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ALMANAC OF CHINA'S ECONOMY (1983)
Volume 1

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ECONOMIC AFFAIRS

ALMANAC OF CHINA'S ECONOMY (1983)

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp I-1 - X-46

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SURVEY OF CHINA'S CLIMATE

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp I 18-I 23

[Article by Wang Li [3769 4539] and Wang Shuting [3769 2885 1694], National Meteorology Bureau]

[Text] Climate is a major resource in the natural environment, and also one of the major conditions for human existence. Efforts to understand the laws governing changes in climate and master trends in climatic changes, as well as to make full use of favorable climatic resources and avoid damage from unfavorable climate is one of the issues that most concerns people in building the four modernizations.

I. Survey of China's Climate

So-called climate is generally meant to mean a place's various meteorological elements and the average state and extremes of weather conditions in it.

A brief description of China's basic climatic conditions based on large amounts of meteorological data is provided as follows:

1. Solar Radiation. Solar radiation is the earth's major source of heat energy, and the dominant element in climate formation. Climatic differences and seasonal changes in different places result largely from latitude and changes in hours of solar radiation. Under normal circumstances, the amount of solar radiation reaching the surface of the earth is greater at low latitudes than at high latitudes, and greater during the half year in which summer occurs versus the half year in which winter occurs. However, distribution of solar energy differs as a result of clouds and rain, winds and snow, and height above sea level of different places.

A look at geographic distribution of the annual amount of solar radiation shows the amount to be greater in northwestern China than in southeastern China. Because of the arid climate, scant clouds and rainfall, large amounts of sunshine, and strong solar radiation in northwest China and Nei Monggol, annually averages 130-180 kilocalories per sq cm. At the Qinghai-Xizang Plateau high above sea level, the air is thin and more solar radiation is received, averaging 180-200 kilocalories per sq cm. Since northeastern China lies at a fairly high latitude, solar radiation is rather weak, amounting

annually to 110-130 kilocalories per sq cm. In most areas to the south of the Huang He, the climate is moist and there is little sunshine, so solar radiation is adversely affected, the annual amount being only 100-120 kilocalories per sq cm. This includes the Sichuan Basin and northern Hunan and Guizhou Provinces, which receive only 80-100 kilocalories per sq cm per year, making them the places in China with least solar radiation. Average total amounts of radiation for various places are shown in Table 1.

Table 1. Average Total Solar Radiation for Each Month

(Kilocalories per square centimeter)

Month / Station name	1	2	3	4	5	6	7	8	9	10	11	12	Total annual amount	No of years recorded
Harbin	4.6	6.4	10.0	11.8	13.6	14.2	13.2	12.1	10.1	7.5	4.8	3.8	112.1	17
Beijing	6.8	8.2	12.2	13.6	16.7	16.1	14.0	13.0	11.9	9.5	6.6	5.9	134.5	17
Lanzhou	6.0	7.7	11.0	13.1	15.5	15.9	15.4	14.3	10.2	9.1	6.7	5.4	130.3	17
Hami	6.7	8.6	12.3	15.2	18.6	18.6	18.1	16.5	13.7	10.6	7.1	5.8	151.8	17
Lhasa	12.4	12.8	16.1	16.7	19.7	19.3	18.5	17.1	15.5	15.7	13.0	11.9	188.7	14
Chengdu	4.4	4.8	7.8	8.8	10.5	10.7	11.5	11.1	7.2	5.5	4.6	4.0	90.9	17
Kunming	9.5	10.4	13.4	14.0	12.4	10.0	10.2	10.0	9.5	8.1	7.8	8.7	124.0	15
Yichang	5.0	5.3	7.0	8.3	9.8	11.6	13.4	13.0	8.7	7.3	5.5	4.4	99.3	17
Shanghai	6.3	6.7	9.1	9.7	11.3	11.0	14.3	14.0	9.5	8.5	6.8	5.9	113.1	17
Guangzhou	7.4	5.9	7.0	7.2	9.7	9.6	11.5	11.3	10.4	10.4	8.9	7.7	107.0	17

A look at the seasonal pattern of solar radiation shows fairly great differences from place to place. Table 1 shows that except for Kunming and Guangzhou, total amount of solar radiation is least during December. Because of an increase in the hours of sunshine around the beginning of February, the amount of solar radiation increases everywhere, the increase being greater in the north than in the south. By June, most places in the north are receiving their maximum value. As the number of hours of sunshine shorten after July, total amount of solar radiation declines correspondingly. Since change in hours of sunshine in southern climes is relatively less, the effect of clouds and rain on the amount of solar radiation is relatively greater. During June, because of the plum rainy season in the middle and lower reaches of the Chang Jiang, solar radiation is greatest during July and August. In Kunming and Lhasa, it is greatest during April and May before the approach of the monsoon season from the southwest.

2. Temperature. Once the surface of the earth receives solar radiation, the temperature of the soil's surface and of air close to the surface of the soil rises as a result of conduction, convection and radiation. As a result, the pattern of air temperature and seasonal changes correspond to the amount of solar radiation.

A look at the pattern of average annual temperatures shows that they tend to be low in the north and high in the south, with the isotherm running in an east-west direction. Heilongjiang Province and northern Nei Monggol are below

0°C, and most of south China and valleys in Yunnan Province are above 20°C. Topography and elevation above sea level also greatly affect air temperature patterns. Though the Qinghai-Xizang Plateau is at roughly the same latitude as the basin of the Chang Jiang and the Huai He, air temperature on the plateau averages more than 15°C lower.

Seasonal changes in air temperature are also extremely marked. January is the coldest month of the year in most parts of China. At this time, air temperature on the vast expanse of land to the north of the Qin Range and the Huai He averages less than 0°C and falls to a maximum low of -20°C. Mohe Town in Heilongjiang Province has had -52.3°C, the lowest recorded. Even in areas south of the Nan Range, temperatures in January average only 10-15°C. July is the hottest month in most parts of China, temperatures averaging between 20-28°C and reaching a maximum of more than 38°C. Highest recorded temperature has been 47.6°C in the Turfan Depression in Xinjiang Province. It should also be pointed out that the area with the lowest temperature in July is not in northeastern China but the Qinghai-Xizang Plateau where temperatures average less than 10°C.

Temperature patterns from January to July permit the deduction that springtime is a season of rising temperatures, and that the rise is faster in the north than in the south. By contrast, autumn is the season of declining temperatures when the decline is greater in the north than in the south. For this reason, the annual comparative difference in air temperature in China (i.e., the difference in average air temperature during the hottest and coldest months) is markedly greater in the north than in the south. Table 2 shows an annual variation of 42.2°C at Harbin, or almost three times the variation of Guangzhou and more than three times the variation at Kunming. See Table 2 for average air temperatures and annual variation at various places.

Table 2. Month by Month Average Air Temperatures and Annual Variation (centigrade)

Station name \ Month	1	2	3	4	5	6	7	8	9	10	11	12	Annual average	Annual variation	Figure for whole year
Harbin	−19.4	−15.4	− 4.8	6.0	14.3	20.0	22.8	21.1	14.4	5.6	− 5.7	−15.6	3.6	42.2	30
Beijing	− 4.6	− 2.2	4.5	13.1	19.8	24.0	25.8	24.4	19.4	12.4	4.1	− 2.7	11.5	30.4	30
Lanzhou	− 6.9	− 2.3	5.2	11.8	16.6	20.3	22.2	21.0	15.8	9.4	1.7	− 5.5	9.1	29.1	30
Hami	−12.2	− 5.8	4.5	13.2	20.2	25.1	27.2	25.9	19.1	9.9	− 0.6	− 9.0	9.8	39.4	29
Lhasa	− 2.2	1.0	4.4	8.3	12.3	15.3	15.1	14.3	12.7	8.3	2.3	− 1.7	7.5	17.5	26
Chengdu	5.5	7.5	12.1	17.0	20.9	23.7	25.6	25.1	21.2	16.8	11.9	7.3	16.2	20.1	30
Kunming	7.7	9.6	13.0	16.5	19.1	19.5	19.8	19.1	17.5	14.9	11.3	8.2	14.7	12.1	30
Hankou	3.0	5.0	10.0	16.1	21.3	25.7	28.8	28.3	23.3	17.5	11.1	5.4	16.3	25.8	30
Shanghai	3.5	4.6	8.3	14.0	18.8	23.3	27.8	27.7	23.6	18.0	12.3	6.2	15.7	24.3	30
Guangzhou	13.3	14.4	17.9	21.9	25.6	27.2	28.4	28.1	26.9	23.7	19.4	15.2	21.8	15.1	30

3. Precipitation. Numerous factors have a bearing on precipitation. It is related to temperature and humidity, and it is closely tied in with the direction of air flow, sources of moisture, and terrain and topography. The pattern of precipitation in China is as follows: more in the south than in the north, more in coastal areas than inland, and more in mountain regions than on plains. Total annual precipitation is between 1,000 and 2,000 mm in the middle and lower reaches of the Chang Jiang and in most parts of south China, more than 2,000 mm in Taiwan Province and eastern Hainan Island, between 500 and 1,000 mm on the Huang-Huai-Hai Plain and in the eastern part of northeastern China, and between 200 and 500 mm in the western part of northeastern China and in the loess highlands, and less than 200 mm in western Nei Monggol, or the northern part of the Qinghai-Xizang Plateau and in most parts of Xinjiang Province. It is less than 20 mm in the basins of southern Xinjiang, the region of least precipitation in China. Table 3 shows the amount of precipitation for various places.

Table 3. Month by Month Amount of Precipitation (Millimeters)

Month / Station name	1	2	3	4	5	6	7	8	9	10	11	12	Annual total	No of years recorded
Harbin	3.7	4.9	11.3	23.8	37.5	77.9	160.7	97.1	66.2	27.6	6.8	5.8	523.3	30
Beijing	2.9	7.4	8.6	19.4	33.1	77.8	192.8	212.3	57.0	24.0	6.6	2.6	644.5	30
Lanzhou	1.4	2.4	8.3	17.4	36.2	32.5	63.8	85.3	49.1	24.7	5.4	1.3	327.8	30
Hami	1.7	1.1	1.0	2.5	2.7	6.2	5.8	4.8	3.2	1.8	1.6	1.5	33.9	29
Lhasa	0.3	0.5	1.8	5.7	24.6	82.2	124.6	140.3	56.0	8.3	1.6	0.5	446.4	26
Chengdu	5.9	10.9	21.4	50.7	88.6	111.3	235.5	234.2	118.0	46.4	18.4	5.8	947.1	30
Kunming	11.6	11.2	15.2	21.1	93.0	183.7	212.3	202.2	119.5	85.0	38.6	13.0	1,006.4	30
Hankou	34.9	59.1	103.3	140.0	161.9	209.5	156.2	119.4	76.2	62.9	50.5	30.7	1,204.6	30
Shanghai	44.0	62.6	78.1	106.7	122.9	158.9	134.2	126.0	150.5	50.1	48.8	40.9	1,123.7	30
Changzhou	36.9	54.3	80.7	175.0	293.8	287.8	212.7	232.5	189.3	69.2	37.1	24.7	1,694.0	30

Great seasonal variations in the amount of precipitation are a striking feature of China's precipitation. Table 3 shows that Guangzhou and Shanghai, which are affected by the southeastern monsoon, have a fairly long rainy season with most precipitation being concentrated between April and September. Since the southwestern monsoon arrives in China relatively late, Kunming, Chengdu and Lhasa get most of their precipitation between June and September. In north China, the rainy season is fairly short, most of the precipitation falling during July and August. This is particularly the case for Beijing. Though northwest China gets little rainfall, most of it arrives during the summer season.

Under most circumstances, places receiving the most precipitation are also the ones with the largest number of days of precipitation. Areas receiving 0.1 mm or more per day of precipitation include the middle and lower reaches of the Chang Jiang and areas to the south of the Chang Jiang, with between 120 and 180 days of precipitation, and Sichuan and Guizhou with between 180 and 200 days or more. Areas famed for "not having 3 clear days in a row" include most areas along the Huai He, the middle and lower reaches of the Huang He, and

most parts of northeastern China where precipitation occurs between 60 and 120 days per year. Most parts of northwestern China receive fewer than 60 days of precipitation, and the basin of southern Xinjiang gets less than 20 days making it one of the country's desert areas.

4. Relative Humidity. Relative humidity means moisture content of the air approaching saturation. The amount of relative humidity is determined largely by moisture content and air temperature. Thus, the relative humidity pattern is similar to the precipitation pattern, which is to say that it decreases from the southeast coast inland toward the northwest in China. In the vast area to the south of the Chang Jiang Basin, relative humidity averages around 80 percent annually. In the basins of the Huang He and Huai He, and in most parts of northeastern China, it is 50-70 percent, and in most parts of northwestern China it is 30-50 percent. This pattern of distribution also shows up in the humidity of southeastern China and the aridity of northwestern China. Table 4 shows average relative humidity for various places.

Table 4. Month by Month Average Relative Humidity (Percent)

Station name \ Month	1	2	3	4	5	6	7	8	9	10	11	12	Annual average	No of years recorded
Harbin	73	69	59	51	51	65	77	79	72	65	66	72	67	20
Beijing	45	49	52	48	52	62	78	80	71	61	60	51	60	30
Lanzhou	58	53	49	48	51	53	61	65	69	69	65	65	59	30
Hami	63	50	34	27	27	33	34	34	36	40	51	62	41	29
Lhasa	28	27	30	35	40	53	67	70	65	48	37	35	45	16
Chengdu	80	80	78	78	77	81	85	85	85	86	84	83	82	30
Kunming	68	63	58	58	66	78	83	84	83	81	77	73	73	30
Hankou	76	78	80	81	80	79	79	78	78	77	77	76	78	30
Shanghai	75	77	78	79	81	84	83	82	81	77	77	76	79	30
Guangzhou	70	78	83	85	86	86	83	83	80	73	68	68	79	30

Seasonal changes in relative humidity show the combined effects of precipitation and temperature in their patterns. Table 4 shows that in many places the lowest average relative humidity occurs not in January and February but in March and April. In Hami and Chengdu, it occurs in April and May. This is because though moisture content of the air is slight during January and February, temperatures are low and thus relative humidity is greater. Despite increase in moisture content during April and May, temperatures climb fast and relative humidity decreases correspondingly.

5. Wind Direction and Wind Speed. Meteorologically, movement of the air is termed wind. Wind is a vector and the direction of its movement is termed wind direction. The distance air moves per unit of time is termed wind speed.

China is a country with a prevailing monsoon climate in which wind direction changes according to seasonal laws. In most southern and eastern parts of the

country that are dominated by a powerful Mongolian high pressure system during winter, prevailing winds are from the north. This includes the loess highlands and the North China Plain, which receive mostly northwest winds, and the basins of the Chang Jiang and the Huai He, which receive mostly northeast winds. During the summer season, the situation is just the reverse. Low pressure from India increases daily and most parts of the country come under its control. Prevailing winds are from the south. Along the southeast coast, winds are mostly from the southeast, and in the Yunnan and Guizhou areas, southwesterly winds predominate.

The geographic pattern of average wind speed is as follows: greater in the north than in the south, and greater along the seacoast than inland. In northeastern China, Nei Monggol, most of northwestern China, and in southeastern coastal regions, wind speeds are 3-5 meters per second. In other places, they are 1-3 meters per second. Because of the closed-in nature of the terrain in the Sichuan Basin, wind speed is less than 1 meter per second in some places. However, seasonal changes in average wind speed are very marked. In most parts of China, more wind blows during winter; in spring wind speeds are great, and during summer and fall, wind speeds are low. See Table 5 for wind speeds in various places.

Table 5. Month by Month Average Wind Speeds (Meters per second)

Month / Station name	1	2	3	4	5	6	7	8	9	10	11	12	Annual average	No of years recorded
Harbin	3.3	3.5	4.3	5.1	4.6	3.7	3.2	3.0	3.5	4.1	4.2	3.7	3.8	20
Beijing	2.9	2.9	3.1	3.4	2.9	2.4	1.8	1.5	1.8	2.1	2.5	2.7	2.5	30
Lanzhou	0.5	0.8	1.2	1.5	1.5	1.4	1.4	1.2	0.9	0.7	0.5	0.3	1.0	30
Hami	2.3	2.5	3.0	3.7	3.7	3.3	3.1	2.9	2.7	2.5	2.4	2.2	2.8	29
Lhasa	2.2	2.4	2.6	2.6	2.5	2.2	1.7	1.6	1.7	1.8	1.9	1.9	2.1	16
Chengdu	1.0	1.0	1.3	1.3	1.3	1.1	1.1	1.1	1.1	0.9	0.9	0.8	1.1	23
Kunming	2.5	2.9	2.9	2.9	2.7	2.2	1.9	1.4	1.5	1.7	1.9	2.0	2.2	30
Hankou	2.7	2.9	3.0	2.9	2.6	2.5	2.8	2.5	2.6	2.4	2.6	2.6	2.7	30
Shanghai	3.2	3.3	3.5	3.5	3.2	3.0	3.2	3.3	2.9	2.8	2.9	2.9	3.1	25
Guangzhou	2.2	2.1	2.0	2.0	1.9	1.8	1.9	1.8	1.9	2.0	2.2	2.2	2.0	30

6. Weather Phenomena. Meteorological factors show marked variation from place to place. Occurrence of various weather phenomena such as high winds are shown in Table 6. Seasonal changes produce frost, snow, fog, hailstorms, freezing rain and rime frost and blizzards.

(1) Frost. Frost is white and flaky crystals formed when moisture freezes on the ground or on things near the ground. It occurs mostly on clear and windless nights. Observation data show the occurrence of frost in most parts of the country; however, there is great variation in the number of frost days. In south China, there are fewer than 10 days; on the Chang Jiang and Huai He plains, there are between 20 and 80 days; and in northeast China and on the Qinghai-Xizang Plateau, there are more than 100 days.

Table 6. Number of Days Per Year of Various Kinds of Weather

Particulars / Station name	Snow showers	Accumulated snow	Frost	Freezing rain	Rime frost	Thunderstorms	Hailstorms	Dense fogs	High winds	Sandstorms	No of years recorded
Harbin	31.1*	102.9	150.1*	0.3*	18.0*	31.0	2.9	12.4	39.9	2.4	20
Beijing	9.5	15.6	87.8	0.7	4.5	35.6	1.1	22.9	26.7	3.6	30
Lanzhou	12.2	17.8	118.0	0.0	0.8	23.6	1.2	1.2	6.3	3.9	30
Hami	6.5	33.5	61.7	0.0	4.3	6.9	0.1	1.7	22.2	13.4	30
Lhasa	7.4*	4.1	133.8*	0.0*	0.0*	72.4	5.9	0.0	26.7	6.0	16
Chengdu	2.4	0.7	21.2	0.1	0.1	35.1	0.2	62.1	3.4	0.0	30
Kunming	2.2	1.0	81.1	0.1	0.0	66.5	1.9	6.2	11.0	0.0	30
Hankou	9.2	8.9	48.4	2.8	1.1	37.8	0.5	33.1	7.9	0.1	30
Shanghai	5.5	3.2	52.5	0.1	0.5	30.1	0.2	43.1	15.2	0.1	30
Guangzhou	0.0	0.0	2.8	0.0	0.0	81.3	0.0	5.1	5.9	0.0	30

*Recorded for only 10 years

(2) Snow showers. By snow showers is meant white, opague, star-shaped crystals that fall from the clouds. Snow showers rarely occur in south China, and the Chang Jiang-Huai He basin and North China Plain have only 5 to 15 days per year. In northeast China and eastern Nei Monggol, they occur fairly frequently for between 15 and 45 days.

(3) Accumulated snow means snow covering the surface of the ground. Since temperatures are fairly low in the north, accumulated snow does not melt; as a result, the number of days of accumulated snow are more numerous than the number of days of snowfall. In south China, however, since temperatures are relatively high, snow does not readily accumulate and the number of days of accumulated snow are fewer than the number of days of snowfall.

(4) Freezing rain and rime frost. Freezing rain is an icy layer that forms when precipitation in a liquid state hits objects on the surface of the ground and directly freezes in overly cold weather. Rime frost is the direct freezing of moisture in the air or crystals formed in overly cold weather when droplets of fog come in direct contact with objects and freeze. These are two not very commonly seen freezing phenomena. Freezing rain occurs most commonly in south China while rime frost is frequently seen in north China, mostly during winter.

(5) Thunderstorms. Thunderstorms are a phenomenon in which electricity is released between cloud banks or between the clouds and the surface of the earth, producing lightning accompanied by the sound of thunder. In China, most places have thunderstorms between 30 and 80 days each year; arid regions of the northwest have fewer, numbering only 10 to 30 days.

(6) Hailstones. Hailstones are precipitation in a solid state, and are either in ball or oval shapes. They frequently accompany thunderstorms. Hailstones occur over wide areas, but do not occur with great frequency in a single area. On the broad plains areas south of the Huang He, they are seen on an

average of only 1 day a year at observation points. They occur more frequently in north China, but only between 1 and 3 days. On the Qinghai-Xizang Plain, however, they fall on an average of 5 to 20 days.

(7) Dense fog. Dense fog means a fog that limits vision to less than 1,000 meters. Fog patterns are fairly complex. Fog occurs frequently along the seacoast, in mountain regions, and in basins; it rarely occurs in arid northwestern China and Nei Monggol.

(8) High winds. Wind speeds of 17 meters per second or with a force of 8 are termed high winds. The pattern of high winds is similar to that of winds of average velocity. In China, high winds are frequent in the north and in areas along the seacoast; high winds are rare inland and in basin areas.

(9) Sandstorms. Sandstorms are windblown sands caused by high winds that limit visibility to less than 1,000 meters. Sandstorms are most frequent in northwestern China and in the loess highlands. They rarely occur in south China.

II. Basic Characteristics of China's Climate

China is located in the southeastern part of the Eurasian continent and borders on the northwestern part of the Pacific Ocean. Since it is affected by overwhelmingly different marine and continental forces, prevailing winds being northerly during winter and southerly during summer, it is one of the most markedly seasonal countries in the world. In addition, because of its vast size and complex topography, its western Qinghai-Xizang Plateau is known as the roof of the world, standing at an elevation above sea level of more than 4,000 meters. The east is a large plains area where the terrain is flat but crisscrossed by mountain ranges and with undulating hills. This also makes for numerous kinds of seasons in the country's seasonal climates, as well as for rich climatic resources.

1. Marked Monsoon Characteristics. Owing to differences in the heat retention capacity of the land and oceans, during summer the land is warmer than the oceans, and during winter the land is colder than the oceans. The changing hot and cold condition of the land and seas causes changes in atmospheric temperature and pressure. When air is warm, it is dense and atmospheric pressure is high; therefore, during winter cold high-pressure systems form in inland Asia giving rise to warm low-pressure systems on the Pacific Ocean. The reverse occurs in summer. The land forms warm low-pressure systems, while cold high-pressure systems form over the ocean. This is very much like the flow of air from a high to a low place, air from high-pressure areas constantly flowing to low-pressure areas. This mostly accounts for China's prevailing northerly winds in winter and prevailing southerly winds in summer.

During winter, winds come from middle and high latitudes of the interior Asian hinterland where the air is cold and dry. Because of the multiple incursions of cold air, China is the coldest of any country in the world at the same latitude. For example average temperature during January in Beijing at 39°54' latitude tends to be about 10°C lower than average temperatures at 40° latitude.

The summer monsoon occurs as both a southeastern monsoon and a southwestern monsoon. The southeastern monsoon comes from the Pacific Ocean and affects mostly the eastern part of the country. The southwestern monsoon comes from the Indian Ocean and the South China Sea, and affects mostly southwestern and southern China. Southern monsoons from tropical oceans carry copious rainfall; consequently, rainfall in most parts of the country is concentrated during the half of the year in which summer occurs. Statistics show that in most parts of the country, rainfall between June and August accounts for more than half of total annual precipitation, and rainfall between May and September accounts for three-fourths of total annual precipitation. Such a highly concentrated precipitation also rarely occurs at the same latitude elsewhere in the world.

2. Numerous Types of Climate. Mohe Town in the northernmost part of Heilongjiang Province is located north of 53° north latitude where the climate is cold. This is a cold temperate zone climate. At the southernmost point of China's Nansha Archipelago, however, which is less than 4 degrees above the equator, the climate is swelteringly hot, and is an equatorial climate.

From east to west, China covers 60 degrees of longitude. The northwest interior is several thousand kilometers from the ocean; rainfall and snowfall are scant; and the climate is arid. Along China's southeastern coast, however, rainfall is copious and the climate is wet.

Complex terrain and great variations in altitude above sea level makes China's climate richer and more varied. Generally speaking, for every 1,000 meter rise in elevation above sea level, average temperature falls by about 5°C. For this reason, even during the height of summer in July, average temperatures in most parts of the Qinghai-Xizang Plateau are below 10°C. The effect of terrain on climate is also very marked. For example, the Tianshan Range marks the dividing land between the central temperature zone and the southern temperate zone in China, and the Qin Range marks the dividing line between the temperate zone and the semitropical zone.

As a result of the aggregate affect of various factors, China is a country with numerous kinds of climate, having more than 40 climatic regions in 10 climatic zones. No country in the world has more.

3. Abundant Climatic Resources. Light, heat, water, and wind are inexhaustible climatic resources. Not only do China's abundant climatic resources create fine conditions for agricultural production, but also provide copious sources of energy for people's daily lives.

Light provides energy for the growth of countless things. Ample solar radiation is the foundation for China's bumper grain and cotton yields. Even in arid northwestern areas, thanks to the strong solar radiation and the copious sunlight, crop diseases and insect pests are few. Most places having requisite irrigation conditions have become production bases for China's superior-quality, long-fiber cotton. Quantity of heat determines crop patterns. In China's eastern regions, summer temperatures are high and there is much cumulative heat; thus even north China can grow heat-loving crops such as paddy

rice, corn and soybeans. These crops are grown over a wide area and farther north than in most places in the world. Summer brings much rainfall, providing copious moisture for vigorously growing farm crops. This season of simultaneous rainfall and heat provides the major guarantee for harvesting consistently high yields. However, in North Africa and the Arabian Peninsula, which are located at roughly the same latitude as the area of China south of the Chang Jiang, are largely world-famous large deserts because they are controlled by subtropical high pressure and the climate is swelteringly arid. By comparison, China's climatic conditions seem much superior.

China has had a long history in the use of wind energy. On the Huang-Huai Plain and the vast pastoral regions, windmills have been used fairly universally to lift water for irrigation and to grind rice and wheat. Copious rainfall, which provides water to generate electricity, is an abundant source of power. Use of solar energy has also attracted widespread serious attention in vigorous development of the four modernizations.

III. China's Most Disastrous Weather

The remarkable monsoon climate does indeed bring numerous advantages, providing favorable conditions for China's development of its abundant climatic resources. However, yet another characteristic of the monsoon climate is inconsistency in seasonal changes. Frequently abnormal changes in the climate produce various kinds of disastrous weather that impair industrial and agricultural production and even endanger people's lives and property.

1. Aridity. Aridity caused by long periods without rainfall is the most frequently occurring disastrous weather for China's agricultural production. In north China, spring drought occurs virtually every year because of the lack of rain and snow during winter and spring. For this reason, there is a popular saying to the effect that "spring rain is more precious than oil." In the middle and lower reaches of the Chang Jiang, spring rains are copious; however, drought frequently occurs during summer and fall; and in Yunnan and the southern part of south China, some areas also experience continuous winter and spring drought.

2. Waterlogging. The most disastrous weather for China's agricultural production is torrential rains that produce flooding and waterlogging. Though the area of flooding and waterlogging is not as great as the drought affected area, the extent of damage is much greater. Since the monsoon rains move from south to north, the flooding and waterlogging that torrential rains bring also advances from south to north. During May and June, waterlogging from rains first appears in south China, moving northward as the rain belt moves. During June and July, the middle and lower reaches of the Chang Jiang enter the season of the plum rains when chances of waterlogging increase markedly. During July and August, the monsoon rain belt moves to north and northeastern China where steady torrential rains frequently result in the flooding and waterlogging of some places. Since southwestern China is under the influence of the southwestern monsoon, waterlogging from rains occurs mostly during July and August. Continuously overcast and rainy autumn weather may sometimes have an adverse effect on the autumn harvest or even cause severe losses.

3. Typhoons. Typhoons are a major disastrous kind of weather occurring in China during the half of the year in which summer occurs. The fierce winds and torrential rains that accompany them often cause serious calamities. However, the typhoon season also occurs during the period of summer drought south of the Chang Jiang, so the rainfall from them often relieves the drought. So-called typhoons refer to low-pressure areas that form over the ocean. When maximum wind speed near their centers increases to between 17.2 and 32.6 meters per second (equal to force 8-11 winds), the term typhoon is applied to them. When wind speeds become greater than 32.6 meters per second, or when winds reach force 12 or more, they are termed strong typhoons. Statistics show 174 typhoons or strong typhoons as having landed in China between 1950 and 1971, an average of 7.9 per year and a maximum of 12 per year. See Table 7 for details.

Table 7. Number of Typhoons Reaching China's Coast Each Month Between 1950 and 1971

Month	May	Jun	Jul	Aug	Sep	Oct	Nov	Total
Total number of typhoons	7	15	40	44	49	10	9	174
Average	0.3	0.7	1.8	2.0	2.2	0.5	0.4	7.9
Percent of annual total	4	9	23	25	28	6	5	100

The course over which typhoons move is extremely erratic. Normally after being born over tropical seas, they move westward or northwestward, or else veer northeastward in the process of movement. Typhoons may land in China at virtually any place along the coast, but most are concentrated in the area to the south of Wenzhou.

4. Cold waves. Cold waves are the principal kind of disastrous weather in China during the half of the year in which winter occurs. So-called cold waves mean a temperature drop of more than 10°C within 48 hours in the middle or lower reaches of the Chang Jiang, or in areas to the north of it, or a low of more than 4°C accompanied by widespread force 5 or above high winds. Statistics show 135 cold waves between 1951 and 1976, or an average of 5.2 per year. For details, see Table 8.

Table 8. Number of Cold Waves Per Month 1951-1976

Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Number	3	29	16	17	22	27	20	1	135
Average	0.1	1.1	0.6	0.7	0.9	1.0	0.8	0.0	5.2
Annual percentage	2	22	12	13	16	20	15	0	100

Variation from year to year in the number of cold waves is very great. Ten cold waves occurred during the winter of 1965-1966, and during the winter of 1968-1969; however during the winter of 1974-1975, only one occurred. The route by which cold waves invade China are three. One is from northwest Asia over a northerly route and having little effect on the country. Another invasion route is from north Asia, with a penetration possibly into south China, having a substantial effect on the country. The third route is from northeast Asia or coastal areas, invading the country from the northeast and affecting mostly the eastern part of the country.

5. Frost. Frost is the principal kind of disastrous weather in China during spring and autumn, and includes late spring frost or early autumn frost.

Late spring frost mostly damages spring seedlings and winter wheat in north China. As atmospheric temperature climbs following the lunar new year, cotton is planted and begins to sprout, while winter wheat begins to joint and boot. During these times, resistance to cold is very weak and should a late frost occur, the crops are prone to freeze damage. Analysis of relevant statistics shows late frosts with freeze damage occurring mostly at the end of March and in mid-April. Areas of greatest occurrence are the central Shaanxi plain, southern Shanxi, northern Hubei, southwestern Shandong, and the northern parts of Jiangsu and Anhui. In these areas, late frosts occur about once every 2 or 3 years, and in some areas they occur once every 3 to 5 years.

Early autumn frosts cause damage mostly in northeastern China, the northern part of north China, and northwestern China, affecting mostly late autumn crops such as cotton, sweet potatoes, soybeans and corn. Such frosts occur mostly between mid-September and mid-October. Early frosts occur over a fairly wide area, but the probability that they will occur is fairly slight and the damage they do is not as serious as late frosts. Analysis of many years' data shows that early frosts occur mostly in years when temperatures tend to be low during summer, when the amount of heat is inadequate, and when farm crop growth and development has been delayed.

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NEW DEVELOPMENTS IN CONTRACT SYSTEM LINKED TO OUTPUT, RURAL COOPERATIVE ECONOMY

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[Text] Restructuring of the economic system of China's rural villages centering around promotion of production responsibility systems has been underway for more than 4 years. Practice has shown that contract responsibility systems linked to output are the most appropriate form. They have demonstrated very good economic results, and the peasants have responded with enthusiasm, particularly to the form whereby individual households are contracting units accepting large-scale assignment of responsibilities. Some comrades have harbored doubts as to whether or not these forms are compatible with the principles of socialism, and whether they are compatible with the goal of agricultural modernization. Practical experience during the past several years provides fairly clear answers to these questions.

I. Promotion of Production Responsibility Systems Is for the Purpose of Perfecting the Collective Economy and Taking China's Own Road of Development

We should first affirm that after the proletariat achieved political power, the party used cooperatives to lead the peasants into socialism. This was the totally correct and only road to take. The socialist restructuring of agriculture begun in China in the 1950's has also been substantially successful. It has brought about the public ownership of the basic means of production, eradicated exploitive systems, assured requirements for agricultural products of people in cities and the countryside, and has assisted the building of industry. These have been major achievements that all can see. Nevertheless, there have been shortcomings, and even mistakes, in our work; furthermore, a newly established social system also requires constant improvement and perfection. Promotion of agricultural production responsibility systems since the 3d Plenary Session of the 11th Party Central Committee has been for the purpose of overcoming these shortcomings, correcting the mistakes, improving the collective economy, blazing a socialist trail that is compatible with China's national circumstances, and winning even greater victories.

Why institute a cooperative system? Ours is a country with a multitude of peasants. Peasants are allies of the proletariat. They are both workers and small

private owners. According to Marxist principles, in order to improve the peasants' economic position and change the backward condition of the agricultural economy, it is necessary to change the system of small private ownership into a system of public ownership. Nevertheless, forcible methods are positively not to be employed, nor are mere paper regulations to be relied on to eliminate the small private ownership system. All that may be done is to adopt methods for gradual economic transition, and it is necessary to find an intermediate transitional link. The cooperative system is one such appropriate link.

First, use of the cooperative system can get the peasants to institute joint labor on the basis of voluntary participation for mutual interest that can become transformed, naturally and without the slightest coercion, into public ownership of the basic means of production for an improvement in their own economic position and avoidance of the suffering of capitalist polarization.

Second, the cooperative system can concentrate scattered funds, which can be used, with support from large-scale socialist industry, to create new socialized production methods and to set up the material prerequisites for a system of socialist public ownership. Furthermore, it can fully develop the productivity that existing production relationships contain.

Third, the cooperative system can gradually bring agriculture, this basic sector of the national economy, into the orbit of the national planned economy. It can also provide peasants with self-determination in their operations, and link state plan guidance with peasant self-determination.

The foregoing three points show that cooperatives are a transitional economic state that can serve as a transitional link, topple the old to give rise to the new, link individual benefits with benefits for the whole, and link the public and the private. Lenin said that it is necessary to find a yardstick whereby individual benefits can be subordinated to common benefits. Cooperatives can provide this yardstick.

The emergence of cooperatives has deep economic roots. They have existed in different socioeconomic states, but they have never had, nor can they have, a fixed form. Their specific form is determined by specific places, times and conditions. The cooperative system began in capitalist societies as self-protective economic unions of small producers to counter capitalist annexation processes. Utopian socialists imagined they could use them as a method for the peaceful transformation of capitalist society, but failed. Social reformers also used the cooperative system as a recipe for reforming old societies, likewise without any results whatsoever. Subsequently, they served as joint organizations for small proprietors, and were used by the bourgeoisie, becoming appendages of capitalism. Marx and Engels gained inspiration from this, and believed that in countries with large peasant populations, once the proletariat had gained political power, the state controlled all large means of production and regulated most production throughout the country, cooperatives could be used under these new historical conditions to build a rural socialist system. They proposed this and that kind of idea on how to use the cooperative system without ever making any particular form binding on everybody. On the contrary, they always urged all revolutionaries to create and explore through practice,

and they consistently emphasized the adaptation of general methods to specific circumstances for a diversity of forms. In his "Problems of French and German Peasants," Engels said that not only should different circumstances in France and Germany be distinguished, but that in Germany distinctions should also be made between circumstances east of the Elbe River and in other areas.

In order to realize the required goals of cooperativization, we might be said to have gone through a long-term process of exploration and practice, and we are continuing to explore and practice. Several periods may be defined in looking back at the situations through which we have passed.

During wartime, supply and marketing cooperatives, work-exchange teams, and mutual-aid teams were set up in liberated areas, all of which were successful. A feature of all of them was not to touch the working people's private ownership system, but to join together only in certain regards and on certain links.

During the early 1950's, acting on the basis of experience in Shanxi and northeastern China, we set up elementary agricultural production cooperatives. These recognized peasant private ownership rights and joined labor together on a private basis for centrally directed undertakings. Bonuses were paid on the basis of shares for land and draft animals committed, but compensation to labor forces was a relatively larger proportion. At the same time, needy families were looked after. All categories of peasants were able to accept cooperatives of this kind. At that time, both the CPC Central Committee and Comrade Mao Zedong actively evaluated them. However, in view of the limitations imposed by economic conditions and the cultural level of the masses, generally small-scale cooperatives were well run, but most large-scale ones were not very successful. These kinds of cooperatives were not operated for very long, and when only 15 percent of all peasants were members of cooperatives, they were spread everywhere. Within 6 months they were transformed into advanced cooperatives, which were more firmly based, and they rapidly turned into people's communes.

People's communes should be divided in terms of time into early and late period for purposes of evaluation. During the initial stage, they fell into "leftist" errors. First was across-the-board public ownership. Not only did the basic means of production become publicly owned, but household sideline occupations were abolished. Second was the institution of a supply system, which negated the laws of value and commodity exchange. These two things were ahead of their historical time. In addition, public messhalls and uncompensated transfer of labor forces led to a "tendency to effect a transition to communism prematurely," and a "tendency toward egalitarianism" which damaged production for a time. Such methods caused very great harm; however, they did not endure for long. Under the leadership of the CPC Central Committee and Comrade Mao Zedong, they were very quickly corrected, and beginning in 1960 a change was made to tri-level ownership in a new system in which production teams and brigades formed the foundation. This played a very great role in stabilizing the situation in rural villages. This was a short-term exercise that made everyone understand that the socialist stage of distributions according to work could not be skipped, and that departure from development of productivity in order to change production relationships arbitrarily could occasion losses. During the 10 years of turmoil, even though the various leftist policies espoused by the gang of four

also caused some areas to sustain losses, as a result of opposition by the masses and leading cadres in most places, no greater universal harm was done.

Advanced agricultural production cooperatives resemble the collective farms of the USSR, and these we should conscientiously study and analyze. Following establishment of people's communes, "trilevel ownership with production teams and brigades as the foundation" was instituted in 1960. In terms of structure, use of "production teams and brigades as the foundation" was in the form of an advanced cooperative, but with the addition of "trilevel ownership" and "political administration and the cooperative being one and the same." Credit should be given the achievements of this form of cooperative organization. Mostly it accumulated some funds, created new productivity, and trained a group of cadres with operating skills. Probably between 10 and 20 percent of the more than 5 million production teams were run well or fairly well. This provided some beneficial experience for future cooperativization. The remainder were not run well or were run very badly. Why were they badly run? The reason lay in excessively homogenized or excessively centralized systems. By homogenized is meant use of a single form nationwide. By centralized is meant that administration and management, and assignment of labor were excessively centralized. In the light of today, such overcentralization interfered with the peasants' full exercise of self-determination in managing the economy, was incompatible with the characteristics of agriculture, and was particularly incompatible with the characteristics of Chinese agriculture.

Agriculture is vital material production and reproduction. It is subject to all the limitations of the natural world (atmospheric temperature, quantity of rainfall, soil, etc). Moreover, these factors are ever-changing and difficult to master. Change in a single element can require the reconstitution of all other elements. Thus, it is especially necessary that somebody with a highly developed sense of responsibility and of being in charge look after matters as patiently as changing circumstances dictate. If the relationship between producers and benefits from what they produce are lacking or insufficiently close, this will be unworkable.

Yet another characteristic of agriculture is that its economic benefits are concentrated in final products. In the production process, every work link affects quality and quantity of final products; however, they are not entities that freeze the value of labor. This necessitates the linking of producers' interests and ultimate economic results so that producers are concerned with final results and conscientiously do a good job on every work link. The former rural system of distribution according to the daily recording of workpoints was incompatible with this requirement.

A third characteristic of agriculture is that its major means of production is land. This is a special means of production. Land is limited in quantity; nevertheless, people's investment in the soil is suddenly transformed into soil fertility, which can provide benefits over a long period of time and produce differing returns. If those who use the soil try to nurture it, the soil becomes better the more it is farmed. Conversely, if they do plundering style farming and trust to luck for food, the soil will become worse the more it is farmed. This is to say that for the sake of the long-term welfare of society, producers

must show a high degree of concern for the soil, and whether or not they show this concern will be determined by whether producers have or do not have stable and close relations of common interest with the soil. Even when land is publicly owned, this point cannot be ignored. But we have not devoted serious attention to it in the past.

China is a vast land in which economic development is very unbalanced, and where most places are still in the traditional stage of agriculture of depending on hand labor. Furthermore, the population is large relative to cultivated land and intensive farming methods must be relied upon. This requires reliance on the initiative of workers.

The foregoing general characteristics of agriculture and of Chinese agriculture permit a conclusion, namely that our cooperative system must embody the following requirement: transition from a system of small private ownership to a system of public ownership. In addition to satisfying various other requirements, attention must be devoted to selecting a proper mix of workers and the means of production, together with a suitable distribution system that can be used to raise the peasants' sense of responsibility and being in charge, and can fire mass enthusiasm for socialism and zeal for the development of production. This is our point of departure in blazing a Chinese style road of cooperativization.

Inasmuch as advanced cooperatives were unable to satisfy the foregoing requirements, their premature carrying out of transitional centralized operations and a system of centralized labor impaired the self-determination of peasants in running production and individual material benefits. In many places, abuses such as "eating out of a large common pot" and egalitarianism developed, and impeded development of productivity.

People mistakenly suppose that even without any improvement in technical conditions, all that is necessary is collective ownership and simple labor cooperation, and the result will be superior to an individual economy. This is not the case, in fact. Labor integration and simple cooperative labor are two different things. If natural household economies are simply amalgamated and labor centralized, there is still no suitable system for encouraging greater gain for greater work. Even benefits to labor from the former small-scale intensive agriculture cannot be maintained, and that can lead to stagnation or even decline in productivity. People have yet another misconception, namely that egalitarianism distribution is fairer and is a system that is more compatible with the socialist spirit. The reverse is, in fact, the case. Egalitarian distribution inevitably produces eating "out of a large common pot." As time goes on, it can also engender new inequities, namely that one group of people lives off the labor of another group of people. In the former system whereby work was evaluated and workpoints recorded, in most communes and brigades it was all recording and no evaluation; males got 10 points where females got 8; equal work did not receive equal compensation and it did not matter whether one did a good or a bad job. In order to meet the needs of highly centralized operations, management cadres correspondingly increased. The compensation they were to receive and their subsidies for carrying out official business all came from the recording of workpoints. Those with improper ideology frequently found

opportunity to record more than they deserved. In addition, there were some households whose rice rations were based on workpoints that were paid less or not paid any funds for grain. This produced "overspending households," and "out-of-points" households. In addition, various social responsibilities were converted into workpoint deductions, which amounted to about 20 to 30 percent of total workpoints. Some of these were fair and some were not. The unfair ones amounted to taking the labor of others without paying for it. This was a contradiction among the people that existed for a long time. Over a period of more than 20 years, efforts were made through rectification, consolidation of cooperatives, and the four cleanups--cleaning up account books, warehouses, assets, and workpoints--to solve these contradictions, but it was never possible to find the right medicine for the illness, so effects were miniscule. However, the abuse of "eating out of a large common pot" became a constantly reappearing accompaniment to social reproduction. In order to eradicate this abuse, the peasants who were hurt by it themselves spontaneously tried time and time again in the more than 20-year period of cooperatives to institute the contracting of production to individual households and received support from some leaders for this. Some places also implemented "fixed targets for output, workdays and costs, with a part of the extra output as a reward." However, they were frequently wrongly criticized and could not implement this system. Nevertheless, objective necessity has a life of its own and always blazes trails for its own growth. Encouraged by the spirit of the 3d Plenary Session of the 11th Party Central Committee, they finally found a consummate form and the contract system linked to output emerged and developed.

II. Ways in Which Contract Responsibility Systems Linked to Output Improved Upon the Cooperative System

Contract responsibility systems linked to output improved upon the cooperative system, first of all, in linking together centralized operations and decentralized operations. The contract responsibility system linked to output contracted farming separately with either individual peasant households or teams according to commonly agreed upon conditions, using publicly owned land and other items used in production. Whatever a single household or team could not do by itself, the cooperative organization handled centrally. Centralization and decentralization existed simultaneously, and it was "contracting" that linked centralization and decentralization. This drew upon the strengths of advanced cooperatives and corrected their shortcomings. It also broke through the limitations of the family economy while retaining its advantages. The superiority of public ownership as well as the flexibility and the initiative that peasant self-determination allowed were brought into play at the same time.

Second, both specialization and coordination existed. With development of a commodity economy, corresponding development of specialization in production also becomes imperative. At such time, some peasants will become either households engaged in more than one occupation or specialized households. Social division of labor inevitably gives rise to social coordination including the coordination of production and the coordination of services provided before production begins and after it ends. Such coordination is a coordination possessed of a fairly high degree of public ownership, and it may also be a coordination that does not disturb ownership at all. Using the coordination of

labor at the grassroots level as the basis for all forms of production, a multi-level coordination is formed as the coordination moves from bottom to top, developing both in depth and in breadth. This produces diversified cooperative economic structures that become linked with the socialist economic system of the country as a whole.

Third is an interlinking of centralized accounting and distributions from sole contracting for task completion. Corresponding with the foregoing trend, the more specialized division of labor develops within the cooperative economy, the more attention must be given to the benefits of producers in different sectors and to how to maintain equilibrium so as to insure that among members of a single unit the principle of the greater the work the greater the gain and the less the work the less the gain is embodied. Furthermore, unified planning with due consideration for all concerned is necessary in consumption versus accumulation, and in distributions among the state, collectives and individuals. This requires maintenance of varying degrees of centralized accounting within set limits. In addition, in order to be able directly to reflect the relationship among rights, responsibilities and benefits, and to encourage peasant concern for production, a method of distributions from sole contracting for task completion has to be adopted for each contracting unit. Distributions from sole contracting for task completion, to use the language of the peasants, are "to guarantee the state's (sales quotas), to hold back sufficient for the collective (public withholdings), the remainder going to ourselves." This gets around the necessity for assigning work, evaluating work, and recording work-points daily. "Benefits are direct; responsibilities are clear; and methods are straightforward." This is the more important distribution system in today's cooperative economy. Of course, some tasks do not lend themselves to the contracting of sole responsibility, so other methods may be used.

The foregoing shows that implementation of a cooperative economy that links centralized operations and decentralized operations, which characterize contract responsibility systems linked to output, is to continue the positive fruits of former cooperativization while negating some of the abuses that formerly existed for improvement of the cooperative system. They are unarguably socialist in nature. Their examination solely in terms of the decentralized form of labor of individual family contracting and in terms of the superficial similarity between them and the individual economy rather than in terms of the overall cooperative economic structure, and their examination in terms of relationship to the overall national economy, and thus suspecting their socialist nature is clearly not correct.

III. The Nature and Function of Family Style Farming at the Present Stage

How to handle correctly family style farming in the cooperativization process is a problem of major significance. Small-scale family farming has a very long history in China. China's historical feudal system differed from the large manor system of some other countries. In China, the landlord economy divided the land into small plots that were rented for farming by peasants who were called tenant farmers. Concurrently, a group of peasants who farmed their own small plots of land existed. The common feature of these two kinds of peasants was that managers and producers were in the same family. Such a decentralized,

minute, agricultural economy formed the basis for feudal rule. For a long time, it stagnated at the level of a backward, natural economy, productivity developed very little and the peasantry sank into poverty for a long time. However, in an overall sense, despite extremely unfavorable conditions, it had the stubbornness to struggle for survival. For a long time, it was constantly subjected to natural disasters and to exorbitant taxes and levies. After countless devastations, it revived countless times.

Liberation brought an end to this tragic history. With the completion of land reform and the striking away of feudal shackles, the small-scale peasant economy took the form of a pure, small, private ownership system and entered the realm of free development. However, by its very nature, a small-scale private ownership system is incompatible with the trend of development toward modernized agriculture. In a commodity economy, hope of perpetuating a small-scale private ownership system is nothing more than the illusion of backward-looking producers. It either is extinguished by a capitalist economy or else becomes a socialist system under the leadership of the proletariat and marches into socialism. There is no third way. History has decided that China should select the latter road; however, cooperativization is still an objective historical process. It is a transition from one economic form to another economic form in a gradual process of the socialization of labor and socialization of the means of production. The length of this process is determined by all sorts of conditions. It cannot be concluded by going through a single transformation. In China, where economic development is unbalanced, for this new cooperative system form of production to rise out of and develop from the existing form of production, it will certainly have to go through a long and varied stage of maturation. In this process, farming by individual households cannot be eliminated some morning. It will be necessary for a certain period of time to use its form and restructure its content to use its potential. In this way, it will be possible to use to the full the large amount of means of production scattered in individual households, and to use effectively traditional skills that the people have accumulated to stir the initiative and enthusiasm of those directly engaged in farming. One principle of Marxism is that "every change in ownership relationships is the inevitable result of the development of new productivity that no longer corresponds to old ownership relationships." Until such time as the productivity contained in old production relationships is no longer used to the full, its function cannot disappear of its own accord. Such is the case with individual family farming.

The experience of socialist countries throughout the world shows that it will be necessary to retain a small amount of the private family economy to supplement socialism for a very long historical period of time. At the present time, China's peasant masses still want to do family style farming within the collective economy. The contracting of output to individual households toward the end of the 1950's was one method the masses created to realize this desire. In terms of the time, this method could not avoid numerous shortcomings; however, after many years of practice, it finally found an equitable form that embodies itself in the contract system linked to output. It is equitable because it sublates the narrowness of small-scale private ownership, leaves room for development through the use of scientific techniques in the future, and also preserves the strengths of family farming. Present-day family farming

has undergone fundamental changes in nature. It is family farming under conditions of public ownership of the land; it is restricted by the collective economy in many ways; it is a level in the cooperative economy; and it is also an integral part of the overall socialist economy. It is neither the individual economy that followed land reform; much less is it the small-scale agricultural economy of the old society, but rather a new kind of family economy. After commodity production develops further, there will still be a few individual operators that will split off from the former collective economy. However, they will continue to maintain relations with the socialist economy or re-form economic connections. For this reason, these individual proprietors are not, in the original sense of bygone days, small-scale private individual households.

IV. Will a Family Style Contract Responsibility System Linked to Output Impede Agricultural Modernization?

According to conventional wisdom, family style farming seems incompatible with modern large-scale production. Here, it is necessary, first of all, to clarify a concept, namely the relationship between modernization and farming operations.

What does agricultural modernization mean? It means use of modern science and technology to equip agriculture for highly intensive operations and highly socialized production. A certain interrelationship exists between modernization and the scale of farming of the land. Large-scale production entails use of machines and other natural power to replace manpower; that this inevitably requires a commensurate scale is without doubt. Both large-scale capitalist agriculture and large-scale socialist agriculture are superior to small-scale agricultural economies. This is also a general law. However, one cannot look only at land area to determine scale of production. Lenin said, "In the process of agricultural intensification, a decrease in peasant household land frequently does not mean contraction of the scale of production, but rather means expansion of the scale of production...." He also said, "The main route for development of capitalist agriculture is still a small-scale economy if figured in terms of land area; but when calculations are changed in terms of scale of production, development of the animal husbandry industry, quantity of fertilizer used, and extent of use of machinery, it becomes a large-scale economy." (See "New Data on Capitalist Development Laws in Agriculture") Clearly, scale of production depends not on the amount of land; the crux lies in the extent of organic formation of funds and the degree of intensivity. Contempory world experience also shows that when there is a high degree of specialization and socialization in the production process, modernization can be carried out from a single hectare to 1,000 hectares, or from single family farming to hired labor farming or collective farming. Family farming and modernization are not mutually incompatible. Certainly a different scale of farming will achieve best economic effectiveness and optimum value in different areas. It is not a case of the bigger the better, or the smaller the better. General methods have to be suited to specific circumstances.

In view of China's circumstances, it may be foreseen that the future form of its agriculture may be as follows: neither large-area extensive farming, nor large-area intensive farming, but intensive farming of relatively small areas. Individual parts will be on a small scale, but overall farming will be on a

large scale. In a vast area of China, population is large relative to cultivated land, and differences between economically developed areas are very great. All-around transformation of agricultural techniques will require a fairly long period of time. Energy problems, transportation problems, and surplus labor problems are restrictive factors. China has a large amount of mountainlands and hills, a changing landscape of paddyfields, and complex farming systems and farming techniques. It has three crop systems, two crop systems, intercropping and companion cropping, etc. An overall look at multiple factors shows that the road of intensive farming must be taken, with an increase in the soil's productivity rate placed in first position. Consequently, it is currently necessary to make the most of the benefits derived from intensivity in small-scale farming. Later on, when the extent of mechanization has increased, the scale of farming can suitably expand; however, in different areas, different combinations of machines will provide a different scale of service. For example, on large plains areas where population is small relative to fields, the scale of farming may be somewhat larger; in other places, it may be somewhat smaller. Forms of land concentration and forms of machine service will have to be created by the masses through practice. It may be said with certainty that as far as working out the combinations of machinery and the scope of service are concerned, the collective ownership system is a fundamental advantage. The contradictions that arise out of a system of private land ownership in Japan and West Europe may be eliminated. The current emergence everywhere of specialized households, specialized teams and joint contracting to provide machine service in farming of the soil has inspired us somewhat. Joint arrangements for machines and land made on the basis of rational land planning and the institution of contract management are by no means unrealistic ideas.

People worry lest a family style contract economy help foster conservative ideas of private ownership among the peasantry. One cannot say this fear is entirely without foundation; however, one must look at the other side of things, which is the dominant side. Peasants today differ from the past. They have become new style workers under the socialist cooperative system. In their acceptance of the contract system, the peasants have broken free from the "large common pot," and "blind guidance" to establish a better and more perfect socialist farming system.

China's socialist economic component holds overwhelming superiority. Even though advanced technology is still not a solid component of China's agriculture, after more than 30 years of efforts, the material prerequisites for definite social productivity have been established and heretofore nonexistent socialism has opened the peasants' eyes. The peasants have seen with their own eyes and learned in practical ways that certain new means of production, new farming techniques and new scientific knowledge can help them increase production. On the North China Plain, a yield of 200 jin per mu used to be called a high yield; today anything less than 400 jin is considered a low yield. They have also come to realize that numerous things cannot be done by a single family or household, but require joint efforts and following the road of cooperativization. As a result, they unanimously support the two fundamental policies put forward by the CPC Central Committee of adhering to public ownership of the means of production, such as land, and preserving necessary commune and

brigade centralized administrative functions. For a time, an extremely small majority of peasants and even cadres committed the error of supposing that responsibility systems meant dividing up the land for individual working. However, once explained, they understood. Now one can see that the masses gladly carry out such things as joint operation of water conservancy, propagation of superior varieties, prevention and control of diseases and insect pests, a centralized farming system and planting plans, and withholdings of public accumulation funds, and they also use contracts to consolidate them. It seems that it is in required centralized operations that the peasants' common interests likewise lie. It is a fact that the masses "want to contract work tasks and fear farming the land alone." The peasants want both decentralization and centralization. "Centralization" that meets economic needs is correct "centralization"; centralization that causes "eating out of a large common pot" is feared. In his report to the 12th Party Congress, Comrade Hu Yaobang spoke of positively not being able to turn back, and this accurately reflects the desires of the masses.

With future division of labor and trades, much of the labor force will be transferred off the land. Farming of the soil will become relatively intensive; fund accumulations will increase; mechanization will not only meet technical standards, but will become very worthwhile economically. At that time, the masses may demand that the contract system suit these changes and perfect its form. In short, we must exercise discrimination in statements about the "superiority of the small-scale agricultural economy," and not propose that a small-scale agricultural economy should become fixed. We advocate moving toward modern, large-scale production; however, we must regard a small-scale agricultural economy and family contracting as being a part of small-scale farming in terms of the amount of cultivated land. A small-scale agricultural economy is characterized as an individual, closed, natural economy. Though small in scale, if our contracting units in the cooperative economy will only use modern science and technology, engage in intensive farming, and socialize production on the basis of a division of labor and division of trades, they can likewise be considered modern, large-scale economies.

Today, some communes and brigades already possess a certain amount of modernization and intensivity. In their selection of forms of responsibility systems, these communes and brigades have already devoted attention to and have managed to maintain and make use of the effectiveness of existing large-scale production facilities, such as use of "centralized operations, specialized contracting, and distributions from sole contracting." This is good. Machinery used in agriculture throughout the country today totals 200 million horsepower; water conservancy facilities already exist on a very large scale; and the trilevel commune, production brigade and production team system has assets worth more than 100 billion yuan. These things must be looked after much better and used adeptly. Reforms must take into account the characteristics of different communes and brigades. There can be no arbitrary uniformity, nor can there be failure to carry out reforms on this account. Reform is for the purpose of solving problems with peasant enthusiasm. Only when this enthusiasm exists is it possible to make fullest use of the role of advanced techniques. Without it, though advanced techniques exist, they cannot be spread. To have advanced techniques is not the same as having advanced production.

V. Do Distributions From Solely Contracted Work and Cash Bonuses Contravene Public Ownership of the Means of Production and Distributions According to Work?

The socialist principles of public ownership and distributions according to work must be maintained. However, one cannot rigidly adhere to imaginary "rational" forms and become divorced from the status of economic development and concrete material conditions at specific times in specific places. Carrying out the principles of public ownership and distribution according to work will go through different historical processes of natural economic development in different countries, and cannot be planned according to the personal will of anyone. The typically most complete form of these two principles requires highly developed social production before they can come about. In undeveloped socialist countries, all aspects of economic life will, to some extent, contain traces of relationships bequeathed by the old society. For example, in China today, public ownership consists of both state ownership and collective (or cooperative) ownership. In addition, individual ownership has also been retained, and collective ownership also exists in diverse forms. All socialist countries of the world retain a little bit of individual economy, and at least retain family sideline occupations. The nature of a country's social system is usually decided solely by the economic forms that hold a dominant or leading position. The economic composition of an entire country is not limited purely and simply to one kind but is diverse, having both dominant and subordinate elements. The form that holds a dominant position controls all other forms. The 12th Party Congress pointed out clearly adherence to the dominance of the state-owned economy with diverse economic forms coexisting simultaneously. This fits in with the basic organization of China's national situation. Experience with the former one-sided seeking after "larger in size and having a higher degree of collective ownership" has made us aware that one should never insist on subordinating abundant experience to abstract concepts and diagrams.

In his "Peasant Problems in France and Germany," Engels addressed the issue of how small-scale agriculture should be handled following seizure of power by the proletariat. He wrote, "First is to change their private production and private ownership into cooperative production and ownership. However, forceful means should not be used, but rather setting an example and providing the help of society for this purpose." In discussing specific forms of cooperation, he introduced a plan that had been proposed by the Socialist Party of Denmark: "Peasants in a village or parish...should combine their individual lands into a large estate and farm it in common, distributing income from it on the basis of shares of land invested, prepaid funds, and the proportion of work put into it." Here land and funds continue to be privately owned. Nevertheless, Engels did not refuse to use this form on this account, rather he introduced cooperatives as a form of carrying it out. The elementary agricultural producer cooperatives of the 1950's in China were organized along similar lines. The mutual cooperation documents that the CPC Central Committee drew up at that time also acknowledged their positive role in the cooperativization movement.

Today we have instituted contract systems linked to output on a foundation of public ownership of land and other basic means of production. The peasants may invest in the land and they may also purchase some means of production. Some

means of production are publicly owned and publicly used; some are publicly owned and privately used; some are privately owned and privately used; and some are privately owned and publicly used. This seems to be an "impure" ownership structure, yet the peasants accept it gladly. It has also brought very good economic benefits, and has helped increase social productivity. What is bad about this?

The same rationale applies to distribution according to work. The original meaning of distribution according to work was an equal amount of compensation for an equal amount of work. However, for various reasons, it was impossible to pay an equal amount of compensation for an equal amount of work with a high degree of precision; it was possible only to make them conform roughly. In this regard, we must teach the peasants not to niggle over every point. However, we positively cannot mix together this education and prevailing policies. Prevailing policies must adhere to distribution according to labor; there can be no practice of egalitarianism. Egalitarianism contravenes the principle of distribution according to labor. During the people's commune era when a similarly egalitarian distribution system was carried out, the lazy received benefits while the industrious were harmed. Obviously that was a failure. Calculation of compensation on the basis of labor norms sounds good in theory, but numerous difficult problems exist in practice from the formulation of norms to the checking of calculations. Labor norms can only be standards for reference; they cannot be precise and unremitting. In practice, the method of evaluating work and recording workpoints is generally used, points being assigned each person and compensation calculated on points. Those who work much do not get more, and those who get more do not work more, so it is impossible to escape the fundamental shortcoming of egalitarianism. However, everyone depends on the struggle for workpoints to live. As time goes on the rational flow of work forces is affected and a tendency toward sameness in rural production is fostered that hurts the creation of employment opportunities for the peasants. In today's contract system linked to output, distributions are made for sole contracting of work. "The state's portion is assured, sufficient is withheld for the collective, and the remainder is one's own." The "remainder" spoken of here includes compensation for funds one has invested. In form, even though one cannot say this is distribution according to labor in the purest sense, still, the more one works and the more one invests, the more one gets, and investment continues to be the materialization of one's own labor. One positively cannot say that this contravenes the principle of distribution according to work. In terms of practical results, this more nearly approaches the principle of distribution according to work than egalitarian distribution methods, and it is a labor compensation system more suited to the level of productivity in rural China at the present stage.

VI. Trends in Development of the Cooperative Economy

As Premier Zhao Ziyang noted in his report to the Fifth Session of the Fifth National People's Congress, "Today's contract responsibility systems linked to output have spread from a few places to most parts of the whole country. They have spread from rural villages to cities and towns, and from agriculture to other realms. ...this shows that they are an extremely effective form for making the most of the superiority of China's socialist economic system in rural

villages at the present stage." Various forms of contract responsibility systems linked to output have already spread to an overwhelmingly large part of the whole country. The task of the moment is to concentrate forces to do a good job of perfecting relevant particulars. Correct handling of the relationship between centralization and decentralization and between specialization and coordination is a major problem facing all jurisdictions. For most communes and brigades throughout the country, the focus of current efforts should be on arousing enthusiasm for development of decentralization. Households contracting farmland, specialized contracting households, and self-employed specialized households should be allowed to develop production as they can and strive to become wealthy through work. This is the only way by which productive forces can see new development; then, later on, gradual strengthening of collective operations and carrying out of economic coordination can be done from a new material foundation. This is also the only way in which to help solve the contradiction of eating out of a "large common pot," so that all economic strength that still labors under restraints can be aroused to transform agriculture from self-sufficiency and semiself-sufficiency to large-scale commodity production, and from traditional agriculture to modern agriculture. Once production has developed and skills have improved, the rural cooperative economy will advance through the desires of the masses themselves and through the movement of the economy itself, thereby avoiding the bad consequences of sole reliance on administrative methods.

Today a new situation has taken place in the rapid development of rural economic diversification, and this has given rise to a group of specialized households. When the production in which these specialized households engage develops further, they will certainly plump for improvement in operating conditions, expansion of operations and clamor for coordination of production, supply and marketing, transportation, processing and scientific and technical services. A certain amount of development has already taken place in these economically developed areas. However, in most parts of the country, there are only a few newly emerging tender buds requiring certain conditions in order to grow and become strong. We must enthusiastically support and help them and create conditions whereby they can develop healthily. However we must not be so impatient for success that we spoil matters through excessive enthusiasm.

The integration of government administration with commune management must be changed to a system whereby government administration and commune management are separate. Grassroots political power must be set up in accordance with provisions of the constitution. Once basic accounting units in existing communes and brigades have instituted contract responsibility systems linked to output, they will have to take responsibility for contracting land, managing water conservancy, public accumulations, signing of contracts and such functions, as well as various service functions. Their size may vary with the size of natural farming areas. As the commodity economy develops, higher level coordination will have to be organized among basic cooperative units and cooperative units that differ in nature to form integrated agricultural, industrial and commercial economic bodies. Where the commodity economy requires cities and towns, cities and towns can be created. Thus, certain central market towns in the countryside will become focal points for the cooperative economy. They will also serve at the same time as links in the economic network between cities and

countryside. In addition, various other supplementary forms may also steadily develop. The foregoing is an all-embracing forecast of prospects for development of the cooperative economy. In the process of development of commodity production and commodity exchange, society will inevitably produce all the factors of multidirectional flow and multiple combinations for production. This is a phenomenon that accords with laws, so it should be guided adroitly and not regarded as a stumbling block or a nuisance.

Large-scale restructuring is underway, and very many problems exist. With solutions to old contradictions, new contradictions arise. However, no matter the contradictions, the power of the power-wielding masses themselves may be relied upon for conscious investigation and solution. This is impossible in a capitalist society. We march toward the future filled with confidence. A basic guiding principle in our work is: constant adherence to the mass line and adherence to the principle of voluntary mass participation. Objective economic requirements may directly or indirectly be manifested through mass will. When we contravene the will of the majority of the masses, we contravene objective economic laws at the same time. In carrying out reforms, we must have some ideas, but we must guard against our ideas becoming immutable things that we force upon the masses. Conversely, we must learn from the masses, respect the pioneering spirit of the masses, respect practical experience and constantly revise our own views.

Erroneous ways of doing things such as acting like a gust of wind, rushing headlong into action, and arbitrary uniformity are incompatible with the mass line. In this reform, "The Central Committee does not advocate forcing anyone, criticizing anyone, or pinning odious labels on anyone. On the contrary, it has consistently emphasized investigation and study, and proceeding from reality in doing everything. It has emphasized suiting general methods to local circumstances, has emphasized diverse forms, has emphasized mass democratic selection, and has emphasized the use of pilot projects to gain experience to guard against acting like a gust of wind or acting with arbitrary uniformity." (Speech by Comrade Wan Li at Agricultural Secretary's Conference and at Rural Ideological and Political Work Conference) Comrades everywhere must act in accordance with CPC Central Committee instructions, adhere to the method of adapting general methods to specific situations, of providing tailored guidance, of running pilot projects first and of advancing with leadership step by step. This method may seem somewhat slow, but it can insure that cadres and the masses have time to improve their understanding on the basis of their own practical experiences, to distinguish right from wrong, and to do things in a solid way that brings benefits. This is the experience borne of success that must be continued. Solution to more complex tasks will also require adherence to this method. The foregoing are some of my individual ideas that have not been thought through very well. I ask everyone to offer criticisms and corrections. (Originally printed in the 7 March 1983 issue of RENMIN RIBAO.)

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STATUS OF CHINA'S NATIONAL ECONOMIC DEVELOPMENT

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 1-III 43

[Excerpts] State Statistical Bureau Selected Statistical Data on China's Economy

I. These data are divided into three parts as follows:

1. Statistical data for the national economy over the years

2. Communique on results of implementation of 1982 national economic and social development plans over the years

3. Explanation of major indices

II. These data do not include figures for Taiwan Province except for China's area.

III. Some of the previously released figures in these data have been revised, and some indices have been changed as a result of changes in units doing the calculations or in the scope of statistics.

IV. For convenience in comparing figures from different periods in these data, relevant data for joint public-private enterprises, private enterprises, and handicraft industry units for the period 1949-1957 have been included in statistics for state-owned enterprises and collectively owned units.

V. Average annual speed of growth provided in these data has been figured by the level method.

1. Statistical Data for the National Economy Over the Years

Population and National Resources

Particulars	End of 1982
National population	1,015,410,000
Social laborers	447.06 million
National area	9.6 million sq km (about 14.4 billion mu)
Average annual precipitation	630 mm
Total annual precipitation	6 trillion cubic meters
Forest area	119.78 million hectares (1.8 billion mu)
Forest cover rate	12.5 percent
Timber reserves	9.35 billion cubic meters
Grassland area	319.08 million hectares (about 4.79 billion mu)
Including: usable area	224.34 million hectares (about 3.37 billion mu)
Freshwater area	16.64 million hectares (about 250 million mu)
Including: area usable for rearing aquatic products	5.03 million hectares (about 75 million mu)
Water power reserves	676 million kW
Marine fishing area	818,000 nautical sq miles (4.2 billion mu)
Marine area suitable for rearing aquatic products	492,000 hectares (7.38 million mu)
Length of continental coastline	More than 18,000 km
Proven coal reserves	740 billion tons
Proven iron ore reserves	44.75 billion tons

1. National population figures include people on active duty in the armed forces.
2. Most of the figures given in this table for forests, grasslands, water surfaces, and water resources have been checked during the past several years; some require further checking and prospecting.

Major National Economic Indicators

Particulars	Units	1952	1957	1965	1978	1980	1981	1982
1. Total yearend population	10,000	57,482	64,653	72,538	96,259	98,705	100,072	101,541
2. Total yearend social laborers	10,000	20,729	23,771	28,670	39,856	41,896	43,280	44,706
Including:								
Staff and workers	10,000	1,603	3,101	4,965	9,499	10,444	10,940	11,281
3. Gross social output value	100 million yuan	1,015	1,606	2,695	6,846	8,496	9,048	9,894
4. Gross output value of industry & agriculture	"	827	1,241	1,984	5,690	6,638	7,547	8,206
Gross output value of agriculture	"	484	537	590	1,459	1,646	2,369	2,629
Gross output value of industry	"	343	704	1,394	4,231	4,992	5,178	5,577
Gross output value of light industry	"	221	374	703	1,806	2,344	2,663	2,815
Gross output value of heavy industry	"	122	330	691	2,425	2,648	2,515	2,762
5. National income	"	589	908	1,387	3,010	3,688	3,940	4,247
6. Revenues	"	183.7	310.2	473.3	1,121.1	1,085.2	1,089.5	1,124
Expenditures	"	176.0	304.2	466.3	1,111.0	1,213.7	1,115.0	1,153
7. Total investment in capital construction	"	43.6	143.3	179.6	501.0	558.9	442.9	555.5
8. Volume of railroad freight turnover	100 million ton km	602	1,346	2,698	5,345	5,717	5,712	6,120
9. Gross retail sales of social commodities	100 million yuan	276.8	474.2	670.3	1,558.6	2,140	2,350	2,570
10. Gross imports & exports (renminbi)	"	64.6	104.5	118.4	355.1	570.0	735.3	772.0
Gross imports	"	37.5	50.0	55.3	187.4	298.8	367.7	357.7
Gross exports	"	27.1	54.5	63.1	167.7	271.2	367.6	414.3
11. Output of major industrial and agricultural products								
Raw coal	100 million tons	0.66	1.31	2.32	6.18	6.20	6.22	6.66
Electric power	100 million kWh	73	193	676	2,566	3,006	3,093	3,277
Crude oil	10,000 tons	44	146	1,131	10,405	10,595	10,122	10,212
Steel	10,000 tons	135	535	1,223	3,178	3,712	3,560	3,716
Cotton cloth	100 million m	38.3	50.5	62.8	110.3	134.7	142.7	153.5
Sugar	10,000 tons	45	86	146	227	257	316.6	338
Bicycles	10,000 units	8.0	80.6	183.8	854.0	1,302.4	1,754	2,420
Sewing machines	"	6.6	27.8	123.8	486.5	767.8	1,039	1,286
Wristwatches	"		0.04	100.8	1,351.1	2,215.5	2,872	3,301
Grain	10,000 tons	16,390.4	19,505.04	19,455	30,475	32,052	32,502	35,343
Cotton	"	130.4	164.0	209.8	216.7	270.7	296.8	359.8
Oilbearing crops	"	419.3	419.6	362.6	521.8	769.1	1,020.5	1,181.7
Pork, beef, mutton/goat	"	338.5	398.5	551.0	856.3	1,205.5	1,260.9	1,350.8
Aquatic products	"	166.6	311.6	298.4	465.6	449.7	460.5	516

1. In this table, gross output value of industry and agriculture for 1952 has been figured on the basis of 1952 constant prices; for 1957 and 1965, it has been figured at 1957 constant prices; for 1978 and 1980, it has been figured at 1970 constant prices; and for 1981 and 1982, it has been figured at 1980 constant prices. All other indices of money sums have been figured in terms of current year prices.
2. Gross output value of industry and agriculture for 1982 figured in terms of current year prices was 829.1 billion yuan. This included a 278.5 billion yuan gross output value for agriculture and a 550.6 billion yuan gross output value for industry (a gross output value of 276.6 billion yuan for light industry and of 274 billion yuan for heavy industry).
3. Social gross output value is the sum total of the gross output value of the five material sectors, namely agriculture, industry, construction, communications and transportation, and business. National income is the sum of the net output value of the foregoing five material production sectors.
4. Total retail sales of social commodities includes retail sales by peasants to nonagricultural residents.
5. Total imports and exports are statistical figures for 1952-1980 from the former Ministry of Foreign Trade; statistics for 1981 and 1982 are from the Bureau of Customs.

Major National Economic Indices
(Indices and Average Speed of Growth)

Particulars	Index (1952 = 100)					1953-1982 Average annual rate of growth (percent)
	1957	1965	1980	1981	1982	
1. Total yearend population	112.5	126.2	170.9	173.3	176.6	1.9
2. Total yearend social laborers	114.7	138.3	202.1	208.8	215.7	2.6
Including:						
Staff and workers	193.5	309.7	651.5	682.5	703.7	6.7
3. Gross social output value	170.9	258.2	849.7	889.6	969.7	7.9
4. Gross output value of industry & agriculture	167.8	268.3	906.0	946.8	1,033.1	8.1
Gross output value of agriculture	124.8	137.1	256.1	270.7	306.6	3.8
Gross output value of industry	228.6	452.6	1,885.3	1,962.7	2,115.7	10.7
Gross output value of light industry	183.2	344.5	1,256.2	1,433.3	1,515.0	9.5
Gross output value of heavy industry	310.7	650.6	3,033.5	2,890.9	3,177.1	12.2
5. National income	153.0	197.5	510.1	525.4	579.1	6.0
6. Revenues	168.9	257.7	590.1	593.1	611.9	6.2
Expenditures	172.8	264.9	689.0	633.5	655.3	6.5
7. Total investment in capital construction	317.2	392.0	1,238.3	981.4	1,274.1	8.8
8. Volume of railroad freight turnover	223.6	448.2	949.7	948.8	1,016.6	8.0
9. Gross retail sales of social commodities	171.3	242.2	773.1	849.0	928.5	7.7
10. Gross imports & exports (renminbi)	161.8	183.3	872.8	1,138.2	1,195.0	8.6
Gross imports	133.3	147.5	777.1	980.5	953.9	7.8
Gross exports	201.1	232.8	1,005.2	1,356.5	1,528.7	9.5
11. Output of major industrial and agricultural products						
Raw coal	198.5	351.5	939.4	942.4	1,009.1	8.0
Electric power	264.4	926.0	4,118.0	4,237.0	4,489.0	13.5
Crude oil	331.8	2,570.5	24,079.5	23,004.5	23,209.1	19.9
Steel	396.3	905.9	2,749.6	2,637.0	2,752.6	11.7
Cotton cloth	131.9	164.0	351.7	372.6	400.8	4.7
Sugar	191.1	324.4	571.1	703.6	752.0	7.0
Bicycles	1,007.5	2,297.5	16,280.0	21,925.0	30,250.0	21.0
Sewing machines	421.2	1,875.8	11,633.3	15,742.4	19,484.8	19.2
Grain	119.0	118.7	195.6	198.3	215.6	2.6
Cotton	125.8	160.9	207.6	227.6	275.9	3.4
Oilbearing crops	100.1	86.5	183.4	243.4	281.8	3.5
Pork, beef, mutton, goat	117.7	162.8	356.1	372.5	399.1	4.7
Aquatic products	187.0	179.1	269.9	276.4	309.0	3.8

Note: Gross output value of society, gross output value of industry and agriculture, and speed of growth of national income have been figured at comparable prices.

Average Daily Major Social Economic Activity in 1982

1. Daily Creation of Wealth Throughout the Country	
Gross output value of society	2.71 billion yuan
Gross output value of industry and agriculture	2.27 billion yuan
Gross output value of agriculture	760 million yuan
Gross output value of industry	1.51 billion yuan
National income	1.16 billion yuan
Revenue	310 million yuan
Raw coal	1,825,000 tons
Electric power	900 million kWh
Crude oil	280,000 tons
Steel	102,000 tons
Cotton cloth	42.05 million meters
2. Average Daily Consumption Throughout the Country	
Total comsumption by city and rural residents	740 million yuan
Per capita consumption	0.73 yuan
Grain	623,000 tons
Pork	32,000 tons
Vegetable oil	10,000 tons
Sugar	12,000 tons
Cotton cloth for use in daily life	27.62 million meters
Bicycle retail sales	61,000 units
Sewing machine retail sales	31,000 units
Wristwatch retail sales	98,000 units
Television set retail sales	21,000 sets
3. Amount of Other Economic Activity Throughout the Country	
Number of passengers carried by all kinds of transport (Exclusive of intraurban transportation)	11.75 million passengers
Staff and worker housing area completed	323,000 square meters
Books published	16.11 million volumes
Magazines published	4.15 million volumes
Newspapers published	38.36 million copies
Correspondence mailed	9.3 million items

[continued]

[continuation of Average Daily Major Social Economic Activity in 1982]

4. Population Changes and Marriages Throughout the Country	
Births	51,000 (35 per minute)
Deaths	17,000 (12 per minute)
Marriages	23,000 couples
Divorces	1,170 couples

5. Daily Urban Activity Throughout the Country (1981)	
Gross output value of industry	1.05 billion yuan
Consumer goods retail sales	250 million yuan
Newly employed city and town residents	220 million yuan
Total amount of water provided	26.57 million tons
Including: Water used in daily life	10.08 million tons
Number of public bus passengers	54.3 million passengers
Garbage hauled away	71,000 tons
Nightsoil removed	42,000 tons

Note: Money indices given in this table have been figured at current year prices.

National Population Figures (Yearend)

Units: 10,000 people

Year	Total population	By sex		Urban or Rural	
		Male	Female	City and Town	Total Rural
1949	54,167	28,145	26,022	5,765	48,402
1952	57,482	29,833	27,649	7,163	50,319
1957	64,653	33,469	31,184	9,949	54,704
1965	72,538	37,128	35,410	13,045	59,493
1978	96,259	49,567	46,692	17,245	79,014
1979	97,542	50,192	47,350	18,495	79,047
1980	98,705	50,785	47,920	19,140	79,565
1981	100,972	51,519	48,553	20,171	79,901
1982	101,541	52,310	49,231	21,154	80,387

Note: Population figures for each year in this table include servicemen on active duty. City and town population includes total population in all constituent districts. Rural population includes county population but not the population of towns.

Population Birth Rate, Death Rate and Natural Rate of Increase

Units: Per thousand

Year	Nationwide		
	Birth rate	Death rate	Natural rate of increase
1949	36.0	20.0	16.0
1952	37.0	17.0	20.0
1957	34.0	10.8	23.2
1965	37.9	9.5	28.4
1978	18.3	6.3	12.0
1979	17.8	6.2	11.6
1981 (census figures)	20.9	6.4	14.5
1982 (random sampling)	21.1	6.6	14.5

Number of Cities Broken Down by Population (end 1982)

Particulars	Broken down by total population: Number of cities (units)	Population (10,000 people)	Percent of total	Broken down by nonagricultural population: Number of cities (units)	Population (10,000 people)	Percent of total
Grand total	239	14,516	100.0	239	9,712	100.0
Less than 100,000 people	17	130	0.9	55	365	3.8
100,000-300,000 people	91	1,731	11.9	105	1,955	20.1
300,000-500,000 people	46	1,784	12.3	31	1,194	12.3
500,000-1 million people	47	3,354	23.1	28	1,993	20.5
1 million-2 million people	25	3,154	21.7	13	1,685	17.3
More than 2 million people	13	4,363	30.1	7	2,520	26.0

Note: 1. Total population figures in this table do not include population in counties belonging to municipalities.
2. For 1982, there should be 245 cities (including central government directly administered municipalities) according to administrative zoning, but data for six is lacking and has not been included.

Population Figures for Cities With More Than 1 Million Population
(Differentiated by nonagricultural population)

Units: 10,000 people

Name of city	Total population as of end of 1982: Total	Including: Nonagricultural population	Name of city	Total population as of end of 1982: Total	Including: Nonagricultural population
Grand total for 20 cities	5,203	4,205	Nanjing	213	174
			Taiyuan	175	128
Shanghai	627	622	Changchun	174	134
Beijing	555	477	Dalian	148	124
Tianjin	513	392	Lanzhou	143	108
Shenyang	402	303	Kunming	143	102
Wuhan	323	273	Ji'nan	132	104
Guangzhou	312	238	Anshan	121	103
Chongqing	265	194	Fushun	119	104
Harbin	255	215	Qingdao	118	108
Chengdu	247	141			
Xian	218	161			

Note: Total population in this table does not include population of counties administered by municipalities.

National Population Census Figures

Units: 10,000 people

Particulars	First 1 July 1953	Second 1 July 1964	Third 1 July 1982	Population structure 1964	Population structure 1982
1. Total national population	60,193	72,307	103,188		
Including: Compatriots in Taiwan Province, Hong Kong and Macao, overseas Chinese and students abroad	2,133	2,849	2,365		
2. Total population by sex	58,060	69,458	100,817	100.0	100.0
Male	30,082	35,652	51,943	51.3	51.5
Female	27,978	33,806	48,874	48.7	48.5
3. Total population by age	57,421	69,458			
18 and older	33,834	37,459			
Including: 80-99 years old	185	181			
100 years old and older	3,384	4,900			
4. Total population by nationality	58,060	69,458	100,394	100.0	100.0
Han race	54,528	65,457	93,670	94.2	93.3
All minorities	3,532	4,000	6,636	5.8	6.6
Uncertain nationality		1	88	--	0.1
5. Total population by city or rural area		69,458	100,817	100.0	100.0
Total city and town		13,046	21,083	18.8	20.9
Total rural		56,412	79,734	81.2	79.1
6. Total population by education		69,122	100,393	100.0	100.0
Including: College & equivalent		288	601	0.4	0.6
Senior middle school		912	6,648	1.3	6.6
Junior middle school		3,235	17,828	4.7	17.8
Primary school		19,582	35,516	28.3	35.4
Illiterate and semi-illiterate (above 12 years of age)		26,340	23,582	38.1	23.5

Note: 1. The third census did not include overseas Chinese.
2. Breakdown of population in items 1 through 5 does not include compatriots on islets such as Jinmen and Mazu in Fujian Province, or in Taiwan Province, or in Hong Kong and Macao.
3. Neither item 6 nor item 4 in the third census includes servicemen on active duty or compatriots in Taiwan Province or in Hong Kong and Macao.
4. Breakdown of population in item 3 of the first census does not include an indirect population census for Xizang.

Third Census Population Figures for Individual Nationalities

Nationality	1 July 1982 Census (10,000 people)	Percent of total population	Nationality	1 July 1982 Census (10,000 people)	Percent of total population
Total for 29 provinces, municipalities, and regions	100,394	100.0	Khalka	11.40	0.01
Han	93,670.38	93.30	Tu	15.94	0.02
Mongolian	341.17	0.34	Daghor	9.40	0.01
Hui	721.94	0.72	Mulao	9.04	0.01
Zang	387.01	0.39	Jiang	10.28	0.01
Uighur	595.71	0.59	Bulang	5.85	0.01
Miao	503.09	0.50	Salar	6.91	0.01
Yi	545.34	0.54	Maonan	3.81	--
Zhuang	1,337.82	1.33	Kelao	5.38	0.01
Buyi	212.05	0.21	Sibo	8.36	0.01
Korean	176.39	0.18	Achang	2.04	--
Manchurian	429.92	0.43	Fumi	2.42	--
Dong	142.51	0.14	Tajik	2.65	--
Yao	140.27	0.14	Nu	2.32	--
Bai	113.11	0.11	Uzbek	1.25	--
Tujia	283.27	0.28	Russian	0.29	--
Hani	105.88	0.11	Owenk	1.93	--
Kazakh	90.76	0.09	Benglong	1.23	--
Tai	83.98	0.08	Baoan	0.90	--
Li	81.76	0.08	Yugu	1.06	--
Lisu	48.10	0.05	Jing	1.20	--
Wa	29.86	0.03	Tartar	0.41	--
She	36.88	0.04	Dulong	0.47	--
Gaoshan	0.15	--	Oronchon	0.41	--
Lahu	30.42	0.03	Hejie	0.15	--
Shui	28.65	0.03	Menba	0.62	--
Dongxiang	27.94	0.03	Luoba	0.21	--
Naxi	24.52	0.02	Jinuo	1.20	--
Jingpo	9.30	0.01	Other unidentified nationalities	87.92	0.09
			Foreigners who have adopted Chinese nationality	0.48	--

Number of Laborers (Yearend figure)

Units: 10,000 people

Year	Number of laborers				Index (1952=100 social laborers)
	Total	Staff and workers	Individual urban laborers	Rural collective and individual laborers	
1949	18,082	809	724	16,549	87.2
1952	20,729	1,603	883	18,243	100.0
1957	23,771	3,101	104	20,566	114.7
1965	28,670	4,965	171	23,534	138.3
1978	39,856	9,499	15	30,342	192.3
1979	40,581	9,967	32	30,582	195.8
1980	41,896	10,444	81	31,371	202.1
1981	43,280	10,910	113	32,227	208.8
1982	44,706	11,281	147	33,278	215.7

Rural People's Commune Development

(1)年 份	农村人民公社 (2) 数(个)	生产大队数 (3) (万个)	生产队数 (4) (万个)	入社户数 (5) (万户)	入社人口 (6) (万人)	平均每个公社有生产大队(个) (7)	平均每个大队有生产队(个) (8)	平均每个生产队有人口(人) (9)
1958	23.630			12.861	56.017			
1965	74.755	64.8	541.2	13.527	59.122	8.7	8.3	109
1978	52.781	69.0	481.6	17.347	80.320	13.1	7.0	167
1980	54.183	71.0	566.2	17.673	81.096	13.1	8.0	143
1981	54.368	71.8	600.4	18.016	81.881	13.2	8.4	136
1982	54.352	71.9	597.7	18.279	82.799	13.2	8.3	139

Key:
(1) Year
(2) Number of rural people's communes (individual)
(3) Number of production brigades (10,000)
(4) Number of production teams (10,000)
(5) Number of households in communes (10,000 households)
(6) Population in communes (10,000 people)
(7) Average number of production brigades per commune
(8) Average number of production teams per brigade
(9) Average population of each production team

Gross Output Value of Agriculture

Units: 100 million yuan

年份 (1)	农业总产值 (2)	农业产值 (3)	林业产值 (4)	牧业产值 (5)	(6)副业产值 合计 (7)	其中(8)队办工业	渔业产值 (9)
(10)1970年不变价格)							
1978	1,458.8	988.6	44.4	193.0	212.5	170.1	20.3
1979	1,584.3	1,059.6	45.0	221.2	238.9	198.0	19.6
1980	1,645.9	1,054.0	50.5	236.7	283.6	240.2	21.1
(11)1980年不变价格)							
1980	2,223.0	1,415.3	94.5	339.6	334.8	247.6	38.8
1981	2,369.2	1,498.3	98.4	359.6	372.4	277.8	40.5
1982	2,629.2	1,649.9	106.8	407.0	420.0	304.2	45.5

Note: 1. Output value of sideline occupations for the period 1980-1982 figured in terms of 1980 constant prices includes output value of peasant family marketable handicrafts.

2. Gross output value of agriculture for 1982 figured in terms of current year prices was 278.5 billion yuan. This billion yuan output value for forestry, a 45.6 billion yuan output value for animal husbandry, a 42.1 billion yuan output value for sideline occupations, and a 5.1 billion yuan output value for the fishing industry.

Key:
(1) Year
(2) Gross output value of agriculture
(3) Output value of agriculture
(4) Output value of forestry
(5) Output value of animal husbandry
(6) Output value of sideline occupations
(7) Total
(8) Including: commune and brigade industries
(9) Output value of fishing industry
(10) 1970 constant prices
(11) 1980 constant prices

Structure of Agricultural Gross Output Value
(Percent of gross output value of agriculture)

Year	Agriculture	Forestry	Animal husbandry	Sideline occupations Total	Including: Commune and brigade industries	Fishing industry
1949	82.5	0.6	12.4	4.3		0.2
1952	83.1	0.7	11.5	4.4		0.3
1957	80.6	1.7	12.9	4.3		0.5
1965	75.8	2.0	14.0	6.5		1.7
1978	67.8	3.0	13.2	14.6	11.7	1.4
1979	66.9	2.8	14.0	15.1	12.5	1.2
1980	63.7	4.2	15.3	15.1	11.2	1.7
1981	63.2	4.2	15.2	15.7	11.7	1.7
1982	62.7	4.1	15.5	16.0	11.6	1.7

Note: The years 1949-1965 figured at 1957 constant prices; 1978-1979 figured at 1970 constant prices; 1980-1982 figured at 1980 constant prices.

Output of Major Agricultural, Aquatic, and Forest Products

Units: 10,000 tons

Name of item	1952	1957	1965	1978	1980	1981	1982
Grain	16,392	19,505	19,455	30,475	32,056	32,502	35,343
Cotton	130.4	164.0	209.8	216.7	270.7	296.8	359.8
Oil-bearing crops	419.3	419.6	362.6	521.8	769.1	1,020.5	1,181.7
Including: cotton	231.6	257.1	192.8	237.7	360.1	382.6	391.6
rapeseed	93.2	88.8	108.9	186.8	238.4	406.5	565.6
sesame	48.1	31.3	25.6	32.3	25.9	51.0	34.2
Jute and ambari hemp	30.6	30.1	27.9	108.8	109.9	126.0	106.0
Mulberry silkworm cocoons	6.2	6.8	6.7	17.3	25.0	25.2	27.1
Tussah silkworm cocoons	6.1	4.5	3.9	5.4	7.6	5.9	4.3
Tea	8.3	11.2	10.1	26.8	30.4	34.3	39.7
Sugarcane	711.6	1,039.3	1,339.2	2,111.7	2,280.8	2,966.8	3,688.2
Sugarbeets	47.9	150.1	198.5	270.2	630.6	636.0	671.2
Flue-cured tobacco	22.2	25.6	37.2	105.3	71.7	127.9	184.8
Fruit	244.3	324.8	324.0	657.0	679.3	780.1	771.3
Aquatic products	166.6	311.6	298.4	465.6	449.7	460.5	516
Marine products	106.0	193.7	201.4	359.8	325.7	323.2	359.4
Freshwater products	60.6	117.9	97.0	105.8	124.0	137.3	156.1
Rubber		0.02	1.66	10.16	11.29	12.8	15.26
Tung oil seeds	43.5	51.8	13.0	39.1	30.3	36.0	33.9
Tea oil seeds	24.9	49.4	35.6	47.9	49.0	65.4	49.4

Agricultural, Aquatic, and Forestry Product Output Indices
(1952 = 100)

Item	1957	1965	1978	1980	1981	1982
Grain	119.0	118.7	185.9	195.6	198.3	215.6
Cotton	125.8	160.9	166.2	207.6	227.6	275.9
Oil-bearing crops	100.1	86.5	124.4	183.4	243.4	281.8
Including: peanuts	111.0	83.2	102.6	155.5	165.2	169.1
rapeseed	95.3	116.8	200.4	255.8	436.2	606.9
sesame	65.1	53.2	67.2	53.8	106.0	71.1
Jute and ambari hemp	98.4	91.2	355.6	359.2	411.8	346.4
Mulberry silkworm cocoons	109.7	108.1	279.0	403.2	406.5	437.1
Tussah silkworm cocoons	73.8	63.9	88.5	124.6	96.7	70.5
Tea	134.9	121.7	322.9	366.3	413.3	478.3
Sugarcane	146.1	188.2	296.8	320.5	416.9	518.3
Sugarbeets	313.4	414.4	564.1	1,316.5	1,327.8	1,401.3
Flue-cured tobacco	115.3	167.6	474.3	323.0	576.1	832.4
Fruit	133.0	132.6	268.9	278.1	319.3	315.7
Aquatic products	187.0	179.1	279.5	269.9	276.4	309.7
Marine products	182.7	190.0	339.4	307.3	304.9	339.1
Freshwater products	193.6	160.1	174.6	204.6	226.6	257.6
Tung oil seeds	119.1		89.9	69.7	82.8	77.9
Tea oil seeds	198.4	133.3	192.4	196.8	262.7	198.4

Numbers of Hogs, Sheep and Goats, and Output of Pork

Year	Fattened hogs removed from inventory (10,000)	Number of hogs at yearend (10,000)	Pork, beef and mutton output (10,000 tons)	Number of sheep and goats at end of year (10,000)		
				Total	Goats	Sheep
1. Absolute figures						
1952	6,545	8,977	338.5	6,178	2,490	3,688
1957	7,131	14,590	398.5	9,858	4,515	5,343
1965	12,167	16,693	551.0	13,903	6,077	7,826
1978	16,110	30,129	856.3	16,994	7,354	9,640
1980	19,861	30,543	1,205.5	18,731	8,068	10,663
1981	19,495	29,370	1,260.9	18,773	7,826	10,947
1982	20,063	30,078	1,350.8	18,179	7,522	10,657
2. Index (1952=100)						
1957	109.0	162.5	117.7	159.6	181.3	144.9
1965	185.9	186.0	162.8	225.0	244.1	212.2
1978	260.5	335.6	253.0	275.1	295.3	261.4
1980	303.5	340.2	356.1	303.2	324.0	289.1
1981	297.9	327.2	372.5	303.9	314.3	296.8
1982	306.5	335.1	399.1	294.3	302.1	289.0

Note: Number of fattened hogs removed from inventory includes state procurement, slaughtering by collectives and individuals, and slaughtering by state-owned farms and other units.

Average Yields Per Hectare of Major Farm Products
(Figured in terms of area sown)

Item		Units	1952	1957	1965	1978	1980	1981	1982
Grain		kg/hectare	1,322	1,460	1,626	2,527	2,752	2,828	3,117
Including:	paddy	kg/hectare	2,411	2,692	2,942	3,978	4,126	4,320	4,878
	wheat	kg/hectare	732	858	1,021	1,845	1,877	2,108	2,449
	corn	kg/hectare	1,341	1,435	1,510	2,803	3,073	3,045	3,258
	soybeans	kg/hectare	815	788	715	1,060	1,097	1,163	1,073
	tubers	kg/hectare	1,879	2,090	1,776	2,690	2,816	2,700	2,850
Cotton		kg/hectare	234	284	420	445	550	570	617
Peanuts		kg/hectare	1,287	1,012	1,042	1,343	1,539	1,545	1,621
Rapeseed		kg/hectare	501	384	598	718	839	1,073	1,372
Sesame		kg/hectare	455	332	386	506	333	623	355
Jute and ambari hemp		tons/hectare	1.94	2.11	2.47	2.64	3.50	4.12	4.31
Sugarcane		tons/hectare	38.89	38.93	38.15	38.46	47.56	53.82	56.46
Sugarbeets		tons/hectare	13.69	9.44	11.61	8.16	14.24	14.60	14.52
Fluecured tobacco		tons/hectare	1.19	0.72	1.15	1.72	1.81	2.18	1.64

Per Capita Output of Major Farm Products

Year	Grain (jin/ capita	Cotton (jin/ capita)	Oil-bearing crops (jin/ capita)	Pork, beef and mutton (jin/ capita)	Aquatic products (jin/ capita)
1949	418	1.64	9.47		1.8
1952	576	4.58	14.74	11.9	5.8
1957	612	5.15	13.17	12.5	9.8
1965	544	5.87	10.14	15.4	8.3
1978	637	4.53	10.91	17.9	9.7
1979	685	4.56	13.28	21.9	8.9
1980	653	5.52	15.68	24.6	9.2
1981	654	5.97	20.54	25.4	9.3
1982	701	7.14	23.45	26.8	10.2

Comparison of Outputs of Major Farm Products
With Maximum Annual Outputs Before Liberation

Item	Units	Maximum year before Liberation		Index (Maximum year before Liberation = 100)			
		Year	Output	1949	1952	1981	1982
Grain	10,000 tons	1936	15,000	75.5	109.3	216.7	235.6
Including:							
paddy	"	1936	5,735	84.8	119.4	251.0	281.2
wheat	"	1936	2,330	59.2	77.9	256.0	293.6
corn	"	1936	1,010	155.1	166.8	577.4	597.0
soybeans	"	1936	1,130	45.1	84.1	82.6	79.9
tubers	"	1936	635	155.1	257.5	409.0	420.2
Cotton	"	1936	84.9	52.4	153.6	349.6	423.8
Peanuts	"	1933	317.1	40.0	73.0	120.7	123.5
Rapeseed	"	1934	190.7	38.5	48.9	213.2	296.6
Sesame	"	1933	99.1	32.9	48.5	51.5	34.5
Jute and ambari hemp	"	1945	10.9	33.9	280.7	1,156.0	972.5
Mulberry silkworm cocoons	"	1931	22.1	14.0	28.1	114.0	122.6
Tussah silkworm cocoons	"	1921	9.4	12.8	64.9	62.8	45.7
Tea	"	1932	22.5	18.2	36.4	152.4	176.4
Sugarcane	"	1940	565.2	46.7	125.9	524.9	652.5
Sugarbeets	"	1939	32.9	58.1	145.6	1,933.1	2,040.1
Fluecured tobacco	"	1948	17.9	24.0	124.0	714.5	1,032.4
Apples	"	1936	12.1		97.5	2,484.1	2,008.3
Citrus	"	1936	40.1		51.6	198.9	234.2
Bananas	"	1937	10.3		106.8	122.6	195.1
Number of large livestock animals at year end	10,000 head	1935	7,151	83.9	106.9	136.5	141.4
Oxen	"	1935	4,827	91.0	117.2	151.9	157.6
Horses	"	1935	649	75.1	94.5	169.1	169.2
Donkeys	"	1935	1,215	78.1	97.2	69.3	74.1
Mules	"	1935	460	32.0	35.6	94.0	97.0
Number of hogs at yearend	"	1934	7,853	73.5	114.3	374.0	383.0
Number of sheep and goats at yearend	"	1937	6,252	67.7	98.8	300.3	290.8
Aquatic products	10,000 tons	1936	150	30.0	111.3	307.0	344.0

Large Livestock Animals

Year	Large animals Total	Including: Draft animals	Cattle	Horses	Donkeys	Mules	Camels
1. Absolute figures (10,000)							
1952	7,646	5,142	5,660.0	613.0	1,180.6	163.7	28.5
1957	8,382	5,368	6,361.2	730.2	1,086.4	167.9	36.5
1965	8,421	4,322	6,695.1	792.1	743.8	144.7	44.8
1978	9,389	5,023	7,072.4	1,124.5	748.1	386.8	57.4
1980	9,525	5,088	7,167.6	1,104.2	774.8	416.6	61.4
1981	9,764	5,471	7,330.1	1,097.2	841.5	432.5	62.8
1982	10,113	5,833	7,607	1,098	899.9	446.4	61.0
2. Index (1952=100)							
1957	109.6	104.4	112.4	119.1	92.0	102.6	128.1
1965	110.1	84.1	118.3	129.2	63.0	88.4	157.2
1978	122.8	97.7	125.0	183.4	63.4	236.3	201.4
1980	124.6	98.9	126.6	180.1	65.6	254.5	215.4
1981	127.7	106.4	129.5	179.0	71.3	264.2	220.4
1982	132.3	113.4	134.4	179.1	76.2	272.7	214.0

Particulars	Units	1952	1957	1965	1978	1980	1981	1982
Actual area machine cultivated in the year	10,000 hectares	13.6	263.6	1,557.9	4,067.0	4,099.0	3,647.7	3,511.5
Irrigated area	"	1,995.9	2,733.9	3,305.5	4,496.5	4,488.8	4,457.4	4,417.7
Electromechanically irrigated area	"	31.7	120.2	809.3	2,489.5	2,531.5	2,523.1	2,514.5
Amount of chemical fertilization	"	7.8	37.3	194.2	884.0	1,269.4	1,334.9	1,513.4
Small rural hydropower stations	Units	98	544		82,387	80,319	74,017	66,256
Electric power generating capacity	10,000 kW	0.8	2.0		228.4	304.1	336.0	353.0
Amount of rural use of electricity	100 million kWh	0.5	1.4	37.1	253.1	320.8	369.9	396.9

Note: 1. Chemical fertilizer figured at 100 percent effective ingredients.
2. Amount of rural use of electricity means electricity used in production and daily living of rural communes and brigades; it does not include amount of electricity used in state-owned units.

Amounts of Major Farm Machines Owned as of the End of the Year

Item	Units	1952	1957	1965	1978	1980	1981	1982
Total farm machine power	10,000 horsepower	25	165	1,494	15,975	20,049	21,319	22,589
Large and medium tractors	mixed	1,307	14,674	72,599	557,358	744,865	792,032	812,447
Hand tractors	10,000 units			0.4	137.3	187.4	203.7	228.7
Large and medium machine-drawn implements	"			25.8	119.2	136.9	139.0	137.4
Combines	Units	284	1,789	6,704	18,987	27,045	31,268	33,904
Drainage and irrigation power machinery	10,000 horsepower	12.8	56.4	907.4	6,557.5	7,464.5	7,498.3	7,669.7
Trucks	Units		4,084	11,063	73,770	137,668	175,126	206,383
Large rubber-tired animal-drawn wagons	10,000 units			133.5	248.8	239.8	233.7	234.4
Rubber-tired pushcarts	"			875.7	2,963.4	3,517.0	4,126.0	4,841.5
Motorized fishing industry boats	10,000 horsepower		10.3	64.0	290.6	351.4	398.7	438.2

State-owned Businesses Agricultural and Sideline Products
State Procurement Quotas and Amount of State Procurement

Item	Units	1987	1979	1980	1981	1982
Procurement quota for agricultural and sideline products	100 million yuan	459.9	586.8	677.0	764.7	855.6
Amount of procurement of major agricultural and sideline products						
Grain	10,000 tons	5,072.5	5,757.0	5,707.0	6,323.5	7,208.5
Edible vegetable oil	"	110.0	146.0	185.0	265.5	293.0
Fattened hogs	10,000 head	10,849	13,004	13,393	12,498	12,963
Beef cattle	"	136.6	164.3	144.6	131.1	136.0
Slaughter sheep	"	979.9	1,128.9	1,151.8	1,393.2	1,301.4
Poultry	10,000	13,855	12,548	10,798	10,418	12,659
Fresh eggs	10,000	55.7	83.5	76.2	70.4	74.1
Aquatic products	10,000 tons	265.5	229.6	205.5	185.4	215.5
Tea	"	23.8	23.7	25.6	28.1	33.7
Cotton	"	209.4	207.5	260.9	287.1	341.3
Jute & ambari hemp	"	53.3	55.4	54.2	60.7	54.1
Fluecured tobacco	"	101.5	78.9	69.5	124.1	174.8
Mulberry silkworm cocoons	"	16.9	20.9	24.3	21.9	25.9
Cowhide	10,000 slabs	443.6	398.0	415.0	360.0	366.5
Sheepskin	"	3,995.8	4,318.1	5,229.1	6,139.1	6,155.9
Goat hair	10,000 tons	14.6	15.5	16.8	17.1	18.2

Note: 1. All figures in this table are calendar year figures.
2. Grain means trade grain; edible vegetable oil includes oilbearing crops converted into oil, processed soybean oil, bran oil, and corn embryo oil; fattened hogs include both live hogs and pork; aquatic products means both dried and fresh; jute and ambari hemp means ripe hemp; sheepskin means both goat and sheepskin; and goat hair includes both sheep's wool and goat's hair.

Makeup of Retail Businesses, Food and Beverage Businesses, Service Trades and Their Personnel

Particulars	1978	1979	1980	1981	1982
1. Makeup (10,000 people)					
Retail businesses	104.8	113.9	146.3	202.3	260.7
Food and beverage businesses	11.7	14.5	29.9	47.7	62.8
Service trades	9.0	13.6	26.0	43.8	59.7
2. Personnel (10,000 people)					
Retail businesses	447.4	562.7	637.7	762.8	870.9
Food and beverage businesses	104.4	139.4	176.5	211.3	238.8
Service trades	56.0	88.4	112.6	148.3	182.4
3. Average number of people in each line (individuals)					
Retail businesses	914	852	672	495	386
Food and beverage businesses	8,189	6,696	3,286	2,100	1,601
Service trades	10,645	7,139	3,779	2,287	1,684
4. Average amount of retail sales in each line (10,000 yuan)					
Retail businesses	13.01	13.53	12.08	9.47	7.93
Food and beverage businesses	4.68	4.39	2.68	1.84	1.57
5. Average number of people served per person in each line (individuals)					
Retail businesses	214	173	154	131	115
Food and beverage businesses	918	696	557	474	421
Service trades	1,711	1,098	873	675	551
6. Average amount of retail sales per person in each line (10,000 yuan)					
Retail businesses	3.05	2.74	2.77	2.51	2.37
Food and beverage businesses	0.52	0.46	0.45	0.41	0.41

Note: This table includes all kinds of economic type businesses, food and beverage businesses, service trades and numbers of personnel in them.

Various Overall Price Indices
(1950 Prices = 100)

(1) 年份	(2) 零售物价总指数	(3) 职工生活费用价格总指数	(4) 农副产品收购价格总指数	(5) 农村工业品零售价格总指数	(6) 工农业商品交换的综合比价指数	
					以农副产品收购价格总指数为100 (7)	以农村工业品零售价格总指数为100 (8)
1952	111.8	115.5	121.6	109.7	90.2	110.8
1957	121.3	126.6	146.2	112.1	76.7	130.4
1965	134.6	139.0	187.9	118.4	63.0	158.7
1978	135.9	144.7	217.4	109.8	50.5	198.0
1980	146.9	158.5	284.4	110.8	39.0	256.7
1981	150.4	162.5	301.2	111.9	37.2	269.2
1982	153.3	165.8	307.8	113.7	36.9	270.9

Key:
(1) Year
(2) Overall retail price index
(3) Overall index of prices for expenditures in staff member and workers daily life
(4) Overall index of agricultural and sideline products procurement prices
(5) Overall index of retail prices for rural industrial wares
(6) Aggregate comparative price index in exchange of industrial and agricultural goods
(7) Overall agricultural and sideline produce procurement price index = 100
(8) Overall rural industrial goods retail price index = 100

Various National Price Indices (1982)

(1) 项目	(2) 以1952年价格为100	(3) 以1965年价格为100	(4) 以1978年价格为100	(5) 以1981年价格为100
(6) 各种物价总指数（包括牌价、议价、超购加价和市价）				
(7) 职工生活费用价格总指数	143.4	119.2	114.4	102.0
(8) 零售物价总指数	137.2	113.8	112.8	101.9
(9) 农副产品收购价格总指数	253.1	163.8	141.5	102.2
(10) 农村工业品零售价格总指数	103.6	96.0	103.5	101.6
(11) 集市贸易消费品价格指数	235.8	136.1	105.8	103.3

(1) Particulars
(2) 1952 price = 100
(3) 1965 price = 100
(4) 1978 price = 100
(5) 1981 price = 100
(6) Overall price index for various goods includes list price, negotiated price, premium excess procurement price, and market price)
(7) Overall price index for staff member and worker living expenses
(8) Overall retail price index
(9) Overall procurement price index for agricultural sideline products
(10) Overall retail price index for rural industrial goods
(11) Country fair trade consumer goods price index

Random Sampling Data on Peasant Family Receipts and Expenditures

1. Basic Circumstances of Sampled Households

Particulars	Units	1978	1979	1980	1981	1982
Number of households surveyed	Households	6,095	10,282	15,914	18,529	22,775
Permanent number of people in surveyed household	Persons	34,961	58,153	88,090	101,998	124,286
Average number of permanent residents per household	"	5.74	5.66	5.54	5.50	5.46
Average number of full- and part-time workers per household	"	2.27	2.38	2.45	2.53	2.58
Average number of people supported per worker	"	2.53	2.38	2.26	2.17	2.12
Average number of new rooms built per household during the year	Rooms	0.11	0.22	0.23	0.27	0.29
Average number of rooms used per household at yearend	"	3.64	3.84	4.06	4.28	4.56
Average room area per capita at end of year	Square meters	10.17	11.03	11.59	12.47	13.41

2. Average Net Income Per Peasant Family

Particulars	1978	1979	1980	1981	1982
I. Average per capita net income (yuan)	133.57	160.17	191.33	223.44	270.11
1. Income derived from collective	88.53	101.97	108.37	116.20	140.12
2. Net income from family sideline occupations	35.79	44.00	62.55	84.52	102.80
3. Other nonborrowed income	9.25	14.20	20.41	22.72	27.19
II. Percentage (Net income = 100)					
1. Income derived from collective	66.28	63.66	56.64	52.00	51.87
2. Net income from family sideline occupations	26.79	27.47	32.69	37.83	38.06
3. Other nonborrowed income	6.93	8.87	10.67	10.17	10.07

Note: In this table, "derived from collective" means all income peasants obtained from collectives, including from basic accounting units as well as from all income paid commune members by collective units at all levels that are not basic accounting units. It also includes actual income peasants have received from the contracting of collective production. "Other nonborrowed income" means cash and the converted value of goods mailed or brought into China from outside, assistance to the needy provided by the state, assistance paid civilian laborers, assistance paid to disabled servicemen and other nonborrowed income.

3. Average Peasant Family Per Capita Living Expenses

Particulars	1978	1979	1980	1981	1982
I. Average per capita living expenses (yuan)	116.06	134.51	162.21	190.81	220.23
1. Living expense payments	112.90	130.81	157.95	186.17	215.30
Food	78.59	86.03	100.19	113.83	133.20
Clothing	14.74	17.64	19.99	23.57	24.77
Fuel	8.28	8.34	9.66	10.59	12.36
Housing	3.67	7.66	12.80	18.67	22.58
Items used in daily life and other	7.62	11.14	15.31	19.51	22.39
2. Payments for cultural and living services	3.16	3.70	4.26	4.64	4.93

[continued]

[continuation of 3. Average Peasant Family Per Capita Living Expenses]

Particulars	1978	1979	1980	1981	1982
II. Percentage (Living expense payments = 100)					
1. Living expense payments	97.28	97.25	97.37	97.57	97.76
Food	67.71	63.96	61.76	59.66	60.48
Clothing	12.70	13.12	12.32	12.35	11.25
Fuel	7.14	6.20	5.96	5.55	5.61
Housing	3.16	5.69	7.89	9.79	10.25
Items used in daily life and other	6.57	8.28	9.44	10.22	10.17
2. Payments for cultural and living services	2.72	2.75	2.63	2.43	2.24

4. Payments of a Commodity Nature as a Percentage of Peasant Living Expenses (Each category of expenditure = 100)

Particulars	1978	1979	1980	1981	1982
Living expense payments	39.7	44.5	50.4	56.1	56.5
Food	24.1	25.8	31.1	36.6	38.0
Clothing	89.0	91.6	98.1	98.6	98.4
Fuel	31.9	32.4	28.7	25.1	22.7
Housing	95.1	95.6	88.8	94.2	96.1
Items used in daily life and other	87.7	88.9	96.3	98.2	98.7

5. Peasant Family Average Per Capita Amount of Consumption

Item	Units	1978	1979	1980	1981	1982
Food (unprocessed grain)	Jin	496	513	514	512	520
Including: fine grains	"	245	279	326	345	384
Vegetables	"	283	262	254	248	264
Edible oil	"	3.94	4.76	4.97	6.25	6.86
Meat	"	11.51	13.01	15.49	17.41	18.10
Poultry	"	0.50	0.63	1.31	1.41	1.56
Eggs	"	1.59	1.79	2.39	2.50	2.85
Fish and shellfish	"	1.68	1.39	2.19	2.56	2.63
Sugar	"	1.46	1.60	2.12	2.19	2.37
Alcoholic beverages	"	2.44	2.83	3.78	4.64	5.46
Cotton	"	0.79	0.89	0.76	0.66	0.77
Cotton cloth	Chi	16.90	15.60	12.89	12.62	11.83
Chemical fiber cloth	"	1.24	2.18	2.81	3.70	4.59
Wool	"	0.07	0.17	0.18	0.18	0.12
Silk and satin	"	0.06	0.15	0.17	0.15	0.16
Down and down clothing	Jin	0.04	0.07	0.09	0.14	
Rubber shoes, sneakers, leather shoes	Pair	0.32	0.44	0.51	0.49	0.48

National Urban and Rural Savings Deposits (Yearend balances)

(1) 年份	(2) 总计（亿元）	(3) 城镇储蓄（亿元）		(6) 农村社员储蓄（亿元）	(7) 平均每人储蓄金额（元）
		(4) 合计	其中：(5) 定期储蓄		
1952	8.6	8.6	4.8		1.5
1957	35.2	27.9	19.6	7.3	5.4
1965	65.2	52.3	43.4	12.9	9.0
1978	210.6	154.9	128.9	55.7	21.9
1980	399.5	282.5	228.6	117.0	40.5
1981	523.7	354.1	289.4	169.6	53.3
1982	675.4	447.3	365.2	228.1	66.5

Key:
(1) Year
(2) Grand total (100 million yuan)
(3) City and town savings deposits (100 million yuan)
(4) Total
(5) Including: Time deposits
(6) Rural commune member deposits (100 million yuan)
(7) Average per capita savings (yuan)

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EXPLANATION OF PRINCIPAL INDICES

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 54-III 57

[Text] As a convenience to readers using these data, a brief explanation is given in this section on the statistical scope, methods of calculation and historical changes in some principal indicators.

1. National Population. Population figures for each year are the number of permanent residents as of 31 December. For the time being, total national population figures do not include compatriots living in Taiwan Province, Hong Kong and Macau, or overseas Chinese.

Population of cities and towns and population of rural villages has been set on the basis of permanent residents in jurisdictional areas. Up until 1963, when permanent residents numbered more than 2,000 and nonagricultural population was more than 50 percent, the place was termed a town; places with less than this population were termed rural villages, and agricultural population living within the jurisdiction of a town were also included in town population. Beginning in 1964, this was chan ed so that places having more than 3,000 permanent residents, more than 70 percent of whom were nonagricultural population, were termed towns, and places with less than this population were termed rural villages. Town population in counties under municipal jurisdictions was also included in total city and town population.

2. Social Laborers. Social laborers is a term applied to all laborers who have specific jobs in society and who either receive compensation for their labor or receive income for what they do. It includes staff members and workers under state or city and town collective ownership, workers under rural collective ownership and individual workers in towns and villages. (Those not of working age who regularly engage in social labor for which they receive compensation are also figured in.) The term social laborers does not apply to those awaiting employment, waiting to go to school or those who do housework.

Industrial laborers include staff members and workers in industrial enterprises under either state ownership or city and town collective ownership, city and town individual handicraft workers and workers in enterprises run by people's communes.

Agricultural workers include the farm workers of state ownership organs and city and town collectives who normally pursue agricultural (forestry, animal husbandry, sideline production, fishery) labor as well as the laborers in rural communes who do agricultural (forestry, animal husbandry, sideline production, fishery) labor.

3. Number of Staff Members and Workers. The term staff members and workers applies to those who produce or work in state-owned or city and town collectively-owned enterprises and institutions, as well as in national organizations or people's organizations at various levels, and who receive wages from them. It includes cadres who work in primary-level management organizations in rural people's communes and who receive wages from the state. It does not, however, include workers in rural people's communes, production brigades and production teams, or those who work in commune- and brigade-operated enterprises or institutions, sharing in distribution of income from them.

4. Forest Area, Forest Cover Rate, Forest Timber Reserves. Forest area includes both the artificially afforested area and the natural forest area. It does not include scrublands or sparsely wooded areas. Forest cover rate means the forest area as a proportion of national area. Forest reserves include all timber reserves including young trees, medium-age trees, mature trees, overage trees, and dead timber.

5. Grassland Area. Grassland area means the total of natural grasslands, manmade grasslands and improved grasslands; it does not, however, include grassy mountains and slopes in pastoral regions.

6. Social Gross Output Value. This is also termed social gross product and is a major indicator of the total results of a country's development of material production during a specific period of time. It includes the sum total of gross output value of the five material production sectors, namely agriculture, industry, the construction industry, the transportation industry and commerce (including goods supply and marketing industries and food and beverage industries). It includes: 1) the converted value of means of production consumed in the production process, and 2) newly created value by workers.

7. National Income. National income is the sum total of net income within a specific period of time of the five material production sectors, namely industry, agriculture, the construction industry, the transportation industry and commerce (including goods supply and marketing industries and food and beverage industries). China has two methods of calculating national income as follows: 1) the production method which uses the gross output value of all material production sectors less value of materials consumed in production (such as consumption of raw and processed materials used in production, seeds, fertilizer and fuel, plus depreciation of fixed assets used in production); 2) the distribution method, which starts with the very first distribution of national income as equivalent to the sum of laborers' compensation for labor plus profits, taxes and interests in the production sector.

The nonmaterial production sector such as the service, scientific, cultural, educational and health sectors as well as the state administration and management sector and the national defense sector, which provide beneficial services to the people's life and to production of material goods. This is an indispensable part of total social development, but does not form a direct part of material production. In China, nonmaterial production sectors are not figured in national income.

Amounts of national income that are distributed and redistributed are placed in two major categories of consumption funds and accumulation funds.

Consumption funds are those portions of national income that are used for consumption in the daily life of the people and for common consumption by society. The material form they take is the total amount of consumer goods consumed by individuals and society within a certain period of time, plus depreciation of dwellings. Average level of consumption of residents is figured in terms of residents' individual daily life consumption funds divided by average population.

Accumulation funds are that portion of national income used in social expansion of reproduction and in productive construction as well as for increasing social productive reserves and nonproductive reserves. The material form they take is new accretions of fixed assets by the production sector and nonproduction section within a certain period of time (less depreciation of all fixed assets for that same period), and the circulating capital in form of real goods newly added by all production sectors and the material reserve sector. Accumulation and nonproductive accumulations. They may also be divided into terms of fixed assets accumulations and circulating capital accumulations.

The percentage of accumulation funds in the amount of national income used is termed the accumulation rate.

8. Gross Output Value of Agriculture. In China, agriculture includes farming (the growing of crops), forestry, animal husbandry, sideline occupation and fisheries.

(1) The growing of farm crops includes the growing of grain, cotton, oilbearing crops, sugar crops, various kinds of hemp, tobacco, vegetables, medicinal materials, melons, green manure and livestock fodder, plus tea plantations, mulberry groves and fruit orchards.

(2) Forestry includes the growing of forest trees (not including tea plantations, mulberry groves, and fruit orchards), the harvesting of forest products and felling of bamboo and timber by production brigades and production teams.

(3) Animal husbandry includes the raising and grazing of all livestock plus fishing industry reproduction.

(4) Sideline occupations include the gathering of wild plants and the hunting of wild game, plus industries run by production brigades and production teams.

(5) The fishing industry includes the rearing and harvesting of aquatic animals and marine algae.

The system of ownership includes various kinds of specialized farms (forest, livestock and fish) and experimental agricultural farms and institutes under state ownership; farming, forestry, animal husbandry, sideline occupations and fishing industries in collectively owned rural people's communes, production brigades and production teams, plus the planting of farm crops, the rearing of animals, and household sideline occupations operated by individual members of people's communes.

Gross output value of agriculture is the expression in monetary terms of the gross output of all products derived from farming, forestry, animal husbandry, sideline occupations (including brigade-operated industries) and the fishing industry, and it reflects overall results in agricultural production over a specific period of time. It is usually calculated by multiplying the output of farm, forest, animal husbandry, sideline occupation and fishing industry products by the unit price of the products to derive output value of those products. The sum of the output value of individual products is the gross output value of agriculture.

Up until 1957, the gross output value of agriculture included barnyard manure and handicrafts made by peasants for their own use (such as clothing, shoes, and stockings that peasants made for themselves and rudimentary processing of grains). After 1958, bamboo and timber cut by production brigades and production teams was added to forestry as part of the gross output value of agriculture; barnyard manure was removed in calculating output value of the animal husbandry industry; and handicrafts manufactured by peasants for their own use was eliminated from the output value of sideline occupations while output value of industries run by production brigades and production teams was added. In the fishing industry, the output value of ocean catches was added. In 1980 and every year thereafter, the output value of peasant household handicraft industries that produced marketable products was included.

9. Grain Output. Grain output includes paddy rice, wheat, corn, gaoliang, millet and miscellaneous other grains, plus tubers and soybeans. Output value of beans is figured in terms of dry beans after removal of pods. For tubers (including sweet potatoes and potatoes, but not including taro and cassava), up until 1963 output value was figured in terms of 1 jin of grain per 4 jin of fresh tubers. In 1964 and thereafter, it was figured in terms of 1 jin of grain per 5 jin of fresh tubers.

10. Aquatic Products Output. Output of aquatic products means both the amount of aquatic products reared by man and catches of naturally growing aquatic products. It includes marine fish, shrimp, lobster, crabs, scallops and algae, as well as freshwater fish, shrimp, crayfish, crabs and scallops. It does not include fresh water plants, however, aquatic products that are still in process of being reared and have not been harvested are not figured in output calculations.

11. Gross Farm Machine Power. By gross farm machine power is meant the sum of the power of various kinds of power machinery used mostly in farming, forestry, animal husbandry, sideline occupations and fisheries. This includes plowing machines, irrigation and drainage machines, harvesting machines, machines for the processing of farm products, transportation machines, plant protection machines, livestock industry machines, forestry machines, fishing industry machines and other agricultural machines. Internal combustion machines are figured in terms of horsepower; electrically powered machines are figured in terms of power converted into horsepower.

12. Irrigated Area. By irrigated area is meant the effectively irrigated area, i.e., the cultivated land area that has certain sources of water where the land is relatively flat, where irrigation projects have been built or equipment already installed, and where it is possible to carry out irrigation in normal harvest years.

13. Gross Industrial Output Value. In China, industry includes the following:

(1) Development of natural resources such as the mining of ores, the evaporation of brine to make salt, and the felling of timber (but not including hunting wild game or catching aquatic products).

(2) Processing of agricultural and sideline products such as milling rice, grinding flour, fermenting alcoholic beverages, crushing oilbearing crops, ginning cotton, reeling silk, slaughtering and processing medicinal materials.

(3) Processing of industrial products such as smelting steel and iron, rolling steel, coking, chemical industry production, manufacturing machinery, processing timber, textiles, printing and dying, processing clothing and papermaking.

(4) Repair of industrial goods such as repair of machinery and equipment, or of communications and transportation equipment.

(5) Running water and coal gas production, and production and supply of electric power.

Gross output value is the expression in monetary terms of the total products produced by industrial enterprises. It reflects results and overall scale of industrial production during a specific period of time. Currently the "plant method" is used to figure gross industrial output value. This includes the value of products a given enterprise sends to warehouses that meet product quality specifications (both products made from one's own raw materials and products deriving from the processing of imported materials being figured at full value), and the value of industrial jobs contracted for outside China. Duplication of calculations within an enterprise is not allowed; however, a duplication of calculations exists among enterprises.

After 1958, the figuring of gross industrial output value in terms of the total value of products such as ginned cotton, milled rice, ground flour, slaughtered animals and sewing machines produced by rural people's commune industries was changed. Figuring was done thereafter in terms of processing

expenses, and output value of mechanized fishing plus cutting of bamboo and timber by production brigades and production teams was included in the gross output value of agriculture.

14. Heavy and Light Industry. Heavy industry usually means industries that produce the means of production, and heavy industry is the foundation for supply of materials and technology to all sectors of the national economy. It includes the following two kinds of industries:

(1) Extraction industries, meaning extraction of petroleum, mining of coal, mining of metal ores, mining of nonmetallic ores, and timber-felling industries.

(2) Manufacturing industries, meaning processing industries within heavy industry, including industries that provide needed raw and processed materials, power and fuels for manufacturing industries, as well as industries that equip all sectors of the national economy with production machinery and equipment.

Light industry usually means industries that provide consumer goods for daily life. They include the following two kinds:

(1) Light industries that use agricultural products as raw materials. This includes, cotton, wool and hair, hemp, silk spinning and weaving and sewing, leather and leather products, paper pulp and papermaking, and food industries, etc. These industries use agricultural products either directly or indirectly as basic raw materials.

(2) Light industries that use nonagricultural products as raw materials. This includes metal manufactures used in daily life, manufacture of machines used in daily life, chemical products used in daily life, chemical fibers and textile products made from them, manufacture of salt, glass for daily life, porcelain for daily life, processing of fuel for use in daily life, etc.

On the basis of the foregoing principles of designation, when an object requiring repair is in the nature of heavy industry, it is designated heavy industry; otherwise it is designated light industry.

Gross output value of both light and heavy industry are also figured in terms of the "plant method," i.e., when under normal production circumstances an industrial enterprise's main products are in the nature of light industry, that enterprise's gross output value is regarded as the gross output value of light industry. When an industrial enterprise's main products are in the nature of heavy industry, that enterprise's gross output value is regarded as the gross output value of heavy industry.

15. Independent Accounting Industrial Enterprises. Industrial enterprises are divided into independent financial industrial enterprises and nonindependent financial industrial enterprises on the basis of whether their financial affairs are independent or not.

Independent accounting industrial enterprises must also possess the following three conditions at the same time:

(1) an independent organizational form administratively;

(2) independent accounting of profits and losses, and preparation of independent fund balance sheets;

(3) authority to sign contracts with other units, and having an independent account with a bank. No matter whether an independent accounting industrial enterprise produces alone or in combination with others, the entire enterprise acts as a grassroots unit for statistical purposes.

16. Major Financial Indices for Industrial Enterprises

(1) Original value of fixed assets means the original price paid for all fixed assets owned. This is figured in terms of actual amounts paid for all fixed assets at the time of purchase or construction. It includes existing fixed assets taken over following liberation, fixed assets completed through capital construction and turned over for use, fixed assets increased through the tapping of potential, modification or transformation, and purchases of fixed assets from time to time, etc.

(2) Net value of fixed assets means original value of fixed assets less value after withholdings for depreciation over the years.

(3) Designated circulating funds means total funds used for various materials in the production process. It includes various kinds of raw materials, processed materials, fuels, spare parts, containers, and readily consumed goods of low value kept in reserve; products in the course of being manufactured and semifinished goods in the production process and finished goods in storage.

(4) Total funds are the sum of the net value of fixed assets plus designated circulating funds.

17. Industrial Enterprise Labor Productivity Rate. Industrial enterprise labor productivity rate means the average amount of output per staff member and worker in the industry. At the present time in China, this is figured on the basis of gross output value of industry and the per capita average for all staff members and workers in an industrial enterprise. The formula is as follows:

$$\text{Labor productivity rate for all personnel in an industrial enterprise} = \frac{\text{Industrial gross output value}}{\text{Per capita average for all staff and workers}}$$

The labor productivity rate for industrial enterprises in these data includes only state-owned independent accounting industrial enterprises; it does not include collectively owned industrial enterprises and nonindependent accounting industrial enterprises. In order to compare labor productivity rate figures for separate years, industrial gross output value for each year is converted to 1980 constant prices.

18. Investment in Fixed Assets. This is the expression in monetary terms of the amount of work done for building or buying fixed assets. It is an overall indicator reflecting scale of investment for and direction of use of fixed assets. In accordance with China's system of planned management, fixed assets of state-owned units are divided into two groups, namely those resulting from capital construction and those resulting from modification and transformations. Investment in fixed assets by the whole society also includes investment by collectively owned units in cities and the countryside, and investment in the building of houses by individuals in cities and the countryside.

Capital construction investment is the expression in monetary form of the amount of capital construction work done. It is an overall indicator that reflects the scope of capital construction and progress in construction during a particular period of time. It is the amount of work as calculated on the basis of actual progress on the project in accordance with budgeted cost (budgeted costs being the costs used when working up the working drawing budget). Construction materials that have not yet been made a part of the project in being, and equipment to be installed that has not yet begun to be installed are not figured in amounts actually invested.

Amounts actually invested in capital construction and funds disbursed for capital construction are indices having two different meanings. Funds actually invested in capital construction means amount of work figured in terms of budgeted costs. Disbursements for capital construction are actual amounts disbursed. Distinctions must be made in the use of these terms.

Categories of capital construction investment sums

In order to study use of investment sums from various angles, the following classification of total investment funds has been made:

(1) Classification as to source of funds, distinguishing between state investment and investment provided by oneself.

State investment means investment that has been included in state capital construction plans and that has been budgeted for disbursement from state revenues. Investment provided by oneself applies to investment arranged for from local funds at all levels as well as investment put up by departments in charge, enterprises or institutions at all levels.

(2) Classification as to intended use, which is divided into productive construction and nonproductive construction.

Productive construction means construction used to produce goods or that directly serves production of goods. It includes industries, building industries, geological prospecting for resources, agriculture, transportation, posts and telecommunications, businesses and material supply. Nonproductive construction means construction used to satisfy people's material and cultural needs. It includes construction of housing, of cultural, education and public health institutions, and of urban public utilities and administrative organizations.

(3) Classification by structure, which is divided into investment for the building and equipping of projects, purchases of equipment, and other investment.

Building and equipping of projects includes the value of all kinds of construction, tunneling of mine shafts, and water conservancy projects, as well as the value of purchased or self-manufactured equipment, tools and utensils. Other investment includes investment not a part of the foregoing two kinds, such as construction unit management expenses, prospecting and design expenses and expenses for procurement of land.

(4) Classification according to nature of construction, which is divided into new construction projects, rebuilding or expansion projects, and rehabilitation projects.

New construction projects means projects built from the ground up or projects having a very small existing foundation, whose new value as fixed assets following further construction will be more than three times greater than the existing value of fixed assets. Rebuilding or expansion projects means use of existing enterprises or entreprenural units for the building of new workshops as well as to carry out a technical transformation of existing facilities in order to expand production capacity or increase the kinds of products. Rehabilitation projects means restoration to the previous scale of fixed assets that have been destroyed through natural disasters or warfare. If expansion is done in the course of rehabilitation, it is considered an expansion project.

(5) Classification according to scale of construction:

Capital construction projects are classified as being large, medium, or small, which is determined on the basis of project overall design capacity or total investment. Classification standards are based on "Classification Standards for Large, Medium and Small Construction Projects" promulgated by the state. In order better to carry out level-by-level management of capital construction and reflect accurately the scale of capital construction, the state five times revised "Classification Standards for Large, Medium and Small Construction Projects" in 1958, 1962, 1972, 1977 and 1979. For this reason, full comparison cannot be made of the numbers of large, medium and small projects at various historical periods.

(6) Classification by national economic sector. This is a determination made after a project has been built and gone into production that is based on the types of its main products or principal use to which the project is put, without consideration of to which management system it is subordinate. If a machinery plant or a school is built by the Ministry of Metallurgy, classification according to national economic sector will mean that they will be included with machinery industries and educational institutions.

19. Assets Newly Acquired Through Capital Construction. The term assets newly acquired through capital construction applies to the value of structures, equipment, tools and devices that meet standards for fixed assets that have been built and gone into production or have been turned over for use as a

result of investment in capital construction. They also include other investments in capital construction that should be made a part of fixed assets. The value of equipment, tools and devices purchased that do not meet standards for fixed assets that are included in the amount of investment made in capital construction, as well as expenses for the training of production personnel, moving expenses for construction organizations, expenses for afforestation or clearing of wasteland, investment in scrapped projects, plus other expenditures that have to be made are not figured in the value of newly acquired fixed assets.

The ratio between newly acquired fixed assets and the amount of investment is termed the fixed assets delivery and utilization rate.

20. Total Retail Sales of Social Commodities. Total retail sales of social commodities include consumer goods sold directly to urban and country residents and to social groups by various kinds of economic type businesses, food and beverage businesses, industries, and other trades, agricultural means of production sold to rural production teams and commune members, and retail sales by peasants directly to nonagricultural residents. Means of production sold to enterprises and institutions (including state-owned farms) in various sectors of the national economy are not a part of statistics on retail sales of social commodities.

Deduction of peasant direct retail sales to nonagricultural residents from the total retail sales of social commodities is termed the amount of retail sales of social commodities.

21. Overall Index of Various Prices. The overall index of various prices includes the overall index of retail prices, the overall index of staff member and worker cost of living prices, the overall index of agricultural and sideline product procurement prices, and the overall index of retail prices of rural industrial goods.

China has numerous kinds of commodity prices. In addition to state-owned business list prices and country fair trade prices, there are also negotiated prices (or agreed prices), and surplus procurement prices. Thus, in addition to calculating the various indices of list prices, one must also calculate overall indices of prices for goods sold at negotiated prices and in country fair trade, as well as include overall indices of agricultural and sideline products bought at list prices, negotiated prices and excess procurement prices. In figuring these overall indices, use of actual procurement at various prices and amount of money spent serves as a weight function to reach the aggregate.

(1) The retail list price index is figured by using a weighted arithmetic mean equation. Each year the weight number is readjusted on the basis of actual retail sales data. Over the years, both the market and commodities selected to figure indices have gradually increased. Today, more than 130 cities and more than 210 county seats throughout the country serve as grassroots reporting units. About 450 different commodities are selected for reporting in cities, and about 400 commodities are selected for reporting in

county seats. The price of representative standard goods of each kind is used in making calculations.

(2) Up until 1952, in figuring the list price index of staff member and worker cost of living, a fixed-quantity weighted-aggregate method (i.e., a total value method) was used. Between 1953 and 1956, a weighted arithmetic mean formula was used in calculations. After 1957, the urban retail price index and service price index were used to compile the staff member and worker cost of living price index. Currently, 500 selected commodities and services are used to figure the index.

(3) Figuring the agricultural and sideline procurement list price index entails use of a weighted reciprocal equation (i.e., a weighted-aggregate method based on actual money spent for procurement during the reporting period). Currently, commodities selected to figure the index are in 11 large categories and 25 small categories and include 260 different agricultural sideline and native products.

22. Total Wages. Total wages means the total amount of compensation paid to all staff members and workers in state-owned and in city and town collectively owned enterprises, institutions and managerial units within a certain period of time. It includes hourly wages and piecework wages (including premium wages), various bonuses and awards that are in the nature of wages, overtime wages and extra wages.

23. State-ownership System and Collective Onwership System. State-ownership system applies to an economic form in which the means of production are owned by the state. A collective ownership system applies to an economic form in which the means of production are collectively owned by workers. This includes farming, forestry, animal husbandry, sideline occupations and fishing industries run by rural people's communes, production brigades and production teams, and commune- and brigade-operated enterprises and entreprenural units, plus county, town- or street-operated collectively owned enterprises or entreprenural units.

State-owned system and collectively owned system figures included in data for the period 1949-1957 included joint public-private ventures, private enterprises, individual handicraft industries and other individually operated economies up until the time of the transformation to socialism.

24. Current-year Prices and Comparable Prices. Current-year prices means actual prices for various goods during the year. Calculations in terms of current-year prices means indices expressed in monetary terms such as gross social output value, gross industrial output value, national income, and investment in fixed assets, the total amount of which are figured in terms of actual prices for the current year. Figures calculated in terms of current-year prices are used to dovetail various indices of the national economy, for convenience in examining socioeconomic benefits, and for convenience in effecting overall balance between production and flow, production and distribution, production and consumption.

Indices figured in terms of current-year prices and expressed in monetary form cannot accurately reflect increases and decreases in amounts of goods when different years are compared. This is because they contain price differences from one year to another. Only after price differences have been eliminated is it possible to reflect economic development trends. Thus, when figuring speed of growth, comparable price figures are used in making calculations. Currently, China uses two comparable price calculation methods. One is calculating directly output multiplied by constant prices for a given year; the other is to use price indices to make conversions.

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CHINA'S ECONOMY IN 1982

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[Text] In April 1982, the 23d Session of the Standing Committee of the 5th NPC deliberated and passed the "Plans for the Economic and Social Development in 1982." It was decided that the major tasks of the economic and social development in 1982 would be to further implement the principle of readjusting, restructuring, consolidating and improving, to consolidate and develop the results of 1981 in stabilizing the economy, to continuously maintain a basic balance between financial revenue and expenditure and a basic stability in market prices, and to strive to raise the economic results, so that the speed of development of the national economy would be faster than that of 1981. Through the hard work and struggle of the people of all nationalities throughout the country, we have victoriously fulfilled the plans for 1982 and have realized the major tasks stipulated in the plans. Our national economy is developing ahead continuously, steadily and healthily.

I. We Have Overfulfilled the Planned Targets for Industrial and Agricultural Production.

The 1982 national economic plan stipulated that the gross value of industrial and agricultural output should increase 4 percent compared to that of 1981 and that we should strive to overfulfill the target in implementing the plan. Because the various localities and various departments had conscientiously implemented the various economic policies of the party and the various measures in speeding up the economic development, the gross value of industrial and agricultural output throughout the country amounted to 829.1 billion yuan, 8.7 percent above the preceding year. Of this, the gross value of agricultural output was 278.5 billion yuan, up 11 percent; and the gross value of industrial output was 550.6 billion yuan, up 7.7 percent.

In 1982, we scored a bumper harvest in agricultural production, and overfulfilled the plans for the major agricultural products, such as grain, cotton, oilbearing crops, sugar products and tea. We also set some records. While the sown area was reduced by 1.3 percent, the gross output of grain

was 706.8 billion jin, 56.8 billion jin over the preceding year, the highest increase in output since the nation's founding. On the basis of sharp increases in output for 2 consecutive years, cotton output again increased 12.63 million dan over the preceding year, registering at 71.98 million dan, and showing an average annual progressive increase of 17.7 percent in the last 3 years. The gross output of oilbearing crops was 236.36 million dan, 15.8 percent over the preceding year. The area of afforestation, the output of pork, beef and mutton and the output of aquatic products were 9.4 percent, 7.1 percent and 11.9 percent respectively over the preceding year. Industrial sideline production also developed very rapidly. The output value of enterprises run by production brigades was 30.4 billion yuan, 18 percent over the preceding year. The primary reason why a bumper harvest in agriculture was scored in 1982 was because the broad rural areas had conscientiously implemented the various economic policies of the party toward the rural areas, continued to implement and perfect the system of contracting responsibility in joint production, and further mobilized the enthusiasm of a great number of peasants. In addition, they had widely applied agricultural science and technology and enhanced their commitment in agriculture. The supply of agricultural means of production in 1982 was 16.8 percent over the preceding year, and the support-agriculture funds arranged by the state finances were up 9.8 percent. Another important factor for the bumper harvest in agriculture was the relatively good weather conditions in 1982.

An all round increase in industrial production was registered in 1982. The gross output value of light industry was 276.6 billion yuan, 5.7 percent over the preceding year. The output of such products as yarn, cloth, paper, sugar, television sets and lightbulbs was 5 to 10 percent over the preceding year. Bicycles, sewing machines, wristwatches and cameras were up 14 to 38 percent, while washing machines for household use almost doubled. The gross output value of heavy industry was 274 billion yuan, 9.9 percent over the preceding year. The reasons for the rapid rise in heavy industrial production were: 1. Because of the relatively rapid increase in energy production, the gross output of the preceding year. Primarily, coal output was up 7.1 percent over the preceding year, and provided more energy resources for heavy industrial production. 2. The expansion of the scale of investment in fixed assets and the increased demand for agricultural means of production by the rural areas promoted the growth of heavy industry, especially the machine-building and construction materials industries. 3. A portion of the materials in reserve was utilized. Preliminary statistics showed that 2.94 million tons of steel products in reserve and 2.58 million tons of pig iron in reserve throughout the country were reduced in 1982, thereby increasing the supply of raw materials for the engineering industry and others. Of course, the increase by 9.9 percent in heavy industrial production in 1982 was realized on the basis of the 1.4 percent increase in 1980 and the 4.7 percent decrease in 1981, and to a great extent embodied the nature of recovery. The communications and transportation departments also overfulfilled the transportation tasks for the entire year. The volume of railway freight turnover was 7.1 percent over the preceding year, while the volume of waterway cargo turnover was up 6.3 percent and the volume of cargo handled by the coastal harbors, 8.4 percent.

In 1982, the economic results of industry and communications were better than the preceding year. Within the budget, the output value of the state-run industrial enterprises was 6.3 percent over the preceding year, and the income from sales, calculated along the same lines, was up 6.2 percent. Production and sales generally maintained an equilibrium with very little new overstocking. Definite improvement was made in the consumption by industrial production and in the product quality. The reduction rate of the targets of raw materials and fuel consumption by the key enterprises went from the 36 percent of the preceding year to 45 percent. The product quality improvement rate went from 29 percent to 33 percent. The total cost of industrial comparable products also went down somewhat compared to the preceding year. The daily value of freight trains increased from 718,000 ton-kilometers to 720,000 ton-kilometers. The output per ton of an ocean liner increased from 2.16 ton-nautical miles to 2.25 ton-nautical miles.

II. We Have Continued To Effect a Turn for the Better in the State Financial and Credit and Loans Situations.

In 1982, the total state financial revenues were 112.4 billion yuan, which fulfilled 101.8 percent of the plan, 3.2 percent over the preceding year. The total financial expenditures were 115.3 billion yuan, which fulfilled 101.7 percent of the plan, 3.4 percent over the preceding year. We incurred a deficit of 2.9 billion yuan and continued to maintain a basic balance between revenue and expenditure.

The state revenues and expenditures in credit and loans were fine. The various types of savings increased over the preceding year and the amount of increase in loans decreased somewhat. The net amount of monetary circulation for the entire year was 4.27 billion yuan, 740 million yuan less than the preceding year. In recent years, 1982 was the year when the least currency was circulated.

Compared to the preceding year, there was an obvious turn for the better in 1982 in the balance between, revenue and expenditure in state finances and credit. This was primarily manifested in the following: 1. We have changed the situation of a consecutive drop over the past 3 years in domestic financial revenues (in 1979, there was a drop in revenue of 1.87 billion yuan; in 1980, 1.74 billion yuan; and in 1981, 2.58 billion yuan), and increased the revenues by 6.7 billion yuan over that of the preceding year. 2. We have changed the situation from one of realizing a basic balance between revenue and expenditure by sharp cuts in financial expenditures last year to one of realizing a basic balance between revenue and expenditure under the circumstance of increasing the necessary expenditures. In 1982, the domestic financial expenditures were 7.1 billion yuan over the preceding year. Of this, there was an increase of 2.2 billion yuan in expenditures for economic construction, such as capital construction appropriations, funds for enterprises in tapping potentials and carrying out transformation, support-agriculture expenses, expenses in the trial-manufacture of new products and expenses in geological prospecting; an increase of 2.6 billion yuan in expenditures for culture, education, public health work and science; and an increase of 1.9 billion yuan in expenditures for national defense and war preparations as well as administration.

There were slight increases in other items of expenditure also. 3. The amount of year-end monetary circulation on the market was 10.8 percent over the preceding year, which basically approached the margin of increase by 9.4 percent in the turnover from retail sales in society. This indicated that there was definite improvement in the condition of having too much money on the market.

That the state financial and credit situation in 1982 has continued to take a turn for the better is a comprehensive reflection of the greater results that have been scored in readjusting the national economy. It is also the result of the state's adoption of a series of measures to increase revenues, such as the rational readjustment of the production and sales prices of certain products, the strengthening of taxation work and the issuance of state treasury bonds, as well as of the expansion of savings by urban and rural residents, the strict control over the issuance of currency and the great effort in raising the efficiency in the use of funds.

III. The Urban and Rural Markets Are Prosperous and the People's Standard of Living Is Continually Being Improved.

In 1982, brisk buying and selling were seen in the urban and rural markets of our country. There was a relatively abundant supply of commodities. A fine situation that was rarely found in the last 30 years appeared. This was due, on the one hand, to the all-round bumper harvest in agriculture, the development of light and textile industries, and the relative abundance in the supply of commodities to the market; and, on the other hand, to the relatively rapid increase in the income of the urban and rural residents and the continual rise in the commodity purchasing power.

In 1982, the supply of retail commodities increased somewhat. The supply of retail commodities by the agricultural, light industrial, heavy industrial and food sectors, as well as the import of consumer products through foreign trade for the domestic market increased by 10.7 percent over the preceding year. Society's commodity purchasing power the same year increased by 9.1 percent over the preceding year. Thus, the increase in the supply of commodities was greater than the increase in the purchasing power, which changed the state of the several preceding years in which the purchasing power was greater than the supply of commodities. This further provided the material conditions for expanding the market capacity and increasing sales. The total value of retail sales of commodities for the entire year increased from the 235 billion yuan of the preceding year to 257 billion yuan, an increase of 9.4 percent. The characteristics of the development of the domestic market in 1982 were: (1) There was a rich array of food products, especially nonstaple food products, and there was an obvious rise in market supply and sales. The retail volume of food commodities was 8.9 percent over the preceding year. Both supply and sales of edible vegetable oil, meat, eggs and other foodstuffs increased over the preceding year. There was also an obvious turn for the better in the supply of vegetables to the cities. Statistics of the 35 large and medium-sized cities throughout the country showed that the total amount of supply of vegetables was 13 percent over the preceding year. Each person had an average of 0.89 jin of vegetables a day. (2) There was an abundant supply as well as a greater variety of

textile products and knit and cotton goods. The scope of the buyer's market was gradually expanding. The arrangement in order of importance and urgency of the supply and demand for industrial items by the commerical departments in September of 1982 showed that there was a balance between supply and demand and a greater supply over demand in 196 out of the 210 textile products and knit and cotton goods, which constituted 93.3 percent of the products mentioned. The situation in the supply of clothing commodities was the best since the nation's founding. (3) The commodities for daily use were on the rise, and the sales of durable consumer products were continuously growing by a wide margin. In 1982, the volume of retail sales of commodities for daily use was 9.9 percent over the preceding year, which was a faster growth compared to the 9.4 percent increase in the volume of retail sales of social commodities for the entire year. Of these commodities, the sales of bicycles, sewing machines, wristwatches, tape recorders, television sets, cameras, radios and electric fans were all up more than 17 percent over the preceding year. (4) The increase in the volume of retail sales of the agricultural means of production was relatively rapid. In 1982, the value of retail sales of the agricultural means of production was 11.8 percent over the preceding year, which greatly surpassed the 0.4 percent increase registered last year, and which was also faster than the 9.4 percent increase in the volume of retail sales of the social commodities. (5) Market prices were basically stable. In 1982, the retail prices of most of the commodities of the state-run commerce remained stable. The prices of wristwatches, television sets, polyester cotton cloth and chemical fiber cloth and polyaside fiber stocking were readjusted downward. Because the sales prices of tobacco and alcohol were raised since the fourth quarter of 1981, the retail prices of the state-run commerce were still 1.3 percent higher than the preceding year. The negotiated commodity prices of the state-run commerce were stable, and the level of negotiated prices only went up by 0.5 percent. The price level of fair trade went up by 3.5 percent. The general level of retail commodity prices went up 1.9 percent compared to the preceding year, the smallest margin of increase in recent years. Of this, the cities went up 2.1 percent and the rural areas, 1.7 percent.

On the basis of production development, the monetary income of the residents increased rather rapidly. This served as a factor for the expansion of commodity sales and for a thriving market in 1982, and also served as an important indication that the people's standard of living was further improved. In 1982, the total value of monetary income of the urban and rural residents was some 22 billion yuan over that of 1981, registering an increase of 10.7 percent. The increase of monetary income in 1982 was due to the following reasons: 1. The peasant's income increased rather rapidly. The peasants increased their income by some 12 billion yuan through sales of all kinds of agricultural sideline products and increased their income by 2.9 billion yuan through rendering labor service to society. A sample investigation on the income and expenditure of peasant families by the State Statistical Bureau showed that, the annual per capita net income of the peasants was 270 yuan, which was 47 yuan over the preceding year. 2. Through the expansion of employment and the readjustment of the wage scale of some workers and staff, the wages of the urban workers and staff increased. In 1982, the number of workers and staff throughout the country increased by 3.41 million people, giving a total number of 112.8 million

workers and staff. The wage bill to workers and staff was 88.2 billion yuan, 6.2 billion yuan over the preceding year. The average monetary wage scale of the workers and staff throughout the country was 798 yuan, 26 yuan or 3.4 percent over the preceding year. 3. There was also increase in monetary income for the urban residents from other sources, such as pensions and relief funds, educational loans and other sources of income which the workers and staff obtain from their working unit.

As the national economy developed steadily, the income of the residents increased and the market prices remained stable, the urban and rural people eagerly started savings deposits. By the end of 1982, the surplus of individual savings deposits of residents was 67.54 billion yuan, 15.2 billion yuan or 29 percent over the preceding year. Per capita savings deposits throughout the country went from 52 yuan in the preceding year to 66 yuan, an increase by 26.9 percent.

There was an increase in per capita floor space for the urban and rural residents. In 1982, the state invested in and completed the building of 90.2 million square meters of residential quarters. Together with the investment in renewal and renovation and the building of housing quarters by the urban units under the system of collective ownership, a total of 117.9 million square meters were completed. According to an investigation of the livelihood of the families of staff and workers, the per capita floor space went from 5.3 square meters of the preceding year to 5.6 square meters. There were roughly 600 million square meters of rural housing quarters. The per capita floor space went from 10.2 square meters of the preceding year to 10.7 square meters.

The people's cultural life and medical and public health conditions further improved. In 1982, the movies produced throughout the country were 6.7 percent over the preceding year, while all kinds of new movies released were up 8.4 percent. The volume of all kinds of journals and books published was up 5 percent. The value of sales of books for the entire year was 1.88 billion yuan, 10.6 percent over the preceding year, and the highest sales volume since the nation's founding. Public health work also developed. By the end of the year, there were 2,054,000 hospital beds throughout the country, 1.8 percent over the preceding year.

IV. The Major Proportional Relationships in the National Economy Have Basically Attained Harmony.

After 4 years of economic readjustment, the major proportional relationships in the national economy, which were in serious disharmony, have basically attained harmony. This is primarily manifested in the following aspects.

(1) The harmonious development between industrial production and agricultural production. Since the 3d Plenary Session of the 11th CPC Central Committee, the party Central Committee and the State Council have adopted a series of policies and measures to speed up agricultural development which have enabled agricultural production to score relatively fine results continuously. In

the 4 years from 1979 to 1982, the gross value of agricultural output was up 33.4 percent, with an average annual increase of 7.5 percent, which was much higher than the average annual progressive increase of 3.3 percent in the 26 years from 1953 to 1978. The proportion of the gross value of agricultural output in the gross value of industrial and agricultural output went from 27.8 percent in 1978 to 33.6 percent in 1982. The state in which agricultural production lagged behind industry and the entire national economy has improved. This has effectively promoted the development of industrial production and the increase in commodity supply to the market.

(2) The relationship between light industry and heavy industry has obviously improved. For a long time, the problem of overemphasis of heavy industry which crowded out light industry existed in the development of the national economy. This led to a shortage in the supply of consumer goods for daily use. After having conscientiously implemented the principle of readjusting the economy in 1979, light industrial production has developed rather rapidly. From 1979 to 1981, the average annual progressive increase was 14 percent, which far surpassed the average annual progressive increase of 7.1 percent for the entire industry. The supply of many commodities which had all along been in demand continued to increase. The masses were even able to make choices regarding some commodities. The gross value of light industrial output of 1982 was 5.7 percent over that of the preceding year, and was lower than the year before last. This was primarily because the trend of change in light of the demand of the market had cut down the output of such commodities as chemical fibers, transistor radios, rolled tobacco and gunny sacks, which were unmarketable and had a large amount in reserve. The production of food products and industrial goods for daily use still increased by around 9 percent compared to the preceding year. At the same time, in light of the needs of the market, the light and textile industrial departments vigorously readjusted the structure of production and worked hard to develop new products, raised the ability of the light and textile industries in increasing color, design and variety and in raising product quality, and created favorable conditions for further meeting the needs of the improvement of the standard of living of the people in the urban and rural areas and of the expansion of foreign trade and export. After several years of economic readjustment, the proportion of the gross value of light industrial output in the gross value of industrial output went from 43.1 percent in 1978 to 50.2 percent in 1982, while the proportion of the gross value of heavy industrial output correspondingly dropped from 56.9 percent to 49.8 percent. In view of the need to meet the growth in consumption and the expansion of accumulation, in the period in the near future, it would still be appropriate to generally maintain the proportion of half and half between light industry and heavy industry.

(3) The relationship between consumption and accumulation became more reasonable. Prior to 1978, the rate of accumulation had been above 30 percent for many consecutive years. This led to a serious disharmony in the major proportional relationships in the national economy. After having implemented the economic readjustment, we cut down the scale of capital construction and lowered the proportion of the investment in capital construction in the national income from 16.6 percent in 1978 to 13.1 percent

in 1982. The rate of accumulation correspondingly dropped from 36.5 percent to 29 percent. At the same time, the structure of the accumulated fund became more reasonable. In the total value of accumulation, the proportion of accumulation of a subsistence nature, such as urban and rural housing, urban public works, and cultural, education, and public health facilities, increased obviously. The proportion of the total value of consumption and accumulation of a subsistence nature in the use value of the national income went from around 70 percent in 1978 to around 80 percent, which was higher than the average level for the 26 years from 1953 to 1978.

(4) Energy production began to go up. The gross output of a primary energy production throughout the country in 1982 amounted to 668 million tons of standard coal, 5.6 percent over the preceding year. Coal production went from a drop and standstill in production in the last 2 years to an increase in production. This was primary because, in recent years, the state had adopted a series of measures to strengthen the coal industry, such as raising the criteria of drawing funds for the renewal and transformation of the coal mines under centralized distribution, improving the welfare treatment of the mining staff and workers, and actively supporting the development of local coal mines. At the same time, the broad masses of staff and workers of the coal industrial department made great effort to implement the policy of readjustment, and enabled the mines under centralized distribution that were in a state of serious disharmony in the relationship between tunneling and extraction to gradually return to normal. All this has created favorable conditions for the increase in coal production.

(5) The relationship between economic construction on the one hand and scientific and technological development and the training of skilled personnel on the other has improved greatly. Since the 3d Plenary Session of the 11th CPC Central Committee, while readjusting the speed and proportional relationships of the economic development, the state also readjusted the relationship between economic construction on the one hand and the development of science, education, culture and public health work on the other. In spite of the relative difficulty in the state of finances, we still increased by a wide margin the allocations for science, education, culture and public health work as well as the investment in capital construction. In 1982, the allocations for culture, education, public health work and science arranged by the state finances were 74 percent over that of 1978, and their proportion in the total financial expenditures of the state went from 10.1 percent in 1978 to 17.1 percent. The proportion of the investment in capital construction by the cultural, education and public health departments in the gross investment in capital construction also went from 3.2 percent in 1978 to 7.8 percent in 1982; while the proportion of investment in capital construction in scientific research went from 1.5 percent to over 2 percent. Thus, culture, education, public health work and science developed very rapidly. The average full-time institutions of higher learning developed from 598 schools in 1978 to 715 schools, and the number of students increased from 856,000 to 1,154,000 people. The teaching facilities of the schools also increased extensively. The shortage of secondary and primary schools began to ease up, and the number of two-shift schools decreased from some 100,000 to around 30,000. A number of centers of activities in exchanging

science and technology and in carrying out scientific consultation as well as computer centers and testing centers were set up. The level of equipment of the key scientific research units was also raised.

V. We Continuously, Actively and Steadily Carried Out the Reform of the Economic System of Management.

The reform of the economic system of management was an important guarantee in raising economic results in an all-round manner and in realizing the socialist modernization. In 1982, we continued to carry out the reform of the economic system of management under leadership and in a step by step fashion, and made new progress accordingly.

In agriculture, the system of contracting responsibility in joint production was popularized in the rural areas throughout the country. The form of economic contracting with the family as a unit had become the major form of the system of responsibility in agricultural production. This system of responsibility was, first of all, suitable to our country's present level of agricultural productive forces and level of economic management. Secondly, the combination of unified management and decentralized management not only could bring the superiority of the collective into play, but could also mobilize the enthusiasm of the peasants to the greatest extent. Thirdly, this was convenient for the utilization of scattered funds and miscellaneous labor forces, with low consumption in production, little investment and high results. Thus, after the implementation of contracting in joint production, the results in production rose obviously, and the peasants' income increased obviously. In continuously developing and perfecting the system of contracting responsibility in joint production, a large number of laborers who had technical specialties and management ability emerged in large numbers to carry out contracting in specializations, and formed specialized households and priority households. The preliminary statistics of eight provinces showed that the number of specialized households already constituted around 7 percent of the total number of peasant households. In light of the expansion of production and the raising of the level of management, many specialized households began to ask for cooperation and alliance from different angles. In accordance with the principle of doing whatever is favorable to production and of voluntary participation and mutual benefit, various forms of economic alliance were set up. This was a new development in contracting in joint production, and was also a new socialist cooperative economy.

In industry, on the basis of the implementation of the expansion of the decisionmaking power of the enterprises in the last few years, in 1982, various forms of economic system of responsibility, with profit retention, profit-contract and substitution of tax payment for profit delivery as the major contents, appeared. Practice over the last few years proved that, in light of the demand for the correct handling of the relations in distribution between the state and the enterprise and for the establishment and perfection of the economic system of responsibility, the implementation of the method of substituting tax payment for profit delivery not only could clarify the economic responsibilities and duties of the enterprise, but could also guarantee a steady source of revenue for the state. This was the direction

of the reform. After the establishment of the National Shipping Industrial Company and Automobile Industrial Company, we also established such national industrial companies as the National Petrochemical Industrial Company and the Metallurgical Industrial Company. Local specialized companies were also set up in the various localities. With regard to the distribution, such as "piece rate wage," "floating wage" and "floating promotion," appeared. These directly linked up the interests of the laborers with the production and business results of the enterprise and the collective, and to varying degrees changed the "same big pot" mentality and egalitarianism inside the enterprise.

In commerce, some progress was made in the gradual establishment of the various kinds of economic components, the multiple channels of circulation, the diversified economic mode and the system of fewer links in commodity circulation. First, we launched pilot points at which the rural supply and marketing cooperatives restored their cooperative commercial characteristics, which restored the mass character, democratic character and flexibility of the supply and marketing cooperative in the activities of business management. The situation of the pilot points, showed that, the restoration of the cooperative commercial characteristics of the supply and marketing cooperative was favorable to developing joint agricultural-commercial operations, to developing the diversified economy and to expanding the exchange of agricultural sideline, local and special products. Second, in order to extend industrial products down to the rural areas, we further opened up the channels of circulation, and changed the former system of division of labor according to commodities and open circulation between the urban and rural areas. This changed the situation in which the cities were separated from the rural areas in the wholesale and retail of industrial products. Thus, a new situation appeared on a general scale in the urban and rural markets in which the state-run, collective and individual commerce coexist and in which tradesmen and itinerant merchants carried out business at the same time. Third, the basic-level retail commercial units and service trades trial-implemented the system of responsibility in economic contracting. This strengthened the sense of responsibility of the workers and staff as their own masters, and preliminarily changed the business style and raised the service quality.

In the structure of economic organization, in order to shatter the separation of central from local authorities and give play to the role of the key cities and the economic superiority of the localities, the party Central Committee and the State Council decided to establish the Chang Jiang delta economic region with Shanghai as the center and the industrial base of energy resources and heavy chemicals with Shanxi as the center. Within the scope of the economic region, we implemented unified planning and developed regional economic alliance. This was of important significance to accelerating the speed of economic development and to raising the socioeconomic results in an all-round manner.

VI. Some Problems Which We Should Pay Attention to, Study and Resolve in the Development of the National Economy.

In 1982, we scored new achievements in the readjustment, reform and rectification of our country's national economy. However, because we still failed to

solve the problem of irrationality in our country's present economic structure, because our level of economic management was still relatively low, and because we still did not totally eradicate the "Leftist" ideological influence, some problems which are in urgent need of being solved have also appeared in the development of the national economy. These problems are primarily as follows:

(1) The scale of investment in fixed assets went too much beyond the state plan. At the beginning of 1982, the plan of investment in fixed assets was 63 billion yuan. In the course of implementing the plan, in light of the practical needs of the economic development and the ability of the state financial and material resources, the plan was readjusted to 69.5 billion yuan. The actual results of the implementation, however, amounted to 84.5 billion yuan, 15 billion yuan over the plan. Of this, the plan for investment in capital construction at the beginning of the year was 38 billion yuan, which was readjusted to 44.5 billion yuan, and which amounted to 55.5 billion yuan as a result, 11 billion yuan over the plan. Since the nation's founding, this was the fourth time, the other 3 years being 1958, 1970 and 1978, in which the investment in capital construction was more than 10 billion yuan over the preceding year. This was primarily because the localities, departments and enterprises went out of control in self-raising investments and because the various capital construction loans increased too dramatically. This led to the following problems: A shortage of supply in steel products, timber and cement, the continuous lengthening of the capital construction front and a drop in the results of investment. A phenomenon in which the key projects were crowded out and in which the projects outside the plan were crowded out by the projects inside the plan became more and more serious. Many redundant projects which appeared necessary locally but were unnecessary from the standpoint of the entire country were launched. In addition, much of the investment in the renewal and transformation of facilities was not truly used in the renewal and technological transformation of equipment but was used in expanding projects and building new projects.

(2) Because heavy industry picked up rather rapidly, it put additional pressure on energy resources, raw materials, and communications and transportation. Although the growth in energy production for 1982 was faster than the preceding year, and the capacity of communications and transportation was also increased, yet, because heavy industry picked up too rapidly a shortage in energy and communications and transportation appeared. The problem of inadequacy in power supply was particularly prominent. The situation of quota limit of power supply and low cycle operation of the three large power networks of Northeast China, East China and Beijing-Tianjin-Tangshan picked up again. At the same time, communications and transportation were in extreme shortage. By the end of 1982, there was stockpiling of coal that should have been loaded and transported from the coal mines under centralized distribution. Some of the timber of the northeast region and the phosphate rocks of the Yunnan-Guizhou region failed to be transported out. In order to guarantee the allocation and transportation of coal, some coal-exporting provinces had to crowd out the transportation of other goods and materials.

(3) Because of the failure to emphasize the variety and quality of the light and textile industrial products, some products were overstocked and unmarketable. By the end of 1982, in the total value of commercial reserves at home, the unmarketable commodities increased 20.7 percent over that of the end of 1981. The analysis by the commercial departments on the reserve of the 250 major industrial products for daily use showed that 88 of them had too much in stock due to supply over demand, constituting 35 percent of the total number.

(4) The economic results were still far from ideal. In 1982, although the economic results showed some progress, yet, due to the tendency of some localities in pursuing the value of output and speed in a one-sided manner, we failed to totally implement the measures of raising economic results. Thus, our economic results were still not good enough. The plan for lowering the cost of industrial comparable products was 2 to 3 percent. In reality, it was lowered by less than 1 percent. The average profits and taxes realized in every 100 yuan of value of output by the state-run independent accounting industrial enterprises went from 25.5 yuan of the preceding year down to 24.8 yuan. The target of material consumption of 99 major per-unit products and the target of quality of 67 major products were 33.3 percent and 22.4 percent respectively, showing regression instead of progression. Because the capital construction front was lengthened, the forces were dispersed and the rate of delivery of fixed assets was lowered from 86.6 percent of the preceding year to 74.4 percent.

The above-described situations showed that, in order to enable our country's national economy to develop ahead continuously and steadily and to practically and realistically shift the entire economic work onto the path of taking the raising of economic results as the key, in 1983, we must strictly control the scale of investment in fixed assets and guarantee the completion of the key construction projects according to the requirements stipulated by the plan. We must strengthen the planned management of the consumption funds and gradually improve the people's standard of living on the basis of preserving in production development and raising labor productivity. We must continue to do a good job of the readjustment and rectification of the existing enterpises, promote the technological progress in social production, and bring the potentials of the existing enterprises into full play. We must actively and safely carry out the reform of the economic system of management and must attain the goal of "letting the state have the largest share, the enterprise have the next largest share and the individual have the smallest share" in the relations in distribution.

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CHINA'S AGRICULTURE IN 1982

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[Article by Yu Guoyao [0151 0948 5069]]

[Text] After 3 consecutive years of all-round growth in agricultural production, China had a fourth bumper harvest in 1982. Output of major agricultural products such as grain, cotton, oilbearing crops, and sugar overfulfilled plan norms for the highest levels since the founding of the nation. This shows further new development in the ushering in of a new situation in agricultural production, which is fairly remarkable in several regards as follows:

I. All-round Increase in Agricultural Output

The gross output value of agriculture for 1982 was 278.5 billion yuan, up 11 percent from the previous year in great overfulfillment of a planned 4 percent increase. After deducting the 30.4 billion yuan output value of industries operated by rural production brigades and production teams, the gross output value of agriculture was 248.1 billion yuan, up 11.2 percent from 1981. In addition to an 8.5 percent growth in forestry, a more than 10 percent growth took place in the growing of farm crops, in animal husbandry, in the fishing industry and in sideline occupations, respectively. A 353.43 million ton gross output of grain broke the 700 billion jin mark for the first time for an 8.7 percent increase over 1981 versus the all-time high increase of 6.4 percent in 1979. Gross output of cotton was 3,598,000 tons, 21.3 percent more than in 1981 in virtual achievement 3 years ahead of schedule of the 3.6 million ton norm set by the Sixth 5-Year Plan. A gross output of 11,817,000 tons of oilbearing crops marked a 15.8 percent increase over 1981, exceeding 3 years ahead of schedule the 10.5 million ton norm called for in the Sixth 5-Year Plan. Among grain and oilbearing crops, outputs of soybeans and sesame seeds were less than during 1981 in consequence of disasters in major growing areas. The area sown to jute and ambari hemp was curtailed as a result of slack sales and accumulations of inventories, so outputs were less than in 1981. Gross output of sugar was 43,594,000 tons, 21 percent more than in 1981. This included 36,882,000 tons of sugarcane, up 24.3 percent over 1981, and a gross output of 6,712,000 tons of sugarbeets, up 5.5 percent over 1981. Gross output of silkworm cocoons was 314,000 tons, 1 percent more than in 1981. Gross output of tea was 397,000 tons, 16 percent more than in 1981.

A look at the foregoing figures shows a considerable increase in grain and cash crops. Even while the increase in grain crops remained steady, cash crops developed fairly rapidly, with cotton, oilbearing crops and sugar crops continuing to maintain the impetus toward considerable growth of recent years.

II. Pronounced Changes in the Production Situation in Some Intermediate- and Low-Yield Areas, Some Areas Becoming New Agricultural Commodity Production Bases for the Country

Two-thirds of China's total cultivated land area produces mediocre and low yields, various categories of low-yield fields covering a 500 million mu area from which yields average only 100 to 200 jin per mu. Recently, the country has liberalized policies, has readjusted agricultural crop patterns, has provided material and technical assistance, and has increased investment. This has strengthened the buildup of these areas, with the result that vast changes have taken place in them. Places in which fairly marked changes occurred during 1982 included Heze, Liaocheng, Dezhou and Huimin Prefectures in Shandong, Chuxian Prefecture in Anhui, Xuzhou and Huaiyin Prefectures in Jiangsu, Zhoukou Prefecture in Henan, Heilonggang Prefecture in Hebei and Yanbei Prefecture in Shanxi, Zhanjiang and Shaoguan Prefectures in Guangdong, and Mianyang Prefecture in Sichuan. The size of changes in some was greater than that of advanced areas. Statistics on the development of grain production in several intermediate- and low-yield areas for 1982 versus 1978 showed a 90.5 percent increase in Dezhou Prefecture, an 82.6 percent increase in Chuxian Prefecture in Anhui Province, a 45.5 percent increase in Xuzhou Prefecture in Jiangsu, a 58.8 percent increase in Huaiyin Prefecture, a 60 percent increase in Zhoukou Prefecture in Henan, and a 38.9 percent increase in Nanyang Prefecture. During 1982, paddy rice yields from a 4.8 million mu area of Mianyang Prefecture in Sichuan Province rose from 500 to 900 jin per mu, exceeding yields in Wenjiang Prefecture to make Mianyang the prefecture in Sichuan Province with the highest yields per unit of area. In Zhongjiang, Sanhe, Shehong, Pengqi and Yanting Counties in this prefecture, yields were greater than 1,000 jin per mu. Xuzhou Prefecture in Jiangsu Province vaulted from a backward production area to a position as a new commodity grain base in Jiangsu. One pronounced feature of this year's bumper agricultural harvest in Jiangxi Province was the use of large-scale contracting of sole responsibility for production in order to tap the production potential of intermediate and low-yield areas. During 1982, summer grain production increased tremendously in Henan's four intermediate- and low-yield prefectures of Nanyang, Zhoukou, Zhumadian and Xinyang, with the result that a new situation arose in this province in which grain production was "greater in summer than fall." Moreover, summer grain output from these four prefectures amounted to 44 percent of the province's total summer grain output.

A look at the development of agricultural production in China shows that the changes in these places have really fired people with enthusiasm. They show that China's agricultural production potential is very great, and enable us the better to set the future course of our main attack on agricultural production.

III. Considerable Development of Marketable Agricultural Products. Specialized Households in Rural Areas Have Played a Major Role in the Development of Commodity Production. Rural Villages Throughout the Country Are in Process of a Transformation From Economies of Self-sufficiency or Semiself-sufficiency to Fairly Large-scale Commodity Economies.

The all-round growth in agriculture during 1982 has markedly increased output of marketable agricultural products. Statistics show a total of 85.56 billion yuan worth of agricultural and sideline products as having been procured by state-owned businesses in 1982. This was 11.9 percent more than in 1981. After allowing for the rise in prices, the actual increase was 9.5 percent. Quantities purchased of major agricultural and sideline products increased over 1981, with the purchase of 72,085,000 tons of grain, up 14 percent; 3,413,000 tons of cotton, up 18.9 percent; 2.93 million tons of edible vegetable oil, up 10.4 percent; a 3.7 percent increase in pork, a 5.3 percent increase in fresh eggs, a 16.2 percent increase in aquatic products, a 40.8 percent increase in flue-cured tobacco, and a 10.5 percent increase in sugar. Except for the importation of some grain for use in regulating the market, China is self-sufficient in fats and oils with some surplus, self-sufficient in cotton for domestic use, and can be self-sufficient in sugar. This has further changed the former situation in which grain, cotton, oil and sugar had to be imported for a time.

The year 1982 saw further development of rural specialized households and key households. In all jurisdictions, specialized households and key households numbered about 10 percent of total peasant households. Inasmuch as these specialized households have been adept at farming and have taken to the use of advanced techniques and equipment where conditions permit, they have produced labor productivity rates that are from several times to more than 10 times higher than elsewhere. Some households have been able to provide the state with 10,000 jin of meat, 1 ton of eggs, and 1,000 chickens, and have earned incomes of up to 10,000 yuan a year to become "three-high households" with high labor productivity rates, high commodity rates and high cash income. This has advanced development of rural commodity production.

Generally speaking, the ability of agricultural production to score such fine results during 1982 has resulted from the resolute implementation everywhere in the country of a series of programs and policies since the 3d Plenary Session of the 11th Party Central Committee, and the purging of the influence of "leftist" ideology for a further emancipation of thinking, and an extremely great arousal of peasant enthusiasm for production, which has advanced development of agricultural productivity. This contains the following several common ingredients.

1. Greater peasant confidence in production responsibility system policies, greater attention to production, and full confidence in building modern agriculture.

During 1982, all jurisdictions became closely involved in implementation of the "Summary of Minutes of the National Rural Work Conference," which the CPC Central Committee had approved and forwarded. This was fairly effective in

allaying peasant apprehensions about possible numerous policy changes. Once the 12th CPC Congress further affirmed various policies relating to responsibility systems, the peasants realized the continuity and stability of party policies. Their minds were more at ease and their enthusiasm for development of production was heightened. During 1982 various forms of responsibility systems existed in China, but more than 92 percent of production teams practiced contract systems linked to production. Among the various kinds of contract responsibility systems linked to production, 78.7 percent of all production teams instituted family forms of contract systems linked to production, largely the contracting of sole responsibility for task completion to individual households. The contracting of sole responsibility for task completion to individual households is a form of operation that links the superiority of a collective economy to peasant enthusiasm for production and doing business. It unites centralized operations and decentralized operations, and closely links the labor of laborers to production results. Benefits are most direct, responsibilities are clearest and methods are simplest. It is the form most desired by the peasants. Consequently, it has demonstrated an extremely great role in agricultural production.

Numerous places suffered drought and waterlogging disasters during 1982. In calamity-stricken areas, numerous moving examples of fighting calamities to harvest a bumper crop occurred. Jiangxi Province had a serious flood disaster, yet grain output increased by more than 2 billion jin over 1981. During the period of crop growth in Jilin Province, no soaking rains fell for between 70 and 80 days; nevertheless, output increased over 1981 despite the serious drought.

Practice during 1982 has demonstrated that the family contracting form of production responsibility system has not only brought about a rapid change in the backward situation of out-of-the-way poverty-stricken places, but has also brought about substantial growth in existing high-output areas. Examples include Suzhou Prefecture in Jiangsu Province, which is one of the advanced prefectures in the country where grain yields fluctuated without moving forward during the past several years. In 1982, after the entire prefecture instituted family contract responsibility systems, grain production began a fairly substantial climb, with the prefecture producing 1.6 billion jin more than in 1981.

2. Adaptation of general methods to the local situation in the growing of farm crops, and increasing rationalization of the internal structure and patterns of agriculture boosted economic effectiveness.

During 1982, all jurisdictions continued to carry out the principles of adapting the growing of crops to local areas. After having succeeded with the readjustment of agricultural crop patterns during the past several years, they devoted further attention to readjustment of the internal structure and patterns of agriculture. While insuring steady growth in grain output, they achieved fairly equitable all-around development of cash crops, of the animal husbandry and fishing industries, and of sideline occupations. Comparison of 1982 with 1978 shows 100 million mu less as having been sown to grain. But as a result of the increase in yields per unit of area from 313 to 451 jin per mu,

gross output was vastly greater than in 1978. A look at the situation in numerous areas shows that reduction of a portion of the grain-growing area makes sense. If cultivated land suited to the growing of cash crops is ill-advisedly planted to grain crops, once this nonsensical way of planting has been readjusted, not only do higher grain yields per unit of area result, but cash crops also see substantial development. Cotton-growing areas also readjusted crop patterns. After southern cottonfields suitable for the growing of paddy rice were cut back so that rice could be grown in them, the growing of cotton was increased in northern saline-alkaline areas. As a result, the ratio of cotton-growing areas increased in the north, and this helped make the national pattern of cotton growing more rational. During 1977, Shandong Province's gross output of cotton was 2.97 million dan. As a result of vigorous development of cotton on alkaline-saline land and elsewhere in recent years, gross output in 1982 was 19 million dan or 5.4 times the 1977 figure and Shandong has become the country's major commodity cotton-producing province. After Shandong's four northwestern prefectures of Liaocheng, Heze, Dezhou and Huiming readjusted the internal structure of agriculture, a heartening situation of bumper harvests of both grain and cotton resulted. Liaocheng and Heze Prefectures have historically been old cotton-growing areas, but as a result of past one-sided emphasis on grain production alone, attention was given grain at the expense of cotton. Grain production did not really rise, yet neither did advantages from growing cotton come into play. A vicious cycle resulted that impoverished collectives and made life hard for commune members. Per capita distributions were only about 40 yuan annually, and cash income was less than 5 yuan. Between 1959 and 1978, Liaocheng Prefecture ate a total of 2.58 billion jin of grain purchased by the state monopoly, and Heze Prefecture ate a total of 2.55 billion jin of such grain. After gradual readjustment over the past several years, by 1982 the cottonfield area of Liaocheng Prefecture increased from 1.8 million in 1978 to 4 million mu and gross output rose from 740,000 dan to 4.7 million dan. The grainfield area was cut back from 5.16 million mu to 3 million mu, and gross output grew from 2.54 billion jin to 2.55 billion jin. During the past 45 years, Heze Prefecture's grainfield area has been reduced by 1.2 million mu, yet grain output in 1982 was 200 million jin higher than in 1978. Its cottonfield area increased to 1.94 million mu in 1982, and cotton output was 3.45 million dan, 2.92 million dan more than in 1978. The changes in production in these two areas shows a dialectically interdependent and mutually advancing relationship to exist between grain and cotton production. Not only did no decrease in grain output occur as cotton production increased, but rather grain output increased as well. This was because development of cotton provided a source of funds for development of grain production. Cotton yields were 113 jin per mu in Liaocheng Prefecture and 101 jin per mu in Heze, each mu of cotton providing earnings of about 250 yuan. In 1982, average per capita annual earnings reached 267 yuan in Liaocheng Prefecture and 150 yuan in Heze Prefecture (not including income from family sideline occupations). Once peasant income increased, it became possible to buy additional farm machines and implements, chemical fertilizer, pesticides and such means of production. Use of fertilizer in Liaocheng Prefecture rose from 61 jin per mu in 1978 to 115 jin per mu in 1982. In Heze Prefecture, wheat received between 70 and 80 jin per mu of phosphate fertilizer, and between 50 and 60 jin per mu of nitrogenous fertilizer at a cost of about 30 yuan. Once cotton growing had developed,

quantities of cottonseed cake fertilizer increased markedly. This was extremely beneficial for grain production. This district fertilizes its wheat heavily 50 to 60 jin or even more than 100 jin per mu. In addition, the cotton plants were used as fuel, enabling return to the fields of large amounts of grain stems for marked increase in soil fertility. In 1982, Liaocheng Prefecture's grain yields rose to 868 jin per mu versus 492 in 1978, and Heze Prefecture's yields rose to 500 versus 418 jin.

In consequence of the 1982 reversal in some counties in every province of the past tendency of sole emphasis on grain crops, a heartening situation developed throughout the country. Take Wei County in Hebei Province, which had been renowned historically as a "sea of cotton in southern Hebei," for example. This province's soil, climate, sunshine and quantity of precipitation all favor the growing of cotton and peanuts; however, the growing of cotton was simply held down and the growing of grain encouraged in the past. As a result, cotton output fell without any rise in grain output either. Following the 3d Plenary Session of the 11th Party Central Committee, this county proceeded from reality to readjust its crop patterns. In 1982, the county's cotton field area increased to 330,000 mu versus the 200,000 mu of 1977, and the peanut-growing area rose from 20,000 mu to 50,000 mu while the area planted to grain declined from 710,000 mu to 560,000 mu. In 1982, gross output of cotton reached more than 27 million jin or 10 times the gross output of 1979; gross output of peanuts was 12 million jin, 9 times the 1979 amount; and despite the reduction in grain acreage, yields per unit of area rose, and gross output reached 230 million jin, 50 million jin more than in 1981 for an all-time high. Elsewhere in the country, changes similar to those of Wei County also occurred.

3. Among the peasants, "study of science and use of science" reached new intensity, and the role of agricultural science and technology in advancing agricultural production became increasingly marked.

Institution everywhere of production responsibility systems not only caused a major readjustment of production relationships, but also gave impetus to an expansion of peasant study and use of science. After a 2-year upsurge in rural village study of science and use of science, quite a few counties and communes established stations for the promotion of farming techniques, farm science stations, veterinary stations, and various kinds of consulting and service organizations. Furthermore, through establishment of scientific and technical households and of model households, plus institution of technical responsibility systems, a grassroots network for the spread of techniques was formed. This advanced the spread and application of scientific and technical knowledge of farming among the peasants. By 1982, the area sown to hybrid rice had already grown to more than 84 million mu, or 17 percent of the area sown to rice throughout the country, producing yields averaging 782 jin per mu and a gross output of 65.9 billion jin of rice. Thirteen provinces, municipalities, and regions of south China grew 82.71 million mu of hybrid rice versus 6.97 million mu in 1981 for a gross output of 64.3 billion jin, up 11 billion jin. The increased production of hybrid rice accounted for 31 percent of the province's total increase in grain production of 35 billion jin, and accounted for 44 percent of the 25.3 billion jin increase in paddy output. This was the year of greatest increase in output since promotion of hybrid

rice began. As a result of the rapid rise in grain output resulting from the growing of hybrid rice over a wide area, some low-yield areas even managed to catch up with high-yield areas. In Chenzhou, Lingling and Hengyang Prefectures in Hunan Province, yield of double-crop late rice averaged 359 jin per mu in 1976, 111 jin less than from the three prefectures around Dongting Hu in northern Hunan. In 1982, however, thanks to the growing of hybrid rice on more than 80 percent of area, yields climbed to 589 jin per mu, 57 jin more than in northern Hunan. During 1982, notoriously low-yield Shaoguan Prefecture in Guangdong Province planted 61 percent of the total area to hybrid rice for yields averaging 592 jin per mu, 26 jin more than from high-yield Foshan Prefecture in the same province. Similar examples also occurred in Zhejiang, Jiangsu and Fujian Provinces. The marked rise in grain yields per unit of area occurred as a result of making the most of the advantages of hybrid rice for increased yields. This provided favorable conditions for readjustment of crop patterns. In addition to planting hybrid rice, superior strains of other crops were also planted such as Lumian No 1 and "Xushu 18" cotton, "Tiefeng No 18" soybeans, "superior Zijiao 330 corn," and "Yuanwu 02" inbred line corn. In addition, plastic mulch was used and promoted in production, with the result that peasants realized more clearly the role of science and technology. The need for "superior varieties of cotton and scientific care" have become principles that the broad masses of peasants understand. Formerly, only production team leaders and technical personnel at farm science stations farmed their fields scientifically. Today, as a result of the institution of contracting with households linked to output, the size of harvests are linked directly to the well-being of peasants individually. As a result, every household studies and applies scientific farming as the most important action to increase yields, increase income and become rich through labor. Numerous places have reported new advances during 1982 in techniques that formerly spread only very slowly or were impossible to promote, such as replacement of varieties, growing of seedlings in large covered sheds, fertilizing in water, poking holes to apply fertilizer, widespread sowing and close planting, equidistant close planting, use of pesticides, using machines to the full, etc. Use of plastic mulch spread most rapidly during 1982. This new agricultural growing technique had been first used experimentally in 1979 on a 660 mu vegetable growing area. By 1980, it was being used experimentally on cotton, peanuts and paddy rice, and by 1981 its use had spread to a 220,000-mu area. In 1982, it spread even more rapidly to a 1.77 million-mu area. This included use of plastic mulch on 290,000 mu of peanuts, 255,000 mu more than in 1981. In some areas, use of plastic mulch alone for the growing of cotton, peanuts and paddy rice, increased yields by between 30 and 40 percent. Each mu of land produced between 30 and 40 jin more of ginned cotton, between 100 and 200 jin more of peanuts, and between 150 and 200 jin more of paddy rice. A large body of facts has demonstrated that promotion of the result of scientific research and advanced farming techniques plays a remarkable role in increasing tremendously the output of agricultural products and increasing their quality.

4. Increased state support for agriculture

During 1982, the state provided fairly good conditions for all-around increases in agricultural output through the use of pertinent economic policies as well as by providing materials, funds, loans and technical guidance. The supply of

farm machines, chemical fertilizer and pesticides increased over 1981. In particular, despite the current national financial difficulties, pursuit of a policy of "no basic change" in the tremendous increases in prices paid for agricultural and sideline products first instituted in 1979 has protected the peasants' economic interests, and has helped stimulate peasant enthusiasm for production. In addition, the capital construction and equipping of agriculture that has gone on since the founding of New China played a major role in the struggle against natural calamities to harvest a bumper crop in 1982.

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CHINA'S INDUSTRY IN 1982

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[Text] In 1982, in the course of continuously implementing the principle of readjusting, restructuring, consolidating and improving, our country's industrial production grew steadily. The gross value of industrial output throughout the country was 550.6 billion yuan, 7.7 percent over the preceding year. As regards the output of 100 major products, 91 of them fulfilled or overfulfilled the plan for the entire year.

We Have Done a Better Job in Fulfilling the State Plans for Energy Production and Energy Saving

Energy is an important factor restricting our country's economic development and a major weak link in industrial production. Since the 3d Plenary Session of the 11th CPC Central Committee, in organizing industrial production and construction, we have all along emphasized the energy issue as a prominent contradiction, and have adopted the following measures:

1. We Increased the State Financial Subsidy. Since the 3d Plenary Session of the 11th CPC Central Committee, the state revenue increased the funds to be used in energy production and energy saving. Of these funds, the maintenance cost in coal production, subsidies for coal to be transported out, expenses in measures involving the stable production of crude oil, expenses in the protection of oilfields, funds used in the renewal and transformation of electrical power enterprises, and funds for the tapping of potentials and transformation of energy resources constituted 20.3 billion yuan. The funds used in energy saving measures were 3.3 billion yuan. All this has effectively guaranteed and promoted energy production increase and energy saving.

2. We Readjusted the Proportional Relationship Inside the Energy Industry. For a long time, because of the inadequacy of the new coal mines to enter production and because of the small increase in petroleum geological reserves, which was highly incompatible with the growth in output, disharmony resulted in the proportion between tunneling and extraction (stripping) and the proportion between extraction and reserves for many mines and oilfields. During the

period of readjustment over the last few years we relentlessly emphasized the work of tapping potentials and transforming old mines, filling up gaps and assembling complementary facilities, and gradually attained harmony in the seriously disharmonious proportional relationship. Of the 96 coal mines under unified distribution that were suffering from serious disharmony in the coordination between tunneling and extraction, 87 were basically restored to normal, which constituted 90 percent of the mines that were suffering from serious disharmony. The various oilfields also emphasized comprehensive readjustment, strengthened underground operation and guaranteed the stable production of crude oil under the condition when there was little growth in geological reserves.

3. We Established a Rational Energy Structure. In light of the characteristic that our country has extremely abundant coal resources, the state decided to take coal as the major energy resource at present as well as for a considerable length of time in the future, and adopted measures accordingly to support the various localities to change from burning oil to burning coal. By the end of 1982, the industrial enterprises had already changed 2,300 furnaces with a total of 28,400 tons of evaporative capacity from burning oil to burning coal. This could save 9.27 million tons of petroleum every year. At the same time, we actively developed hydroelectricity and made great efforts to increase the capacity of the hydroelectric generators. This increased the proportion of hydroelectricity in the gross volume of energy production from 3.8 percent in 1977 to 22.3 percent in 1982. In addition, our policy has actively encouraged the localities to develop energy resources, which included small coal mines, small hydroelectric plants, small methane-generating pits, and small solar collectors. We also developed small thermal power plants in the localities that had the conditions to do so.

4. We Vigorously Emphasized the Work of Saving Energy. We readjusted the industrial structure and the product structure, adopted policies and measures to promote energy saving, rectified the enterprises, strengthened management over energy resources, popularized the new energy saving technologies, carried out technological transformation with energy saving as the key, and launched the work of energy saving in a relatively broad and deep-going manner. At present, we have formed an energy-saving capacity of saving 4.5 million tons of standard coal. In 1982, the targets of energy consumption for most of the per-unit products dropped compared to the preceding year, and the energy consumption for every 100 million yuan of output value dropped 4.5 percent. The statistics of the energy-consumption targets of 72 per-unit products of some 2,100 key industrial and communications enterprises (which constituted roughly over 40 percent of the gross volume of energy consumption by the industrial and communications departments) showed that 2.95 million tons of standard coal were saved for the entire year. In particular, among the coal-consumption targets, 16 registered a drop by a relatively wide margin. They included the coke ratio of the blast furnaces, the consumption of standard coal by electricity supply, the consumption of coal as raw material and coal as fuel by synthetic ammonia, the consumption of coke by calcium carbide, the consumption of standard coal by plate glass, the consumption of standard coal by glass for daily use, and the consumption of standard coal by enamelware for daily use, all of which saved a total of 2.7 million tons of standard coal. Most of the targets for oil consumption and electricity consumption also dropped.

5. We Strengthened the Development of Energy Resources. In accordance with the principle of putting equal emphasis on developing and saving energy and on taking energy saving as the primary factor, while emphasizing energy production and saving, the state increased the investment in the development of energy resources, strengthened the work of geological prospecting, and further launched the work of cooperative development of coal and petroleum with foreign investors. Heartening achievements were scored in the petroleum prospecting at the Central Plains Oil Field and in the maritime petroleum prospecting at the Bo Hai Bay, the South China Sea and the South Yellow Sea.

Through the readjustment over the last few years, the situation of energy production in 1982 was fine. The primary energy output was converted to 668 million tons of standard coal, 5.7 percent over the preceding year. Of this, the output of raw coal totaled 666 million tons, 7.1 percent over the preceding year. Petroleum output was registered at 102 million tons, overfulfilling the plan by 2.12 million tons and maintaining the level of above 100 million tons for 5 consecutive years. Power output was registered at 327.7 billion kWh, 5.9 percent over the preceding year and 14.7 billion kWh over plan. Roughly 20 million tons of standard coal was saved throughout the country. The steady rise of energy production and the further drop in the energy consumption of per-unit output value created better conditions for the growth of industrial production in an all-round manner. However, energy production was still far from meeting the needs of the development of the national economy. The problem of energy shortage still posed a major obstacle in industrial production and in the development of the national economy for our country in the future period. The phenomenon of energy waste and excessive energy consumption was still very serious. In 1982, some energy-consumption targets even picked up again. A very urgent and arduous task in the future still lies in continuously and vigorously strengthening energy production increase and energy saving and in stepping up the development of energy resources.

Light and Heavy Industries Continued To Develop, With Basically Marketable Products

In 1982, in organizing industrial production, we continued to persevere in the principle of putting the production of daily consumer products in an important position and gave priority considerations and rendered vigorous support accordingly to such aspects as the supply of energy and raw materials, the tapping of potentials and renewal and transformation of facilities, the arrangement of capital construction forces, bank loans, the use of foreign exchange, the import of new technologies, and communications and transportation, thereby enabling light industrial production to continue to grow on the basis of the average annual progressive increase at 14 percent for the last 3 years. The gross value of light industrial output for the entire year amounted to 276.6 billion yuan, 5.7 percent over the preceding year. The proportion of the gross value of light industrial output in the gross value of the overall industrial output was 50.2 percent, which was higher than that of heavy industry. Of this, such durable consumer products as bicycles, sewing machines, television sets, tape recorders, washing machines for household use, refrigerators for household use and wristwatches increased separately from 14.9 percent to 124.5 percent over the preceding year. Textile products, cloth, woolen goods and gunny sacks

increased separately from 5.8 percent to 16.6 percent. Sugar and beer increased 6.9 percent and 28.6 percent, respectively. The quality of many light and textile industrial products was raised, and the designs, colors and varieties also increased. Many new products were warmly welcomed by the broad masses of consumers. For instance, Shanghai Municipality trial-manufactured 143 new varieties in the 6 major categories of products, including synthetic fiber imitation woolen products, imitation gunny products and imitation silk products. The new products such as the 100 percent polyester handkerchiefs from Shanghai, the pali [1584 7787] woolen fabric, the spindle-knit elastic woolen fabric, woolen sweaters and 100 percent polyester imitation silk produced in Beijing, as well as the yarn-dyed imitation coarse-weave woolen fabric produced in Tianjin were all popular. Some were even hot items on the international market where demand exceeded supply.

While light industry was developing steadily, the proportional relationships within light industry itself were further improved. 1) In the raw materials structure for light and textile industrial products, the proportion of products using industrial products as raw materials in the gross value of light industrial output continued to rise. In particular, the proportion of synthetic fiber in the raw materials for textile products was raised rapidly, and the growth in the output of synthetic fiber far surpassed the growth in the output of cotton cloth. 2) Changes took place in the structure of the light industrial products. In the three categories of consumer products, namely, food, clothing and articles of daily use, the proportion of articles of daily use was on the rise. Of the durable consumer products, the proportion of high-grade consumer products was on the rise. 3) The urban collective and individual small handicraft industrial production developed on a relatively large scale, and the proportion of its value of output continued to rise.

The steady development of light industrial production brought about prosperity to the urban and rural markets throughout the country. The previous situation in which there was a shortage of consumer products was to a great extent changed. The supply of goods to the market was relatively abundant. There was unlimited supply of a great number of industrial products for daily use. Some commodities began to go from the "seller's market" to the "buyer's market." The broad masses were rather satisfied with this aspect, which also further promoted economic stability, stability on the market and stability in the hearts of the people. With the steady growth of light industrial production and a further turn for the better in market supply, the light industrial market began to move from the previous state of a prominent contradiction in quantity in which demand exceeded supply to the state of a prominent contradiction in quality in which the consumers became more stringent in their choice of commodities. A phenomenon of "waiting with money in hand to purchase commodities" and "keeping money to make selective purchases" appeared. This asked that light industrial production emphasize making greater effort in raising product quality, increasing designs, colors and varieties and developing new products and new categories of products, so as to push the level of light industrial production to a new height.

After several years of readjustment in heavy industry, new progress was made in reforming the product structure, expanding the realm of service and raising

adaptability. The metallurgical industry, chemical industry, construction materials, machinery industry and electronics industry provided more products for the light industrial market and the rural areas. For instance, the output of steel products was 8.7 percent over the preceding year. Of this, "pipes, plates and strips," which for a long time were in great shortage, increased by a wider margin. Steel tubes increased 10.2 percent, medium-thickness steel plates increased 17.6 percent and strip steel increased 32.5 percent. Sulphuric acid, caustic soda, soda ash and chemical fertilizer separately increased from 3.2 percent to 7.8 percent. Cement and plate glass increased 14.8 percent and 15.7 percent, respectively. In machinery products, the vehicles and walking tractors that were needed in large numbers by the rural areas increased 11.4 percent and 49.7 percent, respectively. Mining equipment increased 37.4 percent. Railroad rolling stocks increased 22.1 percent. While making proper arrangements for the production of ordinary products, the machine-building and electronics industries actively developed the products that were in short supply on the market and that were of a higher technological level and a higher degree of difficulty in manufacture. While doing a good job in supplying individual machines, they actively developed the research and manufacture of complete sets and the supply of these complete sets. Under the situation when the international shipping market was extremely bleak, the value of transactions concluded through export of the shipbuilding industry amounted to some $800 million. This began to open up the situation for the export of ships. In 1982, heavy industrial production picked up rather rapidly. As of April, the monthly speed of increase surpassed that of light industry. The value of output for the entire year was 274 billion yuan, 9.9 percent over the preceding year. Of this, the machine-building industrial system registered a growth of 16 percent and the construction materials industrial system 11 percent. The reason why heavy industry picked up so rapidly was--besides the fact that the base figure for the preceding year was too low (1981 was 4 percent below 1980)--primarily because of the expansion of the scale of investment in capital construction, which was the highest level in history. At the same time, the rapid development of the rural economy, the further launching of the technological transformation of the enterprises and the expansion of export all asked that heavy industry provide more products. In particular, the development of the rural economy effectively promoted the growth by a wide margin of the agricultural means of production. The value of retail sales of the agricultural means of production for the entire year was 39 billion yuan, 12.2 percent over the preceding year.

New Progress Was Made in the Rectification, Readjustment and Reshuffling of the Enterprises

In order to further improve enterprise business management and raise the enterprise's economic results to meet the needs of the four modernizations, the CPC Central Committee and State Council decided that, as of 1982, on the basis of launching a restorative rectification of the enterprises, we should carry out constructive rectification in an all-round manner on the state-run industrial enterprises in a planned and step by step manner, by integrating the work at key points with the work in all areas, and by stages and in groups. We should focus on doing a good job of the work in these five aspects: Rectifying and perfecting the economic system of responsibility, rectifying and strengthening

labor discipline, rectifying financial and economic discipline, rectifying the labor organizations, and rectifying and building the leading bodies. In 1982, 10,883 state-run industrial enterprises at and above the county level within the budgeted plan were listed as the first group throughout the country to undergo rectification. Among these enterprises, 1,320 were large-scale and medium-sized core enterprises, which constituted more than half of some 2,000 large-scale and medium-sized core enterprises throughout the country. The various departments dispatched over 2,000 investigation teams with some 25,000 people to carry out rectification in the enterprises at the grass-roots level. After 1 year of hard work, by the end of the year, 599 industrial enterprises had completed all the five rectification tasks, which were inspected and accepted. They constituted 5.5 percent of the first group of enterprises to undergo rectification. Among them, 82 were large-scale and medium-sized core enterprises, which constituted 6.21 percent of the first group of large-scale and medium-sized core enterprises to undergo rectification. Through rectification, the outlook of the enterprises changed obviously and the economic results were generally higher than the enterprises in the country. The 97 large-scale enterprises throughout the country that were emphasized as focuses all launched all-round rectification successively, and 8 of them were inspected and accepted. As a result of launching rectification and implementing the economic system of responsibility, the situation of fulfilling production was better, and the gross value of output was 2.5 percent over the preceding year, while the profits and taxes delivered to the state were up 12.6 percent and the labor productivity up 5.6 percent. If we take into consideration such factors as higher interest rates in bank loans and the newly imposed special tax on burning oil that reduced the profits of the enterprises and not the state revenue, the margin of increase of profits and taxes delivered to the state would be even higher.

While carrying out enterprise rectification, in 1982, we continued to launch the work of readjusting and reshuffling the enterprises. 1) In light of their different situations, we separately carried out coordination of abilities, technological rectification, rectification and improvement, collective contracting and the closing down, stopping, merging and shifting of production of those enterprises which had poor business management, high material consumption, poor product quality and unmarketable products and which suffered losses over a long period of time. Incomplete statistics showed that, from January to October 1982, we closed down nearly 4,000 small enterprises, most of which were small machinery plants, small steel mills, small breweries, small paper mills, small textile mills and small chemical fertilizer plants with very poor economic results. From 1978 to the end of October 1982, the metallurgical industrial system closed down 339 small ironworks, which constituted 72.6 percent of the original 466 small ironworks. Rectification and transformation were carried out on the remaining small ironworks, resulting in an obvious increase in the various economic and technological targets. The rate of acceptability of pig iron went from 90.8 percent in 1978 to 98 percent in the first half of 1982. The coking in iron-smelting dropped from 950 kg to 661 kg, and the cost of iron per ton dropped from 303 yuan to 239 yuan. One-third of the small ironworks had realized profits, and reduced the amount of deficit from 630 million yuan to 70 million yuan. 2) In light of the situation of product redundancy, technological redundancy and the "large and

comprehensive" and "small and comprehensive" nature of the enterprises, we carried out the reshuffling of specializations of the existing enterprises according to product and parts. In order to give full play to the role of the trades and raise the socioeconomic results, we continued to organize and set up a number of national companies from those enterprises which were suitable for carrying out centralized management according to their trades. In 1982, very good results were scored in organizing and setting up primarily the following national companies: The petrochemical, nonferrous metallic industrial, shipbuilding industrial, automobile industrial and packing general companies. For instance, after setting up the China Shipbuilding Industrial General Company, under the principle of rational division of labor and selecting the outstanding in making arrangements, we carried out unified organization of production and repairs for the enterprises under the company, thereby raising the productive capacity by 20 percent. Organized and formed from the oil refinery industry of the Ministry of Petroleum, the petrochemical industry of the Ministry of Chemical Industry and the large-scale synthetic fiber enterprises of the Ministry of Textile Industry, the China Petrochemical General Company created fine conditions for doing a good job on a large scale of the rational use and sophisticated processing of petroleum, further developing the petrochemical industry, more effectively utilizing material and energy resources in a comprehensive manner and raising economic results. In 1982, in order to make things favorable for unified management and to prohibit blind development, we also consolidated and improved the existing national tobacco and salt general companies. Shattering the boundaries between departments and regions and organizing companies of the whole trade, we instituted a major measure in industrial readjustment and brought about a major breakthrough in the reform of the industrial system of management. 3) Some localities further developed the alliance among key enterprises. After the Shanghai Gaoqiao and Nanjing Jinling Petrochemical Companies, in 1982, regional companies such as the Fushun Petrochemical Industrial Company, the Shanghai Wujing Chemical Industrial Company, the Jinzhou Petrochemical Company were successively set up, which further formed the foundation for the rational use of petroleum. Beijing Municipality decided to abolish the municipal metallurgical bureau and merged the iron and steel enterprises throughout the municipality with the Capital Iron and Steel Company. In addition, it established the nonferrous metallic industrial company directly under municipal jurisdiction. This was of great advantage to organizing specializations in production, developing varieties, raising quality, controlling pollution and launching technological transformation according to trade. 4) Some industrial cities actively developed specializations in technology, such as thermal treatment, electroplating, casting, forging and machinery repairs, and organized and set up a number of cooperative centers of specialized factories, thereby raising the rate of equipment utilization, saving energy, lowering cost, improving quality and reducing environmental pollution. In the 41 cities throughout the country where industry was relatively concentrated, 34 cities formulated programs for technological specialization and actively organized and implemented the programs.

We Accelerated Our Pace in Reforming the Industrial System of Management

In 1982, from the state-run enterprises to the collective enterprises, from the large-scale and medium-sized enterprises to the small enterprises, from the enterprises making profits to the enterprises suffering losses, and from individual enterprises to the whole trade or the county and municipal economic committees, we popularly implemented the economic system of responsibility. By the end of the year, over 80 percent of the industrial enterprises were implementing the economic system of responsibility. The State Economic Commission and concerned departments attached great importance to and supported the implementation of the economic system of responsibility. They continued to sum up new experiences, study new problems and adopted a series of measures to further develop and perfect the system.

The substitution of tax payment for profit delivery was an attempt to further perfect and develop the economic system of responsibility. In 1982, the enterprises that participated in the pilot project showed that the growth in the income from sales was obviously higher than the growth in the gross value of output. In particular, the growth in the profits realized and the taxes delivered to the state was much, much higher than the growth in the gross value of output and the income from sales. For instance, in the 2 years since the enterprises trial-implemented the substitution of tax payment for profit delivery, the eight state-run industrial enterprises, including the Guangzhou Sewing Machines Industrial Company and the Jiangmen Nanfang Food Factory in Guangdong Province, registered an average annual growth of 69.8 percent in profits delivered to the state as compared to that before the pilot project; a growth of 47.6 percent in taxes delivered to the state; and a reduction of 87.6 percent from state appropriations, which was equivalent to a growth of 77.1 percent in the net income of the state. Practice proved that changing from delivery of profits to the state to delivery of taxes to the state was favorable to guaranteeing a steady growth in the state financial revenue, favorable to gradually expanding the decision-making power of the enterprises, favorable to eradicating the malpractice of eating out of "the same big pot," and favorable to giving play to the role of taxation as a lever to regulate production and distribution. This was a fine form of correctly handling the relations in distribution between the state and the enterprise, was an effective measure for mobilizing the enthusiasm of the enterprise and perfecting the economic system of responsibility, and was in accordance with the direction of reform of the economic system. This method of reform would be popularly implemented throughout the country in 1983.

In order to overcome such instances as separation of urban from rural areas, separation of central and local authorities, redundancy in production, stoppage of circulation, waste in transportation, diversity in leadership, and mutual restrictions in our economic lives, in 1982, we made new progress in giving play to the role of large-scale and medium-sized cities in organizing the economy. In some localities, besides the national companies and a few large-scale core enterprises which were still directly under the control of the departments in charge of the central authorities, a large number of enterprises gradually became the responsibility of the cities. In addition, we implemented the new system of municipalities administering the surrounding

counties. At the same time, using the cities where the economy was more developed as the centers to lead the surrounding rural areas, we comprehensively considered such situations as resources, market, technology, communications and the production factors of the existing enterprises, unified and organized production and circulation, and gradually formed economic zones of all scales and all types with the cities as the centers. For instance, Sichuan Province already decided to transfer all the power of the enterprises directly under the provincial jurisdiction to Chongqing City, and let that city make overall planning by shattering the relationship in which the enterprises were subordinate to the trade and the restrictions of the system of ownership, and carry out enterprise reshuffling and alliance in accordance with the principle of cooperation among specializations and a rational economy. As for the large number of enterprises throughout the country that were under county jurisdiction, in 1982, we further popularized the experience of Qingyuan County in Guangdong Province in implementing unified leadership of the county economic committee over the enterprises throughout the county. Relatively good results were scored in the implementation of this reform to varying degrees by about 400 counties (cities).

In order to speed up the import of advanced technology from abroad and the transformation of the large numbers of medium-sized and small enterprises, the State Council decided to use Tianjin and Shanghai Municipalities as the pilots in trial-implementing the expansion of the decision-making power of the municipality in importing technology and transforming medium-sized and small enterprises. Every year, a portion of the foreign exchange from the state and foreign exchange loans from the Bank of China was appropriated to the two municipalities, which would then make arrangements for projects of transformation on the basis of the overall plan of development and the overall balance. The pilot project for this reform would be launched in 1983.

In 1982, new progress was made in the reform of the industrial system of management. But the reforms that were undertaken were small-scale and of a pilot nature. Not much change was seen in the condition in which the enterprises had little power, a lot of mothers-in-law, and a heavy burden. The enterprises still had very little decision-making power. The various concerned departments failed to carry out reform in a sufficiently concerted manner. All kinds of problems still existed in the reform. Thus, we must continue to accelerate our pace of reform and actively create the conditions for launching reform in an all-round manner.

We Have Done a Large Volume of Work in the Technological Transformation and Technological Progress of the Enterprises

In 1982, the various localities and various departments further realized the fact that an economic revival must rely on technological progress. They did a large volume of work in such aspects as technological transformation of the enterprises, popularization of new technologies, import of advanced technology from abroad, raising product quality and development of new products.

In regard to the technological transformation of the enterprises, the State Council successively publicized the "Decision on Launching Technological

Transformation by the Existing Enterprises With Emphasis and in a Step by Step Fashion" and the "Regulations for the Implementation of Technological Transformation of the Machine-building Industry," thereby effectively promoting technological transformation. The concerned departments successively arranged and dispatched around 5,000 renewal and transformation projects. These projects took such measures as saving energy, increasing the production of light and textile industrial products, strengthening communications and transportation and coordinating raw and processed materials as the key. Some already preliminarily scored marked economic results. From 1979 to 1982, the coal, electricity, petroleum and water saved through technological transformation totaled 23 million tons of coal. The petroleum-burning capacity was cut down by 11 million tons, the restored capacity of generators was some 4 million kilowatts, and the increased capacity of light and textile industrial products amounted to an annual output value of some 20 billion yuan. The machine-building and electronics industrial enterprises took the lead in technological transformation. Some 550 projects in the first group underwent transformation, and they were launched gradually.

In 1982, the various departments scored definite results in carrying out scientific research work in close integration with the actual needs of production. The machine-building industrial system scored a total of 1,487 scientific research results, among which 257 were major scientific research results. For instance, the installation of automatic control of thickness under hydraulic pressure of the 1,700-continuous hot rolling mill reached the advanced level in its major targets. Nearly 1,000 chicken farms were equipped with the complete set of facilities for feeding 15,000 layers, with marked economic results. In 1982, over 30 important new techniques were emphasized and popularized throughout the country. Some of them scored marked economic results. For instance, the far infrared baking technique was used in 80 percent of the electrical heating facilities throughout the country. This could save 1.2 billion kWh of electricity every year. The comprehensive utilization of coal mullocks and bone coal could replace roughly 6 million tons of fine coal. The substitution of aluminum for silver in the manufacture of mirror could save 20 tons of silver. The substitution of silver alloy and composition metal for silver in the switch and touch-point of the low-voltage electrical appliances could save 20 tons of silver. A grand total of 6.5 million marsh-gas tanks were built, which could save over 200 million yuan of expenses in building coal mines, and so on.

In regard to the import of advanced technology from abroad, the number of projects and the amount of money both registered greater increase over the preceding year. The concerned departments already stipulated a program for importing 3,000 advanced technological projects in the next 3 years, and also proposed policies and measures of encouragement such as the improvement of the method of inspecting imported facilities, tax exemption for imported facilities and the implementation of comprehensive loan repayments.

In regard to raising product quality and developing new products, much work was done. Through enterprise rectification and the strengthening of all-round quality management, product quality was raised. In 1982, in the 67 major products, the quality targets of 22 of them were higher than the preceding year,

which constituted 32.8 percent of the total; 30 of them maintained the same quality level, which constituted 44.8 percent. The grand total throughout the country showed that there were over 1,000 fine quality products that won the state's outstanding quality award, over 5,000 that won the ministry award, and over 10,000 that won awards from the provinces, municipalities and autonomous regions. The proportion of the output value of fine quality products in the gross value of industrial output continued to rise. Such provinces and municipalities as Beijing, Tianjin, Shanghai, Liaoning and Jiangsu reached 15 percent or thereabout. The individual cities where industry was concentrated reached 20 percent. There were already over 16,000 enterprises throughout the country which trial-implemented all-round quality control. Over the last several years, there was an average annual increase of some 5,000 new products, with some 60,000 renewed designs, colors and varieties. The situation in which products were "the same for 20 to 30 years" changed somewhat. In 1982, the machine-building industrial system researched and manufactured some 650 major new products with a higher technological level, higher degree of difficulty in manufacture and better economic results.

Much work was done in regards to strengthening technological management. In 1982, 1,000 state criteria were stipulated, with a grand total of 4,400 criteria. The metallurgical and machine-building industrial departments began to organize production of a portion of their products in accordance with the international criteria. The work in measurement and testing, technological patents, technological information and technological files was definitely strengthened.

There Were Improvements in the Economic Results in Industry

At the National Conference on Industrial and Communications Work, convened in the spring of 1982, it was emphasized that economic work should be shifted onto the path of taking rhe raising of economic results as the key. Since then, the leadership at various levels and the broad masses of workers began to attach importance to raising economic results, and began to change the situation of the preceding 2 years in which the economic results were dropping. Improvement was seen in certain aspects. The districts where industry was originally more advanced began to pay attention to intensive business. They made great efforts in the renewal and replacement of products, high quality and low consumption and marketability. Although the speed of growth in production was not very high, the economic results were better. In the minority nationality districts where the industrial basis was relatively backward, not only did production increase by a wide margin, the economic results of the various major targets were much improved compared to the preceding year. However, many of the problems that had existed over a long period of time affecting the raising of economic results of the various major targets were much improved compared to the preceding year. However, many of the problems that had existed over a long period of time affecting the raising of economic results could not be solved completely within a short period of time. Generally speaking, the economic results were still relatively poor.

The situation of the industrial economic results in 1982 was primarily as follows:

Production and sales basically increased in a synchronous manner. We fulfilled or overfulfilled most of the plans for output for the entire year of the major industrial products. The plans we did not fulfill were generally for those that belonged to the products that were in abundant supply. The marketable products increased by a relatively wide margin. Calculating from the constant specifications, the state-run industrial enterprises within the budget registered an increase of 6.4 percent in their gross value of output over the preceding year, an increase of 6.2 percent in their income from sales, and a basically synchronous growth between production and sales. The yearend reserves of steel products, electromechanical products, agricultural means of production and most of the industrial products for daily use were reduced compared to the beginning of the year.

The quality level of 77.6 percent of the major products was either raised or maintained.

The material consumption for the major per-unit products was reduced. In the targets of material consumption for 99 major per-unit products, 43 registered a drop compared to the preceding year, constituting 43.4 percent, and 26 maintained the same level, constituting 26.3 percent.

The period of turnover for circulating funds was shortened by 2.4 days compared to the preceding year. Under the circumstance when light industry registered a production increase and when heavy industry picked up again, the increase in circulating funds was reduced compared to the stipulated plan. However, the funds for the finished products increased.

The total cost of the comparable products dropped 0.04 percent as compared to the preceding year. If we deduct certain objective factors, such as the levying of special taxes for burning oil and the raising of interest rates for bank loans, the actual cost would be even lower.

The number of enterprises suffering deficit, the area of deficit and the amount of deficit dropped by 7.3 percent, 7.2 percent and 1.1 percent, respectively as compared to the preceding year.

The labor productivity for all personnel of the independent accounting industrial enterprises under the system of ownership by all people was 2.3 percent over the preceding year.

The situation regarding safety in production was better, and the casualty rate among staff and workers was lowered.

The profit realized and the profit delivered to the state dropped. If we take out the variable factors produced by the economic policy readjustment, then there was increase compared to the preceding year, although it was still slower than the speed of increase in production.

However, we should also be able to see that the economic results in industrial production for 1982 were not ideal enough. The situation of low production efficiency, high consumption and high waste was still rather widespread.

Because capital construction was promoted too vigorously and heavy industrial production picked up rapidly, the situation of shortage in energy and raw material as well as communications and transportation was further intensified. The proportion of development among the processing industry, raw materials industry and mining industry inside heavy industry itself was still not harmonious enough. Light industrial production still failed to properly adapt to the changes of the market. Some localities still displayed the phenomenon of redundant construction and blind development. The industrial system of management was still unable to adapt to the development of the productive forces. The level of production technology and business management of the enterprises was still relatively low, and so on. All these problems still await further solution in the work in 1983.

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CHINA'S COMMUNICATIONS AND TRANSPORTATION IN 1982

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 68-III 70

[Article by the Comprehensive Transportation Research Institute of the State Economic Commission]

[Text] In 1982, China's communications and transportation professions overfulfilled the state transportation plans and basically guaranteed the transportation of key materials and passenger transportation. Better results were scored in the capital construction and technological transformation involving communications, and the economic results were raised. But the railroad transportation and harbor handling capacity still failed to meet the needs of the development of the national economy. The situation of safety in transportation was still not good enough, and major accidents occurred in railroad and other means of communications as well as civil aviation.

I. The Volume of Passenger and Cargo Transportation and the Loading and Unloading Capacity of the Major Harbors

1. The Volume of Transportation. In 1982, the total volume of passenger transportation was 4,289,650,000 people, overfulfilling the fiscal plan. Of this, the railroad fulfilled 104.2 percent of the plan and the water transportation enterprises directly under the Ministry of Communications fulfilled 120.2 percent of the plan. In cargo transportation, the state of a continuous drop in the volume of cargo transportation for the preceding 2 years was changed, reaching a total of 2,475,070,000 tons, 6.9 percent over 1981. Of this, the railroad fulfilled 106.7 percent of the plan, and the water transportation enterprises directly under the Ministry of Communications fulfilled 110.7 percent of the plan. The growth in the volume of cargo transportation was primarily due to the fact that heavy industrial production picked up rather rapidly, that light industrial production developed continuously, that energy production steadily increased and that agricultural production scored bumper harvests consecutively. In the volume of cargo transportation, the proportion of the volume of transportation involving agriculture, light industry, energy industry and foreign trade goods and materials was maintained at the level of 1981, while the volume of transportation involving the iron and steel industry, machine-building industry and capital construction materials began to pick up, changing the situation of large-scale reduction in recent years. For instance, in the structure of railroad cargo transportation volume,

light industrial products maintained the level of 11.5 percent, coal and petroleum and other products still constituted 44 percent, while capital construction materials went from 19.5 percent to 20.6 percent. The volume of passenger and cargo transportation fulfilled in 1982 is shown in the following table:

Item		1978	1981	1982	Growth in percent in 1982 over 1981
Volume of passenger transport (10,000 people)	Total	253,993	384,844	428,963	11.5
	Railroad	81,491	95,300	99,921	4.8
	Highway	149,229	261,559	300,610	14.9
	Waterway	23,042	27,584	27,987	1.5
	Civil aviation	231	401	445	11.0

Item		1987	1981	1982	Growth in percent in 1982 over 1981
Volume of cargo transport (10,000 tons)	Total	248,946	231,605	247,507	6.9
	Railroad	110,119	107,673	113,532	5.4
	Highway	85,182	71,504	78,777	10.2
	Waterway	43,292	41,490	44,329	6.8
	Pipeline	10,347	10,929	10,859	-0.6
	Civil aviation	6	9.42	10.2	8.3

Note: In this table as well as the following tables, the railroad figure includes local railroads; and the highway figure does not include social vehicles.

2. The Volume of Turnover. The volumes of passenger and cargo turnover fulfilled by the five different modes of transportation, namely, railroad, highway, waterway, civil aviation and pipeline, were all larger than 1981. The details can be seen in the following table:

Item		1978	1981	1982	Growth in percent in 1982 over 1981
Volume of passenger turnover (100 million people/km)	Total	1,743	2,500	2,744	9.8
	Railroad	1,093	1,473	1,575	6.9
	Highway	521	839	964	14.9
	Waterway	101	138	145	5.0
	Civil aviation	28	50	60	20
Volume of cargo turnover (100 million tons/km)	Total	9,829	11,616	12,403	6.8
	Railroad	5,345	5,712	6,120	7.1
	Highway	274	253	303	19.8
	Waterway	3,779	5,150	5,477	6.3
	Pipeline	430	499	501	0.4
	Civil aviation	1	1.7	2.0	17.6

3. Average Distance of Transportation. The gross average distance of the five modes of transportation showed that it was 64 km for passengers, which was 1 kilometer less than 1981. But the average distance of transportation for the railroad, waterway and civil aviation all registered increase. It was 501 km for cargos. With the exception of water transportation, which was reduced by 5 km, the average distance of transportation for the other modes of transportation was all lengthened compared to 1981. The details are shown in the following table:

Item		1978	1981	1982
Average distance of passenger transportation (km)	Gross average distance of transportation	68.5	65	64
	Railroad	134	155	157.6
	Highway	34.9	32	32
	Waterway	43.8	50	51.8
	Civil aviation	1,212	1,247	1,348
Average distance of cargo transportation (km)	Gross average distance of transportation	394.8	502	501
	Railroad	485	530	539
	Highway	32.2	35	38.4
	Waterway	873	1,241	1,236
	Pipeline	416	457	461
	Civil aviation	1,667	1,805	1,961

4. The Proportion of Passenger and Cargo Transportation by the Various Modes of Transporation, can be seen in detail in the following table:

Year	Volume of passenger transportation (percent)					Volume of passenger turnover (percent)				
	Total	Railroad	Highway	Waterway	Civil aviation	Total	Railroad	Highway	Waterway	Civil aviation
1981	100	24.7	68.0	7.2	0.1	100	58.9	33.6	5.5	2.0
1982	100	23.3	70.1	6.5	0.1	100	57.4	35.1	5.3	2.2

Year	Volume of cargo transportation (percent)					Volume of cargo turnover (percent)				
	Total	Railroad	Highway	Waterway	Pipeline	Total	Railroad	Highway	Waterway	Pipeline
1981	100	46.5	30.9	17.9	4.7	100	49.2	2.2	44.3	4.3
1982	100	45.9	31.8	17.9	4.4	100	49.4	2.4	44.2	4.0

5. The Loading and Unloading Volume of the Harbors. In 1982, the major harbors along the seacoast and the Chang Jiang fulfilled a loading and unloading volume of 333 million tons, overfulfilling the plan by 14.1 percent, and registering an 8.4 percent increase over 1981. Of this, the harbors along the seacoast handled 237.64 million tons, 8.4 percent over 1981, while the harbors along the Chang Jiang handled 95.36 million tons, 8.8 percent over 1981. In the loading and unloading volume of harbors along the seacoast, foreign trade goods and materials constituting 33.8 percent.

II. Transportation of Key Goods and Materials and Passenger Transportation

1. Coal Transportation. We overfulfilled the state plan for coal transportation for the entire year. We fulfilled the transportation of 90.36 million tons of coal by railroad out of Shanxi Province, which was 105.7 percent of the state plan and 8.86 million tons more than 1981. We fulfilled the transportation of 47.7 million tons of coal to the east China region (including the portion for export and for supply to Guangdong Province), 950,000 tons more than the plan and 4.95 million tons more than 1981. We fulfilled the transportation by water southward from Qinhuangdao Harbor of 16.83 million tons of coal, 1.83 million tons over the plan. We fulfilled the supply of 20,515,000 tons of coal to the northeast region, 615,000 tons over the plan and 3,727,000 tons more than 1981.

2. The Transportation of Foreign Trade Goods and Materials. In 1982, the major harbors along the seacoast under the Ministry of Communications fulfilled the 80,494,000 tons of foreign trade import-export goods and materials, 7.4 percent over 1981. The average daily number of foreign trade ships in the harbor was 223.2, 35 ships less than the 258.3 ships in 1981. In the third quarter, because the imported grain arrived at the harbor in a concentrated manner (780,000 tons more than the monthly average level), the

situation of holding up ships and holding up cargo once took place. However, the concerned departments and localities made great effort to effectively clear the harbor and restored the situation to normal. In short, in 1982, the phenomenon of holding up the harbor by foreign trade ships was relaxed to a relatively great extent. In order to meet the needs of the transportation of foreign trade goods and materials, in 1982, the state approved of the three harbors of Jiuzhou, Shekou and Quanzhou and formally opened them up to the outside world.

3. Passenger Transportation. The volume of passenger transportation fulfilled by the communications and transportation profession in 1982 was the highest level in history. Regarding the various modes of transportation, the growth of highways was the fastest. The volume of passenger transportation reached 3 billion people, and the volume of passenger turnover reached 96.4 billion people per km, both being 14.9 percent higher than 1981. In order to satisfy the needs of overseas Chinese and compatriots from Hong Kong and Macao to return to the country to visit friends and relatives, the state also approved of the opening of harbors along the inland river such as Wuzhou, Jiangmen and Zhaoqing as well as the passenger liners operating between the Huangpu Harbor and Hong Kong.

III. Joint Transportation, Containerized Traffic and Bulk Transportation

1. Joint Transportation. In 1982, the joint railroad-waterway transportation handled 55 million tons of staple goods and materials, some 4 million tons over 1981. We developed over 400 joint transportation service network outlets along the railroad, coastal and Chang Jiang trunk lines and for the agencies and transfer stations of the local highway and water transportation departments. Of this, 80 were joint transportation service companies (stations) which were implementing independent economic accounting.

2. Containerized Traffic. In 1982, the railroads throughout the country already had 86,000 one-ton containers and 14,300 five-ton containers. The container-handling stations increased from 179 in 1981 to 192. In 1982, there were 2,958,000 containers in railroad transportation, with a capacity of 2.71 million tons, which showed an increase of 19.2 percent and 17.8 percent over the preceding year respectively. The proportion of the volume of railroad containerized traffic in the gross volume of piecemeal cargo transportation went from 13 percent of the preceding year to 13.8 percent in 1982. The period of turnover for railroad containers was 11.33 days, 0.1 day shorter than the preceding year. The rate of circulation of empty containers dropped from 30 percent in 1981 to 15 percent.

By the end of 1982, the water transportation departments had already had 4 routes for international containerized traffic and 12 routes for containers along the seacoast and the Chang Jiang. The water transportation departments shipped 80,400 international containers, 30,000 state standard 5-ton containers and 3,000 two-ton containers, showing an increase of 24 percent, 103 percent and 180 percent over 1981, respectively. The harbors handled 159,000 international containers (the volume of transportation being 1,156,000 tons), some 62,000 state standard 5-ton containers and some 6,000 two-ton containers, showing

an increase of 40 percent, 90 percent and 178 percent over 1981, respectively. The proportion of the cargo handling capacity by international containers fulfilled by the five large harbors of Dalian, Tianjin, Qingdao, Shanghai and Huangpu in the gross import-export volume of miscellaneous foreign trade goods went from 4.9 percent in 1981 to 7.9 percent. Because of the active development of inland transportation by containers, the number of containers that had to be opened at the harbors dropped from 52,000 containers in 1981 to 25,000 containers.

In 1982, the vehicular transportation departments took over the transportation of 2,151,000 containers from the railroad, 36.7 percent over 1981. Of this, the proportion of "door-to-door" transportation went from 31 percent in 1981 to 36.2 percent. In places like Qingdao and Jinan, it was already over 90 percent. In 1982, the vehicles took over 134,000 international containers that arrived at the harbors, 32 percent over 1981.

China's civil aviation used three Boeing 747-SB planes on seven international lines to operate containerized traffic.

China's foreign trade containerized traffic business developed further. In 1982, there were already 14 railroad stations that operated international large-scale containerized traffic business, and over 2,000 large containers were shipped to Europe and the Middle East region via the Soviet Union mainland bridge.

3. Bulk Transportation. In 1982, the state focused on the work of assembling the facilities in the bulk transportation of cement. In Guangzhou, Shenzhen, Tianjin, Beijing and Nanchang, a number of transfer warehouses were built or expanded. Bulk transportation facilities were expanded in the cement factories in Harbin, Gongyuan, Wannian, Yingde and Chongqing. Additional special-purpose vehicles were equipped. The volume of bulk transportation of cement fulfilled for the entire year was 10 million tons, which constituted 10.6 percent of the total output of cement. In addition, the bulk transportation of 25 million tons of grain was fulfilled, which constituted 17 percent of the total amount of grain transported, and which showed an increase of 2 percent over the preceding year. In the bulk transportation of grain, railroads constituted 54 percent, highways 32 percent and waterways 14 percent. Adopting the bulk transportation of grain saved 80 percent of the packaging fees in packaged transportation, lowered transportation and miscellaneous fees by 30 percent, and raised labor productivity and transportation efficiency by 50 percent and 30 percent, respectively.

IV. The Construction of Communication Lines

In 1982, the state increased investment in the construction involving communications and transportation. We newly built and laid 95.4 km of principal railroad lines, added 275.2 km to the operating mileage of the multiple tracks and completed 116 kilometers of electrification for the entire year. These engineering projects primarily involved the following: The building of the Fuyang-Huainan Railroad, the repairs of some sections of the multiple tracks of the Lianyinggang-Lanzhou Railroad, the Jinan-Qingdao Railroad, the Shijiazhuang-Chengde Railroad, the Shanghai-Nanjing Railroad, the Beijing-Baotou Railroad, the Shanghai-Hangzhou Railroad and the Harbin-Manzhouli

Railroad, and the railroad electrification project of the northern section of the Yangquan-Taiyuan Railroad. A total of 7,316 meters of tunneling projects and 414 meters of large bridge construction projects were completed for the entire year. Progress was accelerated in the key construction projects of the Dayaoshan Tunnel at the southern section of the Beijing-Qinghuangdao Railroad and the Beijing-Guangzhou Railroad, as well as the railroad electrification of the Fengtai-Shacheng-Datong Railroad.

In 1982, the investment in capital construction fulfilled by the enterprises directly under the Ministry of Communications was 60 percent over the preceding year. The newly-increased harbor handling capacity for the entire year was 21.82 million tons. Of this, the handling capacity of the deep-water berth of the Beichang Harbor in Zhejiang was 20 million tons. The harnessing project of the Beijing-Hangzhou Canal made relatively rapid progress. Jiangsu Province mobilized 240,000 civilian workers to complete in 35 days the dredging project of 52 km of the section from Baoying to Huaian. The harbors directly under the Ministry of Communications completed 71 technological transformation projects, and newly increased their handling capacity by 4.57 million tons. Some 11,000 km of highways were built, some 100,000 meters of bridges extended and some 4,800 km of road surface paved with asphalt and residual oil for the entire year. The Luzhou Bridge in Sichuan, the Huanghe Highway Bridge in Jinan and the Yian-Shaming Highway in Hebei were completed, inspected and accepted.

In civil aviation, the Beijing-Shanghai-Los Angeles line was opened. Flights were added to the Beijing-Tokyo and Shanghai-Tokyo and Shanghai-Osaka lines. The Beijing-al-Shariaah-Baghdad flight was restored. The number of flights from Shanghai, Guangzhou and other places to Hong Kong was increased. Chartered flights were beginning to operate from Xian to Hong Kong. In addition, lines were opened from Xian to Yinchuan, and Lanzhou to Dunhuang via Jiuquan. The expansion project for the Fuzhou Airport and the new construction project for the Dunhuang Airport were both completed.

V. The Work of Safety in Transportation

In 1982, the various communications and transportation departments in China experienced major accidents, incurring serious losses. On 26 April 1982, on its way from Guangzhou to Guilin, Civil Aviation Administration of China Flight 3303, plane No 266, crashed into the mountains above Gongcheng County in Guangxi. The 104 passengers and 8 members of the crew on that flight were all killed. On 28 May, the 193d railroad passenger express overturned as it was passing the Xinglong Station of the Shenyang-Shanhaiguan Railroad, resulting in personal injuries and deaths, and cutting off the transportation of the principal line of the Shenyang-Shanhaiguan Railroad southward for nearly 20 hours. In the communications departments, other major accidents also took place successively, such as the explosion and sinking of the "Daqing No 53" tanker, the incident in which the Chang Jiang piling boat ran into and damaged the steel beam of the Wuhan Chang Jiang Bridge, as well as car accidents involving collision and overturning.

Under the concern and instruction of the leading comrades of the State Council, communications and transportation departments conscientiously dealt with the aftermath of the major accidents. They also learned from their lessons and stipulated measures for improvement: 1) Firmly uphold the thinking of "safety first." 2) Establish a strict system of responsibility in leadership, in which every level is responsible for safety. 3) Strengthen basic work. Educate the staff and members to abide by rules and discipline, strengthen professional training, set a schedule for mastering the professional knowledge which one must know, and raise the level of production technology. 4) Carry out mass safety inspection in an organized manner and with emphasis, and adopt solution measures immediately whenever hidden dangers of technological facilities are discovered, for instance, those which would directly endanger safety in transportation. 5) Do a good job of security work along the communication lines, and so on. After the implementation of the above-mentioned measures, the safety situation in transportation took a slight turn for the better. The major and big accidents involving the railroad were reduced by 23.8 percent in the latter half of 1982, as compared to the first half of that year. For the entire year, there were nine cases less than 1981, and the number of highway traffic accidents and the number of injuries and deaths dropped respectively by 9.5 percent and 8.3 percent compared to 1981.

VI. Economic Results

In 1982, the communications and transportation departments scored relatively good economic results. Compared to 1981, the labor productivity for all personnel of the railroad transportation enterprises was up 3.3 percent. The daily output of cargo transportation engines went from 718,000 ton kilometers/engine to 720,000 ton kilometers/engine, an increase of 0.3 percent. The consumption of oil by the internal combustion engine for every 10,000 ton kilometers dropped by 2.9 percent, while the consumption of coal by the steam engine for every 10,000 ton kilometers went up by 0.7 percent due to the readjustment of the operation sections. The realized profit by the railroad departments increased by 22.1 percent, which was the highest level in recent years. The labor productivity for all personnel of the water transport enterprises directly under the Ministry of Communications was up 3.8 percent. The average annual output of the deadweight tonnage of a ship went from 39,572 ton kilometers to 41,400 ton kilometers, an increase by 4.6 percent. The average length of stay of ships at the harbor in the major harbors along the coast was shortened from 3.7 days to 3.3 days. Of this, the length of stay at the harbor of the foreign trade ships was shortened from 10.4 days to 8.8 days. The money paid to the foreign trade ships for losses involving sailing dates was reduced by $90 million and the net income from the swift dispatch of foreign trade ships increased 50.4 percent. The enterprises directly under the Ministry of Communications saved 9,500 tons of oil, 7,100 tons of coal, and 13.60 million kWh of electricity, which amounted to 151,000 tons of standard coal, for the entire year. They overfulfilled their targets of energy saving for the entire year by 12 percent and delivered 11.5 percent more profit to the state. The annual output of the tonnage of the truck of the highway transportation departments went from 36,737 ton kilometers to 39,007 ton kilometers, an increase of 6.2 percent. The profit delivered to the state by the local state-run communications and transportation enterprises increased by

7.3 percent, changing the state of the last few years in which financial revenue dropped. The rate of utilization and the rate of transportation by civil aircraft were both raised. The average daily rate of utilization of the major carrier types was as follows: the Boeing 747 plane was raised by 1 hour 17 minutes and the Boeing 707 plane by 23 minutes. Under the circumstance when transportation capacity did not increase, the Civil Aviation Administration increased the gross volume of turnover of air transportation for the entire year by nearly 100 million ton kilometers, with an increase of 11 percent in the profits realized.

In 1982, although the communications and transportation professions in China overfulfilled their transportation plans, the contradiction of inadequate transportation capacity was still extremely prominent. The coal transportation tasks were fulfilled after having crowded out the transportation of other goods and materials. In 1982, in the volume of transportation out of Shanxi Province by railroad, coal already constituted 88.4 percent, while the other goods and materials only constituted 11.6 percent. In foreign trade transportation, due to the inadequacy of the harbors, some goods and materials that were urgently in need of being exported or imported could not be loaded and unloaded or transported out in time, thereby resulting in all kinds of losses. In passenger transportation, although some measures were adopted, the vehicles and ships were still generally overcrowded. Furthermore, the technological transformation projects of the Fengtai-Shacheng-Datong, Qingdao-Jinan, Beijing-Guangzhou, Shanghai-Hangzhou, Hangzhou-Zhuzhou, Baoji-Chengdu and Tianshui-Lanzhou Railroads would also affect the present transportation capacity. Also, not too many new berths would enter production in the latter 3 years of the "Sixth 5-Year Plan." Thus, in the next 3 to 5 years, the condition of shortage in communications and transportation will not be improved markedly. An important approach in raising the transportation capacity lies in strengthening the organization work in transportation, emphasizing technological transformation measures, tapping potentials of existing facilities and raising efficiency in transportation.

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CHINA'S DOMESTIC COMMERCE IN 1982

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 73-III 76

[Article by Xu Jinlu [6079 6651 6922] of the Commercial Economics Research Institute of the Ministry of Commerce]

[Text] In 1982, the commercial departments at home adopted a series of measures of readjusting and restructuring, relaxed their policies, vitalized circulation and rendered new contributions to the development of industrial and agricultural production and the improvement of the people's livelihood.

I. We Further Reformed the Commercial System

1. We Reformed the System of Circulation of Industrial Products

In June 1982, the State Council made the "Decision on Opening Up the Channels of Circulation for Urban and Rural Commodities and Increasing the Supply of Industrial Products to the Rural Areas." It asked that we change the former system of division of labor between the urban and rural areas in the circulation of industrial products to a new system of division of labor according to commodities and open circulation between the urban and rural areas, and that, on the basis of giving play to the role of the basic-level supply and marketing cooperatives, we let the state-run companies in charge assume full responsibility for making overall arrangements for the urban and rural markets throughout the country. After the "Decision" had been dispatched, the various localities actively implemented the following: 1) They increased the proportion of industrial products that were distributed to the supply and marketing cooperatives, and in particular, increased the proportion of the industrial products that were in great demand. 2) The state-run commercial companies directly set up extended points at the important market towns, or, under the principle of voluntary participation and mutual benefit, set up joint wholesale-retail shops with the supply and marketing cooperatives. 3) In light of different situations, they separately ran comprehensive, specialized or seasonal commodity expos at the county seats or large market towns below the county level. 4) They organized the various wholesale organizations to bring with them catalogs, samples, accounting books and receipts to go around the rural areas, carry out wholesale to the doorstep, and assist the basic-level supply and marketing cooperatives in increasing designs, colors and varieties and expand

the sales of industrial products. 5) They organized teams of itinerant merchants and adopted such methods as "large boxcars," street vendors, caravans and pack baskets to go to the "exhibits" and fairs, to go to villages and to deliver goods to the doorstep.

Because of a bumper harvest in agriculture and the raising of the peasants' purchasing power, and because of the definite results that were scored in the work of opening up the channels of circulation between the urban and rural areas and of reforming the system of circulation of industrial products, in 1982, the volume of retail sales of commodities in the rural areas of our country amounted to 148 billion yuan, 11.8 percent over the preceding year and 82.6 percent over 1978. It also far surpassed the 6.2 percent increase over the preceding year in the volume of retail sales of commodities in the urban areas. In particular, there was improvement in the supply of the valuable durable consumer products which had for a long time been in short supply in the rural areas, and the volume of sales increased sharply. In 1982, 7,831,000 bicycles were sold, 56.2 percent over the preceding year; 4,901,000 sewing machines were sold, up 36.1 percent; 8.55 million wristwatches which were made in China were sold, up 75.1 percent; and 370,000 television sets were sold, up 28.4 percent. Other major industrial products that were supplied to the rural areas also increased by a wide margin. For instance, the sales of edible sugar was 1.32 million tons, 12.9 percent over the preceding year; the sales of cotton and synthetic fiber cloth was 1.1 billion meters, up 5.1 percent; while laundry detergents and lightbulbs increased 10.4 percent and 9.2 percent, respectively.

2. Pilot Projects To Reform Basic-level Supply and Marketing Cooperatives

In January 1982, the CPC Central Committee approved and dispatched the "Summary of the National Conference on the Work in the Rural Areas" and asked that every province, municipality and autonomous region select one to two counties as pilot points for the reform of the supply and marketing cooperatives. The statistics in October 1982 showed that 32 counties of 18 provinces had carried out pilot projects in this respect. By the end of January 1983, there were already 613 pilot counties, constituting 28.7 percent of the total number of counties; and there were already 11,000 pilot basic-level supply and marketing cooperatives, which constituted 30 percent of the total number of basic level supply and marketing cooperatives. The following reforms were primarily carried out in the pilot project launched by the various localities: 1) The cooperative economic nature of the supply and marketing cooperatives was restored. Under the principle of voluntary participation, the various pilot units all expanded the absorption of peasants and production teams as shareholders. The scope of shareholding generally constituted roughly 80 percent of the peasant households. Incomplete statistics showed that the money paid for shares by the members of the supply and marketing cooperatives throughout the country in 1982 increased by 18.78 million yuan over the preceding year. 2) A new system of integrating democratic management and the system of responsibility in business was set up. The various pilot counties all convened congresses of commune members with the basic-level cooperatives as the units. The congress was the highest organ of power of the basic-level cooperatives. The election system was implemented in the appointment of cadres. The system of contract workers

was implemented in the employment of new staff and workers. Those who had their households in the rural areas would not become nonagricultural households, and would not consume commodity grain. 3) A joint organization of basic-level cooperatives--supply and marketing cooperatives at county level--was set up. A definite proportion of the money paid for shares by the members of the basic-level cooperatives would be invested in the supply and marketing cooperatives at county level, and bonuses would be obtained from these cooperatives according to the investment. By the end of 1982, 270 counties had already set up joint cooperatives, which constituted 44 percent of the pilot counties. 4) A multilevel and diversified joint agricultural, industrial and commercial operation was carried out. Most of the supply and marketing cooperatives which were the pilot points for carrying out reform had set up all forms of economic alliances with the peasants, which changed the simple relationship of buying and selling among the peasants into a relationship of joint operation, thereby supporting the peasants in developing diversified economy.

3. Pilot Projects for Reforming the System of Management of the State-run Retail Enterprises

In 1982, we were still at a pilot stage of experience probing. In launching the pilot project, the various localities put forth many methods of reform of an exploratory nature: 1) In terms of the relationship between the enterprise and the state, there were primarily the following five forms: a) The substitution of tax payment for profit delivery; the implementation of the method of independent accounting by the enterprises, taxation by the state and assumption of profit and loss by the enterprise itself. In light of the different characteristics of the various enterprises, there were four forms of substitution of tax payment for profit delivery: The implementation of the eight-grade surplus progressive tax on small-scale enterprises; the implementation of the six-grade progressive tax on the large-scale and medium-sized enterprises; the implementation of proportional tax on some food service trades; and the adoption of the method of coexistence of tax payment and profit delivery for some enterprises, which meant first levying income taxes according to proportion, then delivering to the state a portion of the profit from the surplus profit according to the profit-sharing ratio. b) Retention according to the base figures of the profit and profit-sharing according to the surplus profit. c) Profit contracting and profit-sharing of the surplus profit. d) Profit-sharing of the total amount of profit. e) Contracting for loss. 2) In terms of the relationship between the enterprise and the staff members and workers, there were also five methods: a) The system of responsibility at one's work post. In light of the tasks, demands and workload of each link in work, the enterprise would determine the responsibility of the work post and the details of reward and punishment; in light of the work post, the extent of responsibility, the intensity of labor, the technological ability and the work attitude, it would determine the bottom grade of each individual; in light of the manner, good or poor, in which a task was completed, it would add or deduct from the bottom grade; finally, in light of the grades one got, bonuses would be calculated according to the different grades. b) Different levels of accounting and fixed quota management. First, we would determine the separate fixed quota values of the various targets, such as profit, value of sales, labor productivity for all personnel, the level of expenses, the frequency of

turnover of funds, the damage of commodities, the common difference between the long-term funds and short-term funds, the service quality and the service atttitude. Then, according to the separate values scored, bonuses for the group working at the counter would be drawn. Then the group would calculate individual bonuses in light of the trades which each individual staff or worker scored. c) Fixed wages plus floating percentage wages. The original wage payment was divided into two parts, one being the fixed wages, which was lower than the original basic wages; and the other part being a portion of the floating wage fund. The other portion of the floating wage would be drawn from the above-quota profit in accordance with the enterprise's business condition, good or poor. d) Piece rate wage. e) The implementation of collective or individual contracting. In collective contracting, we generally implemented "independent accounting, collective business management, fixed quota delivery to the state, and assumption of one's own profits or losses." After the staff and workers took over the contracting, the nature of the enterprise did not change and the status of the staff and workers of the state did not change. The length of service would be computed continuously and the terms of retirement would not change.

Practice for more than a year proved that the "substitution of tax payment for profit delivery was a better form of handling the relationship between the state and the enterprise in respect to profit distribution. As for handling the relationship of distribution between the enterprise and the staff members and workers, due to the large number of commercial trades and undertakings and the complexity of professions, the scale differed. We should take into consideration the concrete characteristics of the various enterprises and even the different types of work and different links in an enterprise and adopt different forms of the system of responsibility in business, and should not apply one rule for all.

II. We Relaxed Our Polices and Vitalized Circulation

In 1982, in accordance with the principle of relaxing policies and vitalizing the economy, the commercial departments continued to readjust certain commercial policies. The phenomenon in which the state-run commerce was in sole operation with too much centralization and inflexibility was basically changed. Our country had preliminarily formed a system of open commodity circulation in which the state-run commerce was the leading body and in which diversified economic components, multiple channels of circulation and diversified business modes coexisted.

1. The Various Economic Components and the Various Channels Developed in an All-round Manner

The employed personnel, network outlets and volume of retail sales in commerce of the various economic components for 1982 are shown in Tables 1 and 2.

Table 1.

	Number of organizations		Number of personnel	
	1982	Compared to 1981 ± percent	1982	Compared to 1981 ± percent
I. Commerce	297.0	24.6	1,393.5	10.1
A. System of ownership by all people	87.3	4.6	926.4	4.4
1. Enterprise management organization	8.2	2.5	190.8	6.5
2. Enterprise business organization	76.9	5.1	678.1	4.2
Of this: organizations of retail sales	54.0	5.5	423.8	4.2
B. System of collective ownership	37.4	17.2	259.5	15.1
1. Enterprise management organization	0.9	12.5	5.0	21.9
2. Enterprise business organization	36.5	16.9	254.5	14.9
Of this: Organizations of retail sales	35.5	17.9	241.4	17.3
C. Joint operations	0.03	50.0	0.5	25.0
D. Procurement and sales agents	38.5	-3.5	51.2	-5.4
E. Individuals	133.8	61.2	155.9	58.3
II. Catering Trade	62.8	30.0	238.8	13.0
A. System of ownership by all people	5.4	0.0	70.6	-2.5
B. System of collective ownership	12.5	14.7	103.9	9.7
C. Joint operation	0.02	100.0	0.4	300.0
D. Individuals	44.9	43.0	63.9	44.9
III. Service Trades	59.7	36.3	182.4	23.0
A. System of ownership by all people	4.8	2.1	50.7	4.8
B. System of collective ownership	12.0	27.7	80.3	24.3
C. Joint operation	0.02	100.0	0.3	200.0
D. Individuals	42.9	44.4	51.2	45.0

Table 2.

Economic components	Volume of retail sales (100 million yuan)	Growth compared to last year (percent)	Change in ratio 1981	Change in ratio 1982
All people	1,968.6	4.7	80.0	76.6
Of this: Sales by industry itself	216.8	11.0		
Collective	414.4	21.3	14.5	16.1
Individual	74.6	99.5	1.6	2.9
Sales by peasants to urban nonagricultural population	110.8	23.9	3.8	4.3

From Tables 1 and 2, we can see that: 1) In 1982, the number of personnel, network outlets and volume of sales of the various economic components were higher than the preceding year. 2) The speed of growth of individual commerce far surpassed that of collective enterprises. By the same token, the speed of growth of collective commerce far surpassed that of the units under the system of ownership by all people. 3) While the proportion of the number of personnel, network outlets and volume of sales of social commodities of the units under the system of ownership by all people dropped, the proportion of their economic components rose.

2. The Modes of Diversified Business Modes Supplemented One Another

In the wholesales link, in addition to persevering in the four forms of procurement and sales, namely, centralized procurement, planned procurement, placement of order for goods, and procurement by choice, two other forms of procurement and sales were newly added, namely, agents for wholesale and sales, and joint operation and sales by industrial and commercial units. The scope of agents for wholesale and sales included that portion of products which are permitted to be sold by the industrial units themselves according to the concerned policies stipulated by the state. Before being sold, the commodities to be given to the agents for wholesale and sales would still be under the units which issued the commission. After the goods are sold and after payments are settled, the commission units would draw a definite amount of service charges. The launching of the profession of agents for wholesale and sales played a fine role in supplementing the inadequacy of the industrial units in handling their own sales and in expanding the sales of the products that are in abundant supply. At the same time, it also prevented the occurrence of various types of malpractice in the past when the commercial departments ran the whole show. Thus, faster development ensued. The fundamental spirit of the joint operation and sales by industrial and commercial units was to "enjoy profits and shoulder risks together." This closely integrated the industrial and commercial sectors, and enabled them to work with one heart to raise quality, increase designs and colors and expand sales. There were many concrete forms of joint operation,

namely, joint operation of individual products or joint operation of a variety of products in a comprehensive manner; some joint operations were limited to the sales of products, while others included production. The expenses to be shouldered and the profits to be distributed in joint operation differed in accordance with the scope of the joint operation and the degree of closeness in cooperation. Joint operation and sales is a form of procurement and sales that is at a stage of development. Therefore, its experience still awaits further summation. In light of the present situation, the advantages of this form are: 1) It succeeds in avoiding many incidents of disputes between industrial and commercial units and creates a favorable situation for industry to concentrate its strength on organizing production and for commerce to concentrate its strength on opening up and expanding sales. 2) It can reduce the number of links and economize on expenses.

In retail sales, we launched the "payment of goods before delivery and collection of payments by installments." In August 1982, the Ministry of Commerce dispatched a notice asking for the implementation of the sales method of "payment of goods before delivery and collection of payments by installments" for the high-grade commodities that had higher prices and a larger stock. The sales targets were primarily the staff members and workers of government organs, organizations, factories and mines, army units and schools who had a fixed income. Statistics of the 23 large-scale and medium-sized cities of Beijing, Shanghai, Tianjin and Wuhan showed that, between September and November of 1982, using the above method, 29,400 television sets, 31,400 radios and tape recorders, 2,429 washing machines and some 300 refrigerators were sold. Within the commercial system itself, many flexible business measures, such as joint operation among commercial units, transfer of goods in reserve over to sales agents, and settlement of accounts after the purchase of goods were adopted. This enabled some basic-level shops, supply and marketing cooperatives and other collective commercial units to expand their trades and increase income without increasing the burden of funds. The commercial enterprises dispelled their worries, actively brought in goods, increased designs, colors and varieties and sold a large number of stockpiled commodities.

3. We Readjusted the Policy of Procuring and Selling Agricultural and Sideline Products

In 1982, at the National Conference on Commercial Work, a decision was made to continuously readjust and reform the policy of procuring and selling agricultural sideline products.

We appropriately loosened our policy on the transportation for sales of agricultural and sideline products. While giving full play to the role of the primary channel of the supply and marketing cooperatives, we actively developed other collective and individual transportation channels. We permitted multichannel transportation of third-category agricultural and sideline products as well as the first- and second-category products (with the exception of grain and cotton) after the fulfillment of the state's procurement plans. As long as we abide by the state policies and decrees and obey market control, we can abolish unnecessary restrictions on the commodities that were permitted to be transported for sales. We can handle them through retail sales or wholesale.

We can send them to the cities, or out of counties and provinces without restriction by administrative divisions or distance.

We implemented negotiated procurement and sales of the third-category agricultural and sideline products as well as the first- and second-category agricultural and sideline products which were put on the market after the unified procurement and assigned procurement tasks were fulfilled, and permitted the rise and fall of prices. While persevering in fulfilling their unified procurement and assigned procurement tasks, the state-run commerce and basic-level supply and marketing cooperatives must actively launch negotiated procurement and sales and participate in market regulation. Grain has an important bearing. Xuxian Prefecture in Anhui was selected as a pilot point to carry out negotiated procurement and sales by the supply and marketing cooperatives, while the task of negotiated procurement and sales in other localities was still under the unified management of the grain departments.

As regards some agricultural and sideline products, we gradually changed from the method of procuring beyond the regular quotas at higher prices calculated from the existing assessed base figure of procurement to the method of procuring one portion at regular prices while procuring the rest at higher prices according to a fixed proportion. This was implemented on the products one by one. Between January and November 1982, the State Council issued documents on two occasions deciding that, as of the summer of 1983, the method of separately using regular prices and higher prices according to proportion in the procurement of oilbearing crops would be used.

As regards the important agricultural and sideline products that are related to the national economy and the people's livelihood, we continued to persevere in the policy of unified procurement and assigned procurement. But the scope of assigned procurement must be reduced gradually. A preliminary decision was made to reduce the existing 46 types to 18 types.

III. A Rare Excellent Situation on the Market Appeared Since the Nation's Founding

1. The Development of Industrial and Agricultural Production and the Procurement of Commodities Steadily Grew

In 1982, the gross value of the commodities procured by commerce under the system of ownership by all people was 262.25 billion yuan, 6.2 percent over the preceding year. The gross value of the agricultural and sideline products procured by state-run commerce was 85.56 billion yuan, 11.9 percent over the preceding year. Taking out the factor of the rise in the procurement prices, the actual increase was 9.5 percent. The system under the Ministry of Commerce was responsible for procuring 44 major agricultural and sideline products, and fulfilled or overfulfilled the procurement plans for 33 of them, among which 14 major products such as grain, oilbearing crops, cotton, short cotton velvet, tea leaves, ramie, sheep skin, feathers, tangerines, dates, chrysanthemum, edible fungus and hot pickled mustard tuber scored the highest level in history in procurement. The value of procurement of live hogs, fresh eggs, poultry,

honey, mao bamboo and palm flakes also increased to varying degrees. The value of procurement of a few varieties of products, such as beef cattle, lambs, jute and yellow jute, hemp, raw lacquer and apples dropped compared to last year.

The gross value of industrial products procured by the commercial departments at home was 139.32 billion yuan, 3.4 percent over the preceding year. The characteristics of the procurement of industrial products were:

First, the procurement of the means of production increased and the procurement of the means of consumption decreased. The sum of procurement of the means of production was 43.54 billion yuan, 14.2 percent over the preceding year. Of this, the agricultural means of production constituted 21.74 billion yuan, up 9.9 percent; the sum of procurement of the means of livelihood was 95.78 billion yuan, 0.9 percent less than the preceding year. In the agricultural means of production, the amount of procurement of chemical fertilizers increased 10.4 percent, farm chemicals 4.1 percent, walking tractors 51.6 percent and power-driven machines for farm use 20.2 percent.

Second, the procurement of commodities such as food, articles of daily use and fuel for burning increased, while the procurement of clothing commodities decreased. The value of procurement of food commodities was 26.08 billion yuan, 8.5 percent over the preceding year. The procurement of such major varieties as edible sugar, rolled tobacco, powdered milk, canned food and beer increased. The value of procurement of commodities for daily use was 33.69 billion yuan, 10.4 percent over the preceding year. The procurement of medium- and high-grade durable consumer products which the consumers love increased by a wide margin, the amount of procurement of sewing machines increased 23.8 percent over the preceding year, while wristwatches increased by 35.2 percent, bicycles by 35.7 percent, television sets by 32.7 percent, tape recorders by 100 percent, cameras by 12 percent, washing machines by 90 percent, and electric meters by 46.6 percent. Other major daily necessities, such as matches, laundry detergent, thermos flasks, toothpaste, flashlights and lead pencils increased from 7 to 38 percent over the preceding year. Due to limited production, the procurement of transistor radios dropped 57.8 percent compared to the preceding year, while all-rubber shoes dropped by 30.7 percent. The value of procurement of clothing commodities was 32.39 billion yuan, 16.6 percent lower than the preceding year. Of this, the procurement of mixed cotton and synthetic fiber cloth, synthetic fiber cloth and polyamide fiber stockings dropped by a relatively wide margin. This was because, as of March 1982, the State Council adopted restriction measures over these products. The value of procurement of fuel-burning commodities was 3.62 billion yuan, 11.4 percent over the preceding year. Of this, the procurement of coal was 127 million tons, 11.6 percent over the preceding year; while kerosene was 1,248,000 tons, 1.1 percent over the preceding year. Due to a shortage of goods, the procurement of diesel oil dropped slightly.

Because of the difference in the increase and decrease in the procurement of the various categories of industrial consumer products, changes also took place in terms of proportion. The proportion of food commodities went from 24.8 percent in 1981 to 27.2 percent in 1982. Clothing commodities went from 40.2

percent to 33.8 percent. Commodities for daily use went from 31.6 percent to 35.2 percent. Fuel-burning commodities went from 3.4 percent to 3.8 percent.

Third, the sum of commodities procurement under planned procurement and procurement by placement of orders increased 9.5 percent and 8.7 percent, respectively over the preceding year. The sum of commodities under unified procurement and procurement by choice decreased 2.3 percent and 1.8 percent, respectively compared to the preceding year.

2. Abundant Supply of Commodities and Prosperity on the Market

In 1982, the volume of retail sales of social commodities in our country was 257 billion yuan, 9.4 percent over the preceding year. The distribution of the total value of retail sales of social commodities is shown in Table 3.

Table 3.

Unit: 100 million yuan

Items	1982	1981	Percent of 1982 compared to 1981
Total value of retail sales of social commodities	2,570	2,350	109.4
I. Classification by target and use			
A. Consumer products	2,181.5	2,002.5	108.9
1. Sold to residents	1,956.1	1,798.5	108.8
2. Sold to social organizations	225.4	204	110.5
B. Agricultural means of production	388.5	347.5	111.8
II. Classification by urban and rural areas			
A. Cities and towns	1,090	1,026	106.2
1. Sold to residents	892.6	848	105.3
2. Sold to social organizations	197.4	178	110.9
B. Rural areas	1,480	1,324	111.8
1. Consumer items	1,091.5	976.5	111.8
a) Sold to residents	1,063.5	950.5	111.9
b) Sold to social organizations	28	26	107.7
2. Agricultural means of production	388.5	347.5	111.8
III. Classification by trades			
A. Commerce	2,068.1	1,915.4	108.0
B. Catering trade	98.4	87.6	112.3
C. Industry	216.8	195.4	111.0
D. Other trades	75.9	62.2	122.0
E. Retail sales by peasants to nonagricultural residents	110.8	89	124.5

(1) The speed of growth of the sales of agricultural means of production was fast. The volume of sales of agricultural means of production amounted to 38.85 billion yuan, 11.8 percent over the preceding year. The margin of growth far surpassed that of the preceding 2 years (a 6.7 percent growth in 1980 and an 0.4 percent growth in 1981). The margin of growth of the sales of the primary agricultural means of production was as follows: 16.8 percent for chemical fertilizer, 5 percent for farm chemicals, 48.9 percent for pesticide machines, 0.7 percent for medium and small farm tools, 43 percent for walking tractors, 84 percent for power-driven machines for animal husbandry, 11 percent for power-driven machines for farm use, 22 percent for trucks for farm use, and 13 percent for water pumps for farm use.

(2) The sales of materials for repairing and building rural housing increased by a wide margin. In 1982, the total value of all kinds of construction materials for repairing, expanding and building houses which the state provided for the peasants increased by 18.8 percent over the preceding year, with an average purchase of 22 yuan of construction materials by every peasant household. Compared to 1981, the major construction materials supplied to the peasants were as follows: Timber was up 18 percent, cement 20 percent, glass 25 percent, steel products 16 percent, prefabricated components 38 percent. The quantity of hardware, indoor electrical materials and paint which the system under the Ministry of Commerce was responsible for supplying also increased on a general scale.

(3) The volume of retail sales of means of subsistence also increased by a relatively wide margin. In 1982, the volume of retail sales of consumer items was 218.2 billion yuan, 8.9 percent over the preceding year. Of this, the retail sales to residents amounted to 195.6 billion yuan, up 8.8 percent, and the retail sales to society amounted to 22.5 billion yuan, up 10.5 percent. The changes in the situation of the retail sales of all categories of consumer items were as follows: There was a rich variety of food commodities, improvement in supply, prosperity in sales, and an increase of 12.8 percent in the volume of retail sales over the preceding year. The sales of grain were up 10.2 percent over the preceding year, while edible vegetable oil was up 28.4 percent, pork 6 percent, fresh eggs 9.9 percent, aquatic products 13.1 percent, salt 1.5 percent, edible sugar 8.9 percent, rolled tobacco 0.5 percent and wine 20.4 percent. The supply of vegetables was better than in previous years. In 1982, the supply of vegetables to the 35 large and medium-sized cities throughout the country was 13 percent over the preceding year, with an average of 0.89 jin per person per day. The designs, colors and varieties of clothing commodities increased, and the quality was raised. However, they were still unable to meet the needs of the broad masses in terms of new varieties, new styles and new designs and colors. Sales volume was up 0.6 percent compared to the preceding year. The various localities reported that in 1982, the changes in the style of clothing commodities were fast and the period during which a style was popular was short. The various new-style down jackets, woolen clothes, leather jackets and fur clothing as well as all styles of children's clothing were extremely popular and the sales volume doubled and redoubled. The sales volume of knit underwear and some new varieties made from mixed cotton and synthetic fiber cloth also increased to varying degrees. Inversely, the volume of retail sales of cotton cloth, synthetic fiber cloth, woolen fabric and silk of inferior quality, high price, outdated designs and colors and dull

variety, separately dropped between 7 to 14 percent. The sales of all kinds of shoes and socks dropped between 2 to 42 percent.

The volume of retail sales for commodities for daily use was 7.2 percent over the preceding year. The sales of general articles of daily use was stable and the sales of high-grade and durable consumer items steadily increased by a wide margin. Compared to the preceding year, the sales of bicycles was up 39.9 percent, sewing machines 23 percent, wristwatches 23.7 percent, television sets 18.3 percent, tape recorders 65.8 percent, cameras 17.5 percent, electric fans 23.95 percent, while the sales volume of laundry detergent, soap, thermos flasks and lightbulbs among the daily necessities also increased. The sales volume of matches dropped by 0.4 percent and transistor radios by 0.3 percent. The sales volume of sporting goods, recreational goods, stationery and paper also increased markedly. In 1982, the value of sales of books throughout the country was 1.88 billion yuan, 10.6 percent over the preceding year and the highest sales volume since the nation's founding.

In 1982, the supply of commodities amounted to 277.2 billion yuan, 10.7 percent over the preceding year. The total volume of society's purchasing power amounted to 276.85 billion yuan, up 9.1 percent. The speed of growth and the absolute volume of the supply of commodities surpassed the speed of growth and the absolute volume of society's purchasing power, thereby changing the prolonged situation in which there was a shortage in the supply of commodities. Incomplete statistics showed that, in 1978, there were 73 major commodities which were supplied in limited quantity through the use of certificates and vouchers throughout the country. By the end of 1982, 64 of them had successively become open supply. Of the nine commodities which were supplied in limited quantity, in addition to the fixed quantity of supply, a portion under negotiated price could be purchased by choice freely. Since basic livelihood was guaranteed and the supply of other commodities was abundant, the consumers want from worrying about not being able to purchase commodities in the past to saving money and awaiting purchase.

IV. Several Problems Which Deserve Attention Under the Excellent Situation

1. The Speed of Growth of the Volume of Procurement of Industrial Products Decreased Compared to the Preceding 2 Years

In 1982, the speed of growth of the volume of procurement of industrial products was 3.4 percent, which registered a drop compared to the 8.3 percent growth in 1980 and the 7.7 percent growth in 1981. There was a normal side to the drop. For instance, the State Council limited the production of some unmarketable and stockpiled commodities, resulting in the procurement of 4.45 billion yuan less of industrial products by the commercial departments at home and a drop of 3.3 percent in the speed of growth of the volume of procurement. It implemented multi-channel circulation, resulting in the rise by a wide margin of the sales directly by the industrial units themselves and the procurement by the system of collective ownership of industrial products, and affecting the procurement by the commercial units. After the change of the method of the monopoly of sales, the commercial departments procured fewer commodities with unmarketable designs, colors and varieties and with inferior

quality and high price. These circumstances constituted the primary reason as to why the speed of growth of the volume of procurement of industrial products dropped. However, it was also a fact that some commercial enterprises embodied the ideological tendency of fearing stockpiling and fearing being out of stock in their business thinking. In order to lighten their burden in interests and speed up the turnover of funds, they preferred to bring in fewer goods, and also did not dare procure those commodities which they should procure. Some shops regarded the factories as their warehouse, and only brought in goods when they needed them, and were even reluctant to hold some seasonal commodities in stock.

2. A Phenomenon Appeared in Which Some Commodities With Outmoded Styles, Monotonous Coloring and Inferior Quality Could Not Be Sold in the Shops and Were Stockpiled in the Warehouses

By the end of 1982, the state-run industrial enterprises had 18 billion yuan of finished consumer products in reserve, roughly 30 percent over that of the end of the preceding year. Although the margin of growth of the reserves held by the commercial departments was smaller than that of industry, the unmarketable commodities in stock still amounted to 17.5 billion yuan, 20.7 percent over the preceding year. This indicated that the structure of production of industrial products failed to catch up with the changes of the structure of consumption and should continue to be readjusted.

3. The Expenses of the State-run Commerce Went Up While Profits Dropped

In 1982, the rate of expenditure in commodity circulation of the system under the former Ministry of Commerce went from 7.8 percent of the preceding year to 9 percent. The period of turnover of funds was lengthened by 15 days, and the profit realized was reduced by 34.2 percent compared to the preceding year. The rate of expenditure in commodity circulation of the system of supply and marketing cooperatives went from 9.9 percent of the preceding year to 10.5 percent. The period of turnover of funds was lengthened by 5 days and the profit realized was reduced by 34.2 percent compared to the preceding year. The rate of expenditure in commodity circulation of the system of supply and marketing cooperatives went from 9.9 percent of the preceding year to 10.5 percent. The period of turnover of funds was lengthened by 5 days and the profit realized was reduced by 14.2 percent compared to the preceding year. There were primarily three reasons: 1) Inadequate business management; 2) the raising of interest in bank loans; and 3) the lowering of the retail prices of some commodities.

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[Text] In 1982, some major capitalist countries and regions in the world suffered from an economic recession, the international market was in recession, commodity prices were dropping, the volume of world trade decreased and the policy of protection in trade was rigorous. Faced with the above situation, our country's foreign trade still made new developments under the guidance of our policy of opening up to the outside world and our principle of readjusting the national economy. The business statistics of the Ministry of Foreign Economic Relations and Trade showed that the total volume of import-export trade amounted to $38.94 billion, the volume of export being $21.82 billion, the volume of import $17.12 billion, and the foreign trade balance $4.7 billion.

Exports Continued To Grow Steadily

In 1982, exports throughout the country totaled $21.82 billion, 4.4 percent over 1981. Taking out the factor of lowering export commodity prices, the growth of the volume of export trade was 8.6 percent.

In the export commodities, the proportion of heavy industrial products (including petroleum and petroleum products and mineral products) in the gross value of export went from 43.3 percent in 1981 to 47.5 percent, which continued to surpass the proportion of light and textile industrial products and agricultural sideline products, and which still occupied first place. Among these products, the electromechanical products (categorized according to the international trade commodity criteria) increased 4.2 percent, and the proportion in the gross volume of export went from 8.91 percent of the preceding year to 8.97 percent. The proportion of the export of light and textile industrial products dropped slightly compared to the preceding year, from 39 percent in 1981 to 37.6 percent. However, the export of the major commodities, such as cotton textile products, clothing and silk cloth, increased to varying degrees over the preceding year. The proportion of the export of agricultural and sideline products continued to drop, from 17.6 percent of the preceding year to 14.9 percent, involving primarily edible oil products, Chinese medicinal herbs, bristles and cashmere. However, increase was still

registered with traditional food products and native and special products for export, such as fresh and frozen pork, fresh and frozen beef, live poultry, frozen chicken, vegetables, honey and tea.

In 1982, there were many reasons why there were new developments in our country's export trade, the primary reasons being: 1) We further readjusted our national economy and our industrial and agricultural production developed more extensively. In 1982, the gross value of industrial and agricultural output throughout the country was 8.7 percent higher than the preceding year. Agriculture scored a bumper harvest, light industry continued to make new developments and heavy industrial production picked up on an extensive scale. All this provided a solid material basis for expanding export. In particular, because of the increase in the designs, colors and varieties as well as the improvement in quality of the industrial and agricultural products, we provided even more marketable commodities for export. 2) The building of export commodity bases played a more and more prominent role in expanding exports. By the end of 1982, 24 comprehensive bases for the production of export commodities, 90 bases for the production of individual agricultural and sideline, native or special products as export commodities and 94 special-purpose factories for the production of industrial products for export were set up throughout the country. The sources of export goods provided by these bases and special-purpose factories amounted to nearly 10 billion yuan, roughly 22 percent of the gross volume of foreign trade procurements of that year. Many products had already become "easily saleable" commodities, and 32 of the products, including rabbit meat, rabbit fur, goat slab, peppermint oil, peppermint ball, and black fungus, occupied first place in the world in export volume. There were also a number of brand-name products for export that enjoyed a relatively high reputation on the international market. 3) We adopted such flexible trade methods as entrepot trade and commodity-exchange trades, thereby vitalizing foreign trade businesses and promoting the development of export trade to a certain degree. 4) We further trial-implemented the reform of the foreign trade system, mobilized the enthusiasm of the various localities and departments to expand external trade, and accelerated the development of our country's export trade. 5) In foreign trade transportation, we strengthened our work in ocean shipping. In coordination with the communications departments, we increased the number of lines and their linkup with harbors, brought into full play the role of the local ships, and vigorously launched the various kinds of transportation professions such as containerized ocean shipping, joint containerized transportation by international railroad, vehicular containers and air transportation. The volume of import-export goods transportation fulfilled for the entire year was 92.06 million tons, 8.3 percent over the year's plan, thereby raising the export fulfillment rate. In 1982, the monthly average performance rate was 63.8 percent, 5.7 percent higher than 1981, and a relatively higher export contract fulfillment rate in recent years.

A Relatively Big Change in the Structure of Import Commodities

In 1982, we completed $17.12 billion of import, 12.8 percent less than the preceding year. However, taking out the factor of the lowering of import commodity prices and calculating from the volume of import, we still maintained

the level of 1981. We overfulfilled the plans for the major import commodities needed in industrial and agricultural production and construction and by the market. These major commodities were: 11 million tons of chemical fertilizer, some 16 million tons of grain, some 4.8 million cubic meters of timber, some 140,000 tons of copper, some 900,000 tons of aluminum, some $1.7 billion of new technologies and complete sets of facilities, $1.2 billion of chemical industrial raw materials, some 190,000 tons of rubber, 470,000 tons of cotton and some 2 million tons of sugar.

In 1982, we continued to reduce the import of machinery and equipment, while increasing the import of raw materials and consumer products of everyday life. In the gross volume of imports, the proportion of new technologies, complete sets of facilities and electromechanical products dropped from 26.2 percent of the preceding year to 17.7 percent. Inversely, the proportion of raw materials for industrial and agricultural production went from 46.6 percent of the preceding year to 52.5 percent, while the proportion of consumer products of everyday life went from 27.2 percent of the preceding year to 29.8 percent. It should be pointed out that this structure of import commodities is transitional in nature. From a long term point of view, we must gradually raise the proportion of the means of production in order to meet the needs of the four modernizations.

There Were Changes in the Volume of Trade With Some Countries and Regions and Relatively Great Development in Trade With the Third World

In 1982, the gross volume of import-export trade of our country with several major countries and regions was as follows: $8.6 billion with Japan, $6.36 billion with Hong Kong and Macao, and $5.33 billion with the United States. Although all of the above volumes of trade were over $5 billion, they were lower than the preceding year. With Japan, because of the reduction of the import of complete sets of facilities and other facilities, the volume of imports went from $5.38 billion in 1981 to $3.74 billion, while the volume of exports went from $4.59 billion of the preceding year to $4.86 billion, changing from an adverse balance of trade of $790 million of the preceding year to a favorable balance of trade of $1.12 billion. With Hong Kong and Macao, the value of export was $5.24 billion, nearly 1 percent less than the preceding year. Taking out the factor of price and foreign exchange rate changes, the actual volume of export still showed slight increase. Since Japan's exports to Hong Kong was also reduced, the proportion of imports to Hong Kong of our goods was raised. Statistics of the British Customs in Hong Kong showed that our goods constituted 23 percent of Hong Kong's imports, and continued to occupy first place over that of Japan (22 percent). The volume of import increased from $1 billion in 1981 to $1.12 billion, with a favorable balance of trade of $4.12 billion. With the United States, exports went from $1.5 billion of the preceding year to $1.6 billion, while imports went from $4.38 billion of the preceding year to $3.7 billion, with a drop in the adverse balance of trade from $2.88 billion to $2.1 billion.

There was increase in the volume of import-export trade in 1982 for the following: the countries of the EEC, the Soviet Union, Eastern Europe, in particular

the Third World countries, where there was an even wider margin of increase, with an increase of 21.1 percent over the preceding year. The volume of trade with the five countries of the Eastern Bloc was up 10 percent compared to the preceding year.

We Strengthened Our Management Over Foreign Trade and Overcame Blindness in Export

We actively implemented the principle of "unified planning, unified policies and alliance in dealing with foreigners," and strengthened our management over foreign trade. At present, we have successively set up control over import-export permits, control over the volume distribution of export textile products, control over the system of preferential treatment, control over trademarks for export commodities, inspection, approval and control over import-export enterprises, and inspection, approval and control over the permanent organs of foreign businessmen stationed in China. By the end of 1982, we issued business permits to 87 kinds (categories) of commodities, managed in a coordinated manner even more commodities through the organization of specialized general companies, and began to change the state of confusion of competitive sales among one another. At the 1982 Fall Trade Fair in Guangzhou, the various trade exchange delegations were basically able to join with the various units that were doing business with the same category or type of commodities into commodity departments (groups), carry out unified transactions with the outside world, and scored relatively good results to the greater satisfaction of the personnel of the trade circle both at home and abroad.

Some problems still existed in foreign trade in 1982. They were primarily manifested in the imbalance in procurement and sales, in procurement over sales, in the reduction of export transactions, in the increase in cost of foreign exchange in export, in the rise in the level of expenses, and in the slow turnover of funds. We have already adopted measures in an effort to improve these problems.

In 1983, our country's foreign trade will continue to face a depressed international market. We must emphasize raising product quality and strengthening our competitive ability with the outside world. We must meet the needs of the buyer's market and strengthen sales promotion. We must adopt flexible and diversified trade methods to open up new markets for export commodities. We must also expand imports in a planned manner in order to guarantee the needs at home, and enable import-export trade to develop actively and steadily.

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CHINA'S CAPITAL CONSTRUCTION IN 1982

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[Article by Kang Zhixin [1660 1807 2450]]

[Text] China's capital construction in 1982 was carried out on the basis of 3 years of readjustment of the national economy and the beginning of a turn for the better in the situation. In light of the strategic goal of economic construction determined at the 12th CPC Congress and the specific arrangements in the Sixth 5-Year Plan, we further clarified the focus of capital construction, fulfilled the various construction tasks in a better manner, continued to carry out a series of reforms in the system of management in capital construction and set up some new rules and regulations. At the same time, we strengthened the building of the survey, design and construction ranks in capital construction.

In 1982, the gross value of investment in the capital construction that was actually fulfilled by the units under the system of ownership by all people throughout the country amounted to 55.5 billion yuan, 11.2 billion yuan and 25.4 percent over the preceding year. This was equivalent to the 1980 level, which was the highest in the fulfillment of the investment since the nation's founding. In the beginning of the year, in order to further consolidate the achievements made in the preceding year in reducing the scale of capital construction and to realize a basic balance between revenue and expenditure in finance, credit and foreign exchange and in the supply of materials, the state made preliminary arrangements for a plan to invest 38 billion yuan in capital construction. With the relatively rapid development of industrial and agricultural production and the reform of the financial system in the same year, the funds which the departments, localities and enterprises themselves possessed gradually increased. In light of the comprehensive balance between manpower and financial and material resources, the state readjusted the plan at the beginning of the year, and arranged for a plan to invest 44.5 billion yuan for that year (primarily from the increase of 5.8 billion yuan in the plan from all types of self-raised funds), thereby basically breaking even with the investment that was fulfilled in reality in the preceding year. The result of the implementation at the end of the year surpassed the readjusted plan by 11 billion yuan. Of this, the self-raised investment in capital construction surpassed the plan by 5.2 billion yuan and the domestic loans surpassed the plan by 3.7 billion yuan. This situation showed that the scale of

capital construction in our country for 1982 once again manifested a tendency toward inflation that deserved our serious attention. (For details, see Table 1)

Table 1. The Situation of the Fulfillment of Investment in 1982

Unit: 100 million yuan

	Annual plan	Actual completion	Percent over plan	Increase or decrease compared to 1981	
				Absolute figure	Percent
Grand total throughout the country	445.00	555.53	24.8	112.62	25.4
State investment	226.32	232.48	2.7	9.86	4.4
Loans at home	35.43	72.87	105.6	28.27	63.4
Foreign capital utilized	42.56	57.41	34.8	22.59	64.9
Of this, the state monopoly of loans and repayment		44.19		15.25	52.7
Self-raised and other funds	140.69	192.77	37.0	51.90	36.8

Note: The investment of 27,667,000,000 yuan within the state budget = state investment of 23,248,000,000 yuan + 4,419,000,000 yuan of state monopoly of loans and repayment of loans from foreign funds.

In 1982, through the effort of the broad masses of staff members and workers of the survey, design, construction and building units, we fulfilled the various capital construction tasks in a better manner. This year, we completed 116 large-scale and medium-sized construction projects, 37 more than the preceding year. In recent years, this was a year when more projects entered production. At the same time, we also completed 145 individual projects of the large-scale and medium-sized construction projects that entered production. The newly-increased fixed assets from the capital construction throughout the country was 41.31 billion yuan. The housing area completed totaled 143.57 million square meters, of which some 84 million square meters were housing quarters. Of the 27 major products with newly-increased production capacity listed in the state plans, 20 either fulfilled or overfulfilled the plans. In particular, the delivery of projects from the energy, communications and construction materials departments brought about a greater increase in production capacity, and played an active role in strengthening the weak links in the national economy and in readjusting the entire economic structure as well as the industrial structure. (For details, see Table 2)

In 1982, some new situations appeared in the various proportional relationships in the investment in capital construction. In terms of the investment departments, although the absolute amount of investment in agriculture was higher than the preceding year, its proportion in the gross investment dropped

Table 2. The Situation of the Newly-Increased Production Capacity of the Major Products

Trade	Newly increased production capacity of the major products	Percent of the annual plan	Completed major projects that entered production
Coal	Extraction capacity 8.20 million tons	127.13	The Yima Mine in Henan, the Xingtai Mining District, the Songzao Mining District in Sichuan
Electricity	Generator capacity 2.94 kW	129.34	630,000 kW of the Wu Jiang Hydroelectric Power Station in Guizhou, the 3 generators of the Gezhou Dam, each with a capacity of 125,000 kW, the 350,000 kW No 1 generator of the power plant of the Baoshan Iron and Steel Company
Petroleum	Extraction capacity 3.17 million tons	52.8	
Communications	Harbor loading and unloading capacity 28,200 tons Highway 751 kilometers	109.1	The Beichang Harbor in Zhejiang 116 km of the Yangchuan and Taiyuan Highways
	Railroad electrification 116 km	29.1	8 multiple track projects of the Jinan-Qingdao, Lianyinggang-Lanzhou, Beijing-Baotou, and Shijiazhuang-Chengde lines
	Multiple tracks 258 km	100.78	
Construction materials	Cement 2.37 million tons	109.09	The Taiyuan, Pingdingshan, Xinjiang, and Anhui Baimashan Cement Factories
	Plate glass 1.2 million standard boxes		The Tongliao Glass Factory in Nei Monggol
Textile	Cotton textile 510,000 spindles	728.5	The Foshan Cotton Textile Mill in Guangdong and others

compared to the preceding year. Because of the rather rapid expansion of the scale of capital contruction, the demand on heavy industry increased, and the proportion of investment in the various trades and undertakings within industry changed correspondingly. The proportion of the raw materials industry and the processing industry, which dropped for several years in succession, began to pick up again. Light industry and textile industry, which for several years registered the widest margin of growth, basically maintained the level of investment of the preceding year. Although the investment in such energy industries as coal, electricity and petroleum increased by 1 billion yuan over the preceding year, the proportion of investment dropped from 20.6 percent to 18.3 percent. (For details, see Table 3)

Table 3. The Situation of the Fulfillment of Investment by National Economic Sectors

Department	Amount of investment completed (100 million yuan)		Proportion (percent)		(+)(-) percent of 1982 compared to 1981
	1981	1982	1981	1982	
Sum total throughout the country	442.91	555.53	100	100	+25.4
Agriculture, water conservancy & meteorology	29.21	34.12	6.6	6.1	+16.8
Industry	216.01	260.60	48.8	46.9	+20.6
Light industry	43.38	46.45	9.8	8.4	+ 7.1
Heavy industry	172.63	214.15	39	38.5	+24.1
Energy	91.24	101.38	20.6	18.3	+11.1
Construction industry & geological industry	11.71	13.26	2.6	2.4	+13.2
Transportation & telecommunications	40.47	57.21	9.1	10.3	+41.4
Commerce, catering & service trades & goods & materials	28.01	35.97	6.3	6.5	+28.4
Scientific research	9.34	9.96	2.1	1.8	+ 6.6
Culture, education & public health work	34.3	40.85	7.8	7.4	+19.1
Urban public works	31.86	42.22	7.2	7.6	+32.5
Others	42.02	61.34	9.5	11.0	+46

Note: The reason why the investment amounts in the various projects for 1981 were somewhat higher than the statistical figures for that year was primarily because the statistical specifications for 1982 were greater.

In terms of the structure of use of the investment, the investment used in productive construction was 30.3 billion yuan, 54.5 percent of the gross investment. The investment used in nonproductive construction was 25.2 billion

yuan, 45 percent over the preceding year, and its proportion of investment continued to rise from 41.2 percent of the preceding year to 45.5 percent, the highest since the nation's founding. Urban construction, which for many years had incurred relatively heavy debts, made new progress, with the amount of investment being 32.5 percent over the preceding year. This was a department that had a relatively wide margin of growth. Housing construction continued to develop. The amount of investment increased by 3.2 billion yuan over the preceding year, totaling 14.1 billion yuan. The housing area completed for the entire year increased by some 5.9 million square meters over the preceding year, the best in recent years in terms of the completion of housing construction. The living condition of a large number of urban residents, in particular some high- and intermediate-level intellectuals and staff members and workers of many enterprises and government organs, markedly improved. However, the development of nonproductive construction was still unbalanced. There was little increase in the investment in educational and scientific research facilities, and the proportion of investment in the two dropped from 5 percent and 2.1 percent of the preceding year to 4.5 percent and 1.8 percent, respectively. This failed to satisfy the daily growing needs of the people's cultural lives and the demand to strengthen such causes as scientific research.

In 1982, the capital construction front further implemented the principle of readjusting, restructuring, consolidating and improving the national economy, and made new progress in the following few aspects:

First, We Strengthened the Work at the Earlier Stage in Capital Construction. For many years, the capital construction front was long, investment was dispersed, management was in a state of confusion and the results of investment were poor. One basic factor was because we neglected the work at the earlier stage of the construction projects. After scoring initial results in the work of readjustment, our urgent task was to do a good job of the work at the earlier stage and conscientiously overcome the shortcomings of the "three simultaneous tasks" (simultaneous surveying, designing and engineering). In order to realize the goal of quadrupling the gross value of industrial and agricultural output by the end of this century which the 12th CPC Congress put forth, we must make arrangements for a number of major surveying and designing projects and must also urgently make advance preparations in doing a good job of the work at the earlier stage of construction. In 1982, the two major measures in strengthening the work at the earlier stage were: 1. Making the launching of proper feasibility study of the construction project as a legislative procedure in capital construction, and making the feasibility study of the construction project an important link in strengthening planned management. In February 1982, the State Planning Commission and the State Construction Commission jointly issued "Certain Regulations on Shortening the Time Frame of Construction and Raising the Results of Investment," stipulating that the policies concerning capital construction projects must be built on a scientific and reliable basis, and that documents for carrying out design tasks would not be granted to those construction projects that had not undergone feasibility study or thorough research. A preliminary design that was not approved would not be listed in the year's capital construction plan. Although effort from many aspects was still required to implement these

regulations, yet, as a new legislative procedure, these regulations aroused our attention and we began to implement them. The 50 key construction projects which were organized according to a rational time frame not only made full use of the investment and guaranteed the needs of the three major materials and other important goods and materials, but also strengthened the work at the earlier stage to varying degrees and scored relatively good results accordingly. Second, as of the latter half of 1982, we began to arrange in a planned manner a program for the work at the earlier stage of 279 key construction projects which were to be launched in the Seventh 5-Year Plan and Eighth 5-Year Plan. We also actively created the conditions for carrying out feasibility studies and economic and technological proofs on different projects by stages and in groups. For instance, we attached importance to and implemented the economic and technological proofs required by the large-scale construction project to send water from the south to the north.

Second, We Organized the State's Key Construction Projects According to a Rational Time Frame. In line with the principle of strengthening key construction projects in energy and communications, in early 1982, concerned departments selected from several hundred large-scale and medium-sized projects under construction 50 that were of important significance to the development of the national economy and that embodied better factors for construction. Then, they organized construction according to a rational time frame and gave priority guarantee to these projects with regards to financial and material resources. In this group of projects, the majority were from the energy, communications, construction materials and light and textile industrial sectors. The required investment was roughly over one-third of the gross investment in the large-scale and medium-sized projects under construction. In 1982, these key projects made relatively good progress. Roughly two-thirds of the projects fulfilled or overfulfilled the year's plan by a relatively wide margin. Some of the above projects were among those in recent years which fulfilled their plans in a better manner, made faster progress in construction and had higher construction quality. Practice proved that concentrating definite financial resources in guaranteeing the progress of construction of a number of key projects was an effective method which would play an active role in improving the weak links in the national economy in our country, namely, energy and communications. In particular, under the situation when the scale of construction is too large and there are too many projects, it is of even greater significance to appropriately concentrate our forces in order to guarantee that the state's key projects will be completed within a rational time frame and enter production and bring their efficiency into play without delay.

Third, We Actively Promoted the Economic System of Contracting Responsibility in the Construction Projects. In 1982, on the basis of summing up the pilot experiences of the last several years in the reform of the economic system of management in capital construction, and in light of the malpractices in the investment in construction of not shouldering economic responsibility, using money in an unlimited fashion and eating out of the "same big pot," we proposed and implemented the economic system of contracting responsibility in the construction projects with contracting of investment as the major content in the various localities and departments. This major reform played a

positive role in shortening the time frame of construction, improving construction quality, lowering construction cost and raising the results of investment. By the end of 1982, over 50 mines in the coal industry signed agreements on contracting construction projects with a construction capacity of over 18 million tons. Compared to similar projects which entered production in the last 3 years, the progress of construction of these projects under construction contract was at least twice as fast, while the investment in every ton of coal was lowered. After implementing the method of contracting, the 33 large-scale and medium-sized cold storages of the commercial system shortened their average time frame of the main construction projects from about 2 years in the past to about 1 year, while the construction cost was lowered by around 18 percent compared to the 10,000 cold storages that were built in recent years.

Fourth, We Strengthened Our Management on Designing. In 1982, we widely launched activities of summing up experiences among the survey and design units throughout the country, summed up experiences and lessons in an all-round and systematic manner from the higher to the lower level, and laid a good foundation for doing a good job of management and reform, promoting technological progress, vitalizing the thinking in designing and enabling designing and creativity to thrive in survey and design work. At the same time, we strengthened the scientific management in survey and design work. On the basis of investigation and study, the concerned departments in charge of the state drafted such documents as the regulations for management in strengthening survey and design work in capital construction, rules for the implementation of the economic system of contracting responsibility and for the assessment and selection of outstanding designs as well as a handbook for survey and design personnel. In November 1982, the State Planning Commission and the State Economic Commission jointly issued the "Notice on Such Basic Tasks as Economic Quotas, Criteria and Specifications for Strengthening Capital Construction." It asked that the various departments and various localities complete the work of drawing up and revising plans on a fixed schedule and prepare a number of criteria and specifications which the state would examine and approve, draw up and revise in 1983. In addition, they should plan, in the next 5 years or so, to supplement and revise in a widespread manner the various criteria and specifications for general use and for major specializations in the country, and bring about basic coordination accordingly.

Fifth, We Improved the Work of Management in Construction

1. We emphasized the all-round rectification of the construction enterprises. By the end of the year, 12 percent of the 568 construction enterprises under the system of ownership by all people and system of collective ownership that were listed as the first group to undergo rectification passed inspection and acceptance and reached the criteria of rectification. Through rectification, some enterprises underwent marked changes. They made new progress in such aspects as the implementation of the economic system of responsibility and the system of contracts as well as the reform of the labor wage system. The time frame of construction was shortened, the per capita area of construction completed was increased, and the profits delivered to the state was raised. On the basis of launching in a more popular manner the creation of overall outstanding construction, a group of construction enterprises that had attained over 80 percent of overall outstanding construction appeared.

2. We vigorously emphasized quality and safety in construction. The former State Construction Commission and the State Economic Commission successively issued notices on strengthening construction quality and safety production in capital construction. In light of the serious situation of several major cases involving quality and accident, they asked that all the capital construction departments and design and construction units throughout the country carry out a mass quality inspection and, in integration with the activities of the "quality month" and "safety month," carry out education on guaranteeing quality and guaranteeing safety, carry out meticulous design work and carry out meticulous construction. They checked hidden dangers and plugged up loopholes. The designs that were not up to standard were to be redone. Furthermore, construction was not permitted without design. As regards construction quality, we must adopt measures to reinforce structural defects, such as the subsidence of the foundation, improper foundation, cracks in the walls, welding defects, form change in the structure and leakage of roofs and ground structures. The notice reiterated that: Those units that do not have design certificates do not have the power to shoulder any construction and design tasks. All the rural construction teams that have not obtained approval are not allowed to go to the cities and towns to take up building tasks. In order to adopt effective measures to change the situation of confusion in management, poor construction quality and accidents involving collapses, injuries and deaths in the construction profession, especially in the construction in the counties and communes, the department responsible for urban construction and environmental protection under the State Council convened in Beijing in July 1982 the National Conference on Work Involving Quality and Safety in Construction. In August, it issued the "Provisional Regulations on Strengthening Technological Management Over Building Construction in the Counties and Communes," "Provisional Regulations on Strengthening Technological Management Over Survey and Design in Construction of the Counties and Communes," and "Provisional Regulations on Strengthening Safety in Production of the Building Enterprises Under the System of Collective Onwership."

3. The construction ranks throughout the country launched activities of assessing and selecting advanced construction enterprises, advanced collectives and advanced individuals. In October 1982, the State Economic Commission and the All-China Federation of Trade Unions convened in Beijing a "National Congress of Advanced Construction Enterprises, Advanced Collectives and Advanced Individuals," the first one since the nation's founding. At the congress, 32 construction enterprises were awarded the title of "advanced construction enterprises" (the list is given below), 38 collectives (teams, shifts and groups) were awarded the title of "advanced collectives" and 61 people were awarded the title of "national labor models in capital construction."

4. We carried out assessment and selection of outstanding construction projects and outstanding building construction enterprises throughout the country for 1982. In this activity of assessment and selection, we conscientiously inspected, assessed and compared the important core construction projects that were launched since the "Fifth 5-Year Plan" period. We covered a lot of ground, which not only included the entire process of survey, design and construction of the construction projects, but also the results of utilization

after these projects entered production. In accordance with the criteria issued by the state and after assessment and selection by the various departments and localities, 1 construction project was awarded the state's gold medal for outstanding construction, 27 construction projects were awarded the state's silver medal for outstanding construction and 3 enterprises were awarded the state's silver medal for outstanding construction enterprises. The award-winning construction projects included the various categories of construction, such as farmland water conservancy, industry, energy, communications, commerce and civil engineering. The award winners included some 140 survey, design, construction and building units of 25 departments (trades) and 27 provinces, municipalities and autonomous regions.

In 1982, China did a large volume of work in capital construction and scored new achievements. This was an important factor for the appearance of a better situation in the entire national economy at present. However, there were several prominent problems in capital construction in 1982:

1. The Scale of Capital Construction Grew Too Rapidly. Since the nation's founding, on three occasions, the scale of capital construction grew rapidly by over 10 billion yuan compared to the preceding year, resulting in an all-round tension in the economy and bringing about tremendous losses and waste. In 1982, the scale of capital construction again grew by over 10 billion yuan compared to the preceding year. The rate of accumulation in the same year rose again by roughly 30 percent. The supply of some construction means of materials, which was relatively relaxed in the preceding year, was again in shortage. This crowded out the repairs, renewal and transformation involving production and market consumption. In particular, with the expansion of the scale, the capital construction front also began to be lengthened. In addition to restoring the construction of several hundred large-scale and medium-sized projects and several thousand small-scale projects which were terminated or slowed down in the last few years, the construction projects in 1982 numbered 11,000 more than the preceding year, with a total of 71,000 projects, 34,000 of which were newly-launched projects that year and many of which were blind and redundant construction projects. The number of projects under construction in a fiscal year was the highest since the nation's founding.

2. The Utilization of the Investment in Capital Construction Was Dispersed. The proportion of investment within the state budget continued to drop, while the proportion of all types of self-raised investment rose sharply. Some key projects were not given the proper guarantee for financial and material resources and their progress was thus affected. In recent years, the state implemented a series of measures to vitalize the economy. These included "cooking meals on separate stoves" in finance and expanding the profit-retention by the enterprises. Having money and material in hand, the localities, enterprises and departments therefore wanted to launch more projects. When the banks had a greater increase in the amount of credit, they also had more means of issuing loans. With the failure of the work of management to catch up with the situation, the proportion of the use of all types of self-raised funds and funds from bank loans on capital construction increased for years on end. Because the state financial revenue did not increase a lot, investment in capital construction was therefore extremely limited. This

brought about a big change in the composition of the sources of investment in capital construction (for details, see Table 4).

Table 4. Table Showing the Changes in the Composition of the Sources of Investment

	1978	1979	1980	1981	1982
State investment	83.3	75.9	53.7	50.3	41.9
Domestic loans	--	1.0	7.4	10.1	13.1
Foreign funds utilized	--	3.0	9.6	7.8	10.3
Self-raised and others	16.7	20.1	29.3	31.8	34.7

The increase by a wide margin of the investment outside the budget was primarily used in the general construction projects of the various departments, localities and enterprises. This made it difficult for the state to concentrate its forces on promoting key construction projects. Calculating from comparable specifications, in 1982, the state planned and arranged for the completion and entry into production of 80 large-scale and medium-sized projects as well as individual construction projects. As a result, 33 of them failed to fulfill their plans and 24 of them failed to enter into production on schedule.

3. The Investment in Nonproductive Construction Rose for Years on End. The large proportion of this type of investment embodied the character of subsidy, loans repayment and debt. However, if the proportion continued to be too large, it would inevitably affect the development of the economy. In recent years, the party and government made the utmost effort to solve the problem of the many years of debt involving the people's livelihood and social facilities, and made great progress and scored achievements. In 1982, the proportion of investment in nonproductive construction reached the highest level in some 30 years. (For details, see Table 5)

Table 5. Table Showing the Changes in the Proportion of Investment in Productive and Nonproductive Construction Projects

Unit: percent

Categories	1978	1979	1980	1981	1982	Amount of investment in 1982 compared to 1981 (±)
Productive construction	82.6	73	66.3	58.8	54.5	+ 20
Nonproductive construction	17.4	27	33.7	41.2	45.5	+ 32.6
Of this: housing	7.8	14.8	20	25.5	25.4	+ 24.9

In accordance with the basic principle of "first, feed the people and second, build the country," while continuously improving the conditions of the people's livelihood, it is in accord with the people's long-term and basic interest to appropriately control the scale of nonproductive construction.

4. The Economic Results of the Investment in Capital Construction Were Still Not Markedly Raised, and Were Even Lowered in Some Aspects. In 1982, the rate of delivery of fixed assets dropped from 86.6 percent of the preceding year to 74.4 percent. The rate of completion of housing also dropped from 52 percent to 50.5 percent. The average cycle of construction of the large-scale and medium-sized projects was not markedly shortened. The time frame of some small-scale projects was lengthened. There were still some projects which, after completion, were unable to enter production or were unable to give full play to the results of investment because they were not equipped with the factors for production.

The List of Advanced Construction Enterprises Throughout the Country (awarded in October 1982 by the State Economic Commission and the All-China Federation of Trade Unions to the following)

The Beijing Municipal No 5 Building Construction Company
The Beijing Municipal No 3 Civil Engineering Company
The Tianjin Municipal No 2 Building Construction Company
The No 2 Building Construction Company of the Handan Municipal Building Construction Bureau in Hebei Province
The Tongliao Municipal No 1 Building Construction Company in Nei Monggol Autonomous Region
The Dalian No 1 Building Construction Company in Liaoning Province
The Shenyang Municipal No 3 Building Construction Company in Liaoning Province
The Jiamusi Municipal No 1 Building Construction Company in Heilongjiang Province
The Shanghai Municipal No 1 Building Construction Company
The Zhejiang Provincial No 1 Building Construction Company
The Wuhu Municipal No 1 Building Construction Company in Anhui Province
The Jinan Municipal No 4 Building Construction Company in Shandong Province
The Zhucheng County Building Company in Shandong Province
The No 2 Building Construction Company of the Hubei Provincial Building Construction Bureau
The Shiqi Building Construction Company of Zhongshan County in Guangdong Province
The Sichuan Provincial No 6 Building Construction Company
The No 1 Construction Department of the Yunnan Provincial Highway Bureau
The Yunnan Provincial No 9 Building Construction Company
The No 7 Construction Company of the Gansu Provincial Building Construction Bureau
The Chemical Industrial Construction Company of the Lanzhou Chemical Industrial Company in Gansu Province
The Qinghai Provincial No 1 Building Construction Company
The Xinjiang Uygur Autonomous Region No 1 Building Construction Company

The reason why there was a wider margin of increase in taxation was primarily because the development in production and the expansion in commodity circulation guaranteed the sources of taxes. At the same time, taxes were restored to some products, the tax rate was readjusted and the scope of taxation was expanded. The levying of new taxes, such as industrial and commercial taxes for banks and special taxes for the burning of oil, also increased the sources of taxes. The tax departments of various localities further strengthened the management over taxation, and scored relatively good results accordingly.

In 1982, in addition to the relatively good fulfillment of revenues by the railroad and communications enterprises, which brought about a respective increase in revenues of 13.6 percent and 18.7 percent over the preceding year, the profits realized by the state-run industrial enterprises within the budget dropped by 0.9 percent. Calculating from constant specifications, there was an increase of 3 percent over the preceding year. The economic results were slightly raised compared to the last few years, but were still far from ideal. Calculation based on existing information showed that the revenues fulfilled by the industrial enterprises for the entire year constituted only 89.9 percent of the budgeted figure, which was a drop by 5.5 percent compared to the preceding year. The situation in the commercial enterprises in regards to the fulfillment of the revenues was even worse. Only 59.2 percent of the budgeted figure was fulfilled, showing a drop by 35.8 percent compared to the preceding year. There were two reasons as to why revenues were underfulfilled in the industrial and commercial enterprises. On the one hand, there were certain objective factors, such as the lowering of prices for a portion of commodities (such as wristwatches, television sets, polyester cotton cloth); the raising of the interest rate of bank loans; the recovery of taxation on some products and the levying of certain new taxes, which shifted a portion of the enterprise's profits over to taxes; and the increase in the use of profits to repay bank loans by the enterprises over the preceding year. On the other hand, because of problems that existed in enterprise business management, the economic results were far from ideal. In 1982, the gross value of industrial output of the industrial enterprises within the budget was 6.8 percent over the preceding year, while the realized profits dropped by 0.5 percent. The profits delivered to the state dropped by 4.4 percent, and the profits and taxes delivered to the state revenue, which was 21.09 yuan out of every 100 yuan of gross value of industrial output, dropped by 1.39 yuan compared to the preceding year, indicating a drop by 6.1 percent. If we readjust the objective factor of the shift in profits, then, calculating from constant specifications, the gross amount of profits of the state-run industrial enterprises within the budget was 3 percent over the preceding year, which was half of the speed of growth in output value. The profits delivered to the state only maintained the level of the preceding year, and the losses of the enterprises constituted 25.7 percent. The amount of losses for the entire year was equivalent to 8.1 percent of the gross amount of profits of the industrial enterprises within the budget. The situation involving some unmarketable and stockpiled light and textile industrial products was relatively serious. By the end of 1982, the use of funds for finished products by the state-run industrial units within the budget was 4 percent over the end of last year. The gross volume of commodity reserves of the commercial departments was 6 percent over the end of last year. The volume of commodities that were lying

idle, that were of inferior quality and high price and that were defective or deteriorated, increased by 20.7 percent. These conditions showed that the demand of the 1982 plan to raise economic results was not fulfilled in reality. Some results even failed to reach the 1981 level.

In addition, the losses in the grain and foreign trade enterprises also increased compared to the preceding year. In 1982, with a bumper harvest in agriculture, the state procured more grain and oilbearing products and paid more in negotiated prices and in surplus procurement at higher prices. The volume of sales of grain and oilbearing products at low prices also increased compared to the preceding year, which brought about a corresponding increase in the subsidy for price differences. Thus, the amount of losses of the grain enterprises was 7.5 percent over the year's budgeted figure and was 9.2 percent over the preceding year. The amount of losses of the foreign trade enterprises was also 16.2 percent over the year's budgeted figure.

Financial Expenditures Supported the Needs of Key Construction Projects and the Development of the Various Causes, But the Expenditures Increased Too Rapidly and the Investment in Capital Construction Increased Too Vigorously

Financial expenditures in 1982 totaled 111,328,000,000 yuan, 2.7 percent over the budgeted figure and 6.9 percent over the expenditure of the preceding year. In order to strengthen the key construction projects, the appropriations for capital construction were 4.5 percent over the preceding year. The newly-increased primary productive capacities as a result of investment were: 8.2 million tons in coal extraction, 3.17 million tons in petroleum extraction, 2.94 million kW of generating capacity, 510,000 spindles of cotton textile, 346,000 tons of machine-manufactured sugar, 59,000 tons of machine-manufactured paper and cardboard, 3.1 million tons in iron ore extraction, 725,000 tons of synthetic ammonia, 2.37 million tons of cement, 751 km of highway and 21.82 million tons of harbor handling capacity. In 1982, the expenditures in tapping potentials and carrying out transformation were 9.3 percent over the preceding year. This strengthened the technological transformation of the existing enterprises. In order to develop the investment in mental resources, we further increased the expenditures in culture, education, science and public health work. The proportion of expenses in these aspects in the state financial expenditures went from 10.1 percent in 1978 to 15.4 percent in 1981 to 17.7 percent in 1982. The number of natural science and technological personnel of the units under the system of ownership by all people was 9.6 percent over the preceding year. The number of student enrollment for the average institutions of higher learning increased by 36,000 people over the preceding year. The number of hospital beds increased by 1.8 percent over the preceding year. The number of professional public health and technological personnel throughout the country increased by 4.4 percent over the preceding year. In 1982, the state also guaranteed financial needs to make arrangements for employment of the urban unemployed young people, to readjust the wages of some staff members and workers of the state organs and professional units and to build housing quarters for staff members and workers. In addition, it continued to implement the policy of price subsidies for agricultural sideline products and the policy of agricultural taxes to stabilize burdens in order to continuously improve the urban and rural people's livelihood.

In 1982, the major problem in financial expenditures was that the various types of expenditures grew too rapidly. Besides the expenses in national defense and war preparations, the increased allocations for enterprise circulating funds, the professional expenses of the industrial, communications and commercial departments, compensations and social welfare funds, which were smaller than the budgeted figure and other expenses all exceeded the budgeted figure as well as the actual figures of the preceding year. For instance, the expenditures in the funds for tapping potentials and carrying out transformation was 47.2 percent over the budgeted figure and 2.7 percent over the preceding year. The increase in expenditures in this respect was primarily a result of the use of flexible financial resources by the local finances. The expenditures involving culture, education, science and public health work were 9.4 percent over the budgeted figure and 14.9 percent over the preceding year. Administrative expenses were also 4.6 percent over the budgeted figure and 15.1 percent over the preceding year. Its proportion in the gross financial expenditures went from 4.2 percent in 1978 to 7.3 percent in 1982. In particular, the investment in capital construction was promoted too vigorously. It went beyond the limits of our financial and material resources, which also affected the key construction projects. In 1982, the appropriations for capital construction were 9.3 percent over the budgeted figure and 5 percent over the preceding year. Of this, the expenditures in capital construction within the budget which the state directly arranged for only fulfilled 96.7 percent of the budgeted plan. In addition, the self-raised funds and all types of loans which the various localities and departments used to launch capital construction increased sharply. The investment in the capital construction projects which were completed in reality throughout the year totaled 55.5 billion yuan, 11.2 billion yuan over the preceding year and an increase of 25.4 percent. (Of this, the self-raised investment constituted over 5.2 billion yuan while the domestic loans constituted over 3.7 billion yuan.) If we add the investment in renewal and transformation to the above, then the scale of investment in the entire fixed assets would amount to 84.5 billion yuan. If, again, we add the investment by the urban and rural units under the system of collective ownership, which was 17.4 billion yuan and the individual investment in housing construction, which was 18.1 billion yuan, then the gross scale of investment in society's fixed assets throughout the country for 1982 would amount to 120 billion yuan.

Although a considerably large portion of the sources of investment came from extrabudgetary funds and bank loans, which did not affect the balance between the financial revenues and expenditures of that year, yet it would affect the balance between credit receipts and payments. Currently, a basic balance between credit receipts and payments is maintained by relying primarily on increasing the savings of residents. The excess use of savings as investment in capital construction is dangerous. At the same time, many localities also did not truly use the profits increased from the projects that entered production to repay the loans for capital construction, but used the normal profits originally realized by the enterprises. This has thus reduced the figures delivered to the state finance by the enterprise, which in a disguised form has expanded the financial appropriations for capital construction. Due to the steady increase of the loans for capital construction, the figure of loans repayment with the realized profits also grew bigger and bigger. This

inevitably affected financial balance. When the scale of investment is too big and the investment in small-scale projects and nonproductive construction projects is too high, financial and material resources will be dispersed, which will crowd out the key construction projects. In 1982, although the investment in energy industries was 1 billion yuan over the preceding year, yet its proportion in the gross amount of investment dropped from 20.6 percent of the preceding year to 18.3 percent. The large-scale and medium-sized projects also failed to fulfill the targets of completion and entry into production as stipulated in the state plans.

A Basic Balance in the State Revenue Was Continuously Maintained, But This Balance Was Still Not Sufficiently Consolidated

The results of the implementation of the state budget for 1982 showed that, after 1981, a basic balance in the state finances was continuously maintained in 1982. It should be pointed out that the difference in the situation between these 2 years was that the basic balance in 1981 was attained by tightening expenditures under the condition of a continuous drop in financial revenues, while the basic balance in 1982 was realized under the situation when financial revenues began to pick up and financial expenditures increased. It should be mentioned that this was an achievement scored in the course of striving for a basic turn for the better in the financial and economic situation.

At the same time, we should also be able to see that the basic balance in the finances is still not solid. If we do not adopt effective measures to increase revenue and economize on expenditures, especially if we do not strictly control expenditure and control the scale of investment under the situation when it is still impossible to increase revenues on a large scale, then we may still bring about a new and greater imbalance.

As everyone knows, the proportional relationships in the national economy were in disharmony for a long period of time, the economic results were poor and financial revenues failed to be promoted. In addition, in order to solve a series of problems that were left behind by history, we were compelled to appropriate a large amount of funds. As a result, a situation in which there was a drop in financial revenues for 3 consecutive years was brought about. Through the effort over these last few years, we have generally solved the problems left behind by history (including raising the procurement prices for agricultural sideline products, reducing or remitting taxes in certain rural areas, providing jobs for unemployed young people, increasing the wages and salaries of staff members and workers, building housing quarters for staff members and workers and strengthening urban construction). The pressure which the revenue inherited was relaxed. This was an important factor why financial revenues began to pick up again in 1982. However, the decisive factor for the increase in financial revenues, that is, the increase by a wide margin of economic results, has failed to be realized till this day. The reality of the situation is, financial revenues have been unable to grow in a synchronous manner with the growth in production. Furthermore, all items of expenditures have increased in an all-round manner and by a wide margin, and have exceeded the state financial strength. A considerable

portion of the basic financial balance is maintained in practice by loans and the issuance of state treasury bonds. Thus, in the next few years, under the circumstance when it is impossible to increase revenues by a wide margin, a very important issue in maintaining a basic balance between financial revenues and expenditures still lies in how to strictly control expenditures and control the scale of investment. We must not lower our guard.

We Provided Financial Aid for the Technological Transformation of the Enterprises

To carry out technological transformation on the existing enterprises and to gradually attain an advanced level of production technology, we must render active support and the necessary guarantees for funds. In recent years, in addition to the stipulated special-item funds held by the enterprises and the various special funds from financial appropriations, the state finances also adopted other measures of support: 1) They raised the depreciation rate of some trades and enterprises. In 1979, the depreciation rate of the fixed assets of the industrial enterprises that were implementing profit retention was generally raised by 0.5 percent; in 1980, the depreciation rate of the fixed assets of the railroad units was raised by 2 percent. Also, the criteria for maintenance cost drawn from the output of the mining and cutting enterprises belonging to the coal, metallurgical industrial and forestry trades were also slightly raised step by step. 2) They increased the appropriations for expenses in trial-manufacturing new products. In 1982, the state appropriated 850 million yuan for the various departments and localities under the central authorities to be used in the trial manufacture of key new products and technological development. 3) They set up funds for technological development. This meant the permission to draw technological development expenses from 1 percent of the cost according to the income from sales by some 500 key machine-building industrial enterprises and their coordinating factories and research units which formed the first group of units approved by the state to carry out technological transformation. 4) They set up funds for trial-manufacturing new products from the profit-retention funds drawn by the enterprises.

The statistics reported in the final accounts showed that, from 1977 to 1982, the funds which the state-run enterprises throughout the country drew totaled some 140 billion yuan. This included the funds for renewal and transformation, the funds for production development, the expenses appropriated by the finances at various levels for the scientific research cause, the expenses in trial-manufacturing new products, the funds for popularizing new technologies and the funds for importing technology. In addition, the various banks in recent years issued many types of loans for technologies and facilities. By the end of 1982, the balance was roughly some 22 billion yuan. In 1982 alone, the funds appropriated by the state within the budget, the special-item loans arranged by the state finances and the depreciation fund retained by the enterprises according to the state plans amounted to nearly 30 billion yuan. Under the circumstance when the state had insufficient financial resources, this was a rather impressive figure. In 1982, the investment in renewing and transforming facilities that was fulfilled by the enterprise and professional units under the system of ownership by all people throughout the country was

29 billion yuan, 29 percent over the preceding year. The completed projects played a definite role in saving energy, increasing product variety and raising product quality. At the same time, they increased the production capacity of a number of products, including primarily the following: 4.28 million tons in coal extraction, 3.19 million tons in petroleum extraction, 17,000 kW of generating capacity, 3.46 million tons of cement, and so forth. They also brought about definite results in strengthening transportation, posts and telecommunications and in improving the people's livelihood. However, a large amount of funds for transformation was still used in capital construction. Incomplete statistics showed that, in 1982, the proportion of investment used in building and expanding projects still constituted as high as 38 percent of the funds used in renewal and transformation. In the total investment in renewal and transformation, the investment in building and installation construction constituted 59 percent. The investment in renewing facilities only constituted 11.8 percent, which was less than 2 percent of the value of fixed assets of the existing industries. The current problem, from an overall standpoint, is the lack of an overall plan for renewal and transformation. From the macroeconomic standpoint, the state is unable to offer practical, realistic and effective guidance to the enterprises. It also lacks strict control over the funds for renewal and transformation, resulting in the misappropriation of a considerable amount of funds earmarked for capital construction. Even when the funds were used in renewal and transformation, the emphasis was on expanding production capacity and increasing output value and not on paying attention to raising product quality, increasing product variety, promoting product upgrading and updating, lowering the consumption of raw materials and saving energy. Thus, the urgent tasks at present are to stipulate without delay state technological policies and draw up overall programs for technological transformation and programs for transformation for separate trades. In the renewal of facilities and technological transformation of the enterprises, we must conform to the programs for the development of trades and implement macroeconomic control over them. The depreciation funds and maintenance cost drawn by the enterprises can only be used in renewal and transformation and not in capital construction or other projects which were primarily for extensive expansion of reproduction. The materials, facilities and necessary scientific research work required by the enterprises in renewal and transformation should be included in the state plans and implemented under unified arrangement. In the management of funds, we should change from management by several sources to unified management by professional banks (construction banks), which will specially manage the investment in fixed assets, thereby practically and realistically guaranteeing the smooth implementation of renewal and transformation according to the state technological policies and programs for technological transformation.

We Made Preparations for the Implementation of the Substitution of Tax Payment for Profit Delivery by the State-run Enterprises

The implementation of the substitution of tax payment for profit delivery by the state-run enterprises refers to the following: As regards the net income of the state-run enterprises where the state finances are concentrated on, the system of profit delivery to the state will be changed to tax payment according to the tax types and tax rates stipulated by the state and the profit

after taxation will be controlled by the enterprises themselves. This is a major reform and is an important aspect of the reform of the economic system of management. In 1982, the Ministry of Finace made active preparations for launching this reform.

The implementation of the substitution of tax payment for profit delivery by the state-run enterprises was proposed on the basis of the reform of the financial system among the enterprises and the pilot experience in the substitution of tax payment for profit delivery over the past few years. In 1978, the system of enterprise funds was implemented among the state-run enterprises. By the beginning of 1979, the method of profit retention was trial-implemented by some state-run enterprises. By the end of 1981, the state-run enterprises had popularly implemented all forms of economic system of responsibility, including profit retention and assumption of sole responsibility for one's own profits or losses. The implementation of the abovementioned system played a positive role in expanding the enterprise's decision-making power and flexible financial resources, mobilizing the enthusiasm of the enterprise and staff members and workers in production, vitalizing the economy, raising results and solving the problems involving the livelihood of the staff members and workers which had been left behind for many years. In short, the results were excellent. However, practice proved that such forms as profit retention and assumption of sole responsibility for one's own profits and losses were not ideal methods of handling the relations of distribution between the state and the enterprise.

This was because, under the existing system of profit retention when the enterprise made more profit, it had higher profit-sharing. However, when it made less profit, it was often taken care of by such methods as "readjusting" the profit targets. Thus, even when the enterprise incurred losses, it shouldered minimal economic responsibility. This was unfavorable to closely integrating the three aspects of responsibility, rights and interests for the enterprise and we were unable to truly implement the economic system of responsibility among the enterprises. We could solve these contradictions through implementing the method of substituting tax payment for profit delivery. In order to do a good job of substituting tax payment for profit delivery, the Ministry of Finance, since 1980, implemented the substitution of tax payment for profit delivery in some cities and trades. On the basis of these pilot experiences, by the end of 1982, together with the Committee for Reforming the System of the National Economy, it carried out investigation and survey on the substitution of tax payment for profit delivery in Shanghai, Tianjin, Jinan and other places, and proposed a program for the trial-implementation of substituting tax payment for profit delivery. This program was approved and publicized by the State Council. In addition, it was decided that this would be put into effect in 1983.

We Should Strive for a Further Turn for the Better in Our Finances

At the 12th CPC Congress, it was proposed that we should strive to realize a turn for the better in our financial and economic condition in the next 5 years. The financial condition is a comprehensive reflection of the national economy and a turn for the better in the economic condition is the necessary

prerequisite for a turn for the better in the financial condition. Inversely, a turn for the better in the financial situation can promote a turn for the better in the economic situation. In light of our historical experience and the present situation, the primary approaches to striving for a further turn for the better in the financial condition are:

First, We Must Practically and Realistically Raise the Economic Results. The present financial situation is the steady increase in expenditures and the inability to increase revenues, which have affected the key construction projects and the development of the various causes. To bring about a major breakthrough in financial revenues, we must devote a lot of time and energy to raising the economic results. In terms of the proportion of the financial revenue in the gross value of industrial and agricultural output, it was 18.68 percent during the First 5-Year Plan period, 17.58 percent during the 3 years of readjustment, 16.3 percent during the Third 5-Year Plan period, 16.6 percent during the Fourth 5-Year Plan period, and 14.4 percent during the Fifth 5-Year Plan period. This showed that the trend of drop was a longstanding one. At the same time, this also showed that the potentials were very great. As long as we practically and realistically shift our financial and economic work onto the path of taking the raising of economic results as the key, make the raising of economic results as the priority in our work, and oppose the tendency of pursuing output value and pursuing speed in a onesided manner, then we can enable financial revenue to grow with the industrial output value in a synchronous manner, and even increase at a faster speed than the industrial output value.

Second, We Must Appropriately Concentrate Our Financial Resources. In recent years, our financial revenues dropped year after year while our extrabudgetary funds increased steadily. From 1979 to 1981, our extrabudgetary funds increased roughly 6 billion yuan every year, with the total amount of some 60 billion yuan by 1982, which almost became our "second budget." The impetus of growth in the future will be weakened, but there will still be growth. On the other hand, the proportion of the financial revenue in the national income dropped from 37.2 percent in 1978 to 25.5 percent in 1982. In order to concentrate the necessary funds on guaranteeing the key construction projects, we must appropriately raise the proportion of the financial revenue in the national income and enable the former to gradually reach 28 or even 30 percent or thereabout. At present, in view of the entire country, the enterprises already have a lot of money. In the future period, the income to be retained by the enterprise should be stabilized at the level after the readjustment. As regards the growth in profit every year, we should persevere in the principle of the state having a bigger share and the enterprise having a smaller share. As regards the entire extrabudgetary fund, we should carry out rectification and strengthen management, and should not increase the number of items, expand its scope and raise its criteria of use. We must establish a comprehensive plan for financial revenues and expenditures, implement separate management over the budgeted funds and the extrabudgetary funds, make overall arrangements and carry out unified balance. Besides the running expenses, we must guide the use of the extrabudgetary funds onto the technological transformation of old enterprises and the construction projects urgently needed by the state. At the same time, we must establish a strict budget and final accounts system regarding the extrabudgetary funds. Our country is a large country

with a population of 1 billion people and is a poor country. If we appropriately concentrate our funds, then, as many as a little makes a mickle, we can create impressive financial strength. Inversely, if our funds are too dispersed, then we will not be able to form a "fist" and will not be able to accomplish too many things. Our country is a socialist country. The superiority of the socialist system is its ability to concentrate the financial and material resources of the entire country on supporting key construction projects and on solving the problems which a province or a locality cannot solve by itself. During the First 5-Year Plan, we concentrated our financial and material resources on guaranteeing the construction of 156 key projects, thereby laying the foundation for industrialization. Today, we must also do what we did during the First 5-Year Plan, and appropriately concentrate our financial resources on guaranteeing the key construction projects.

Third, We Must Take Into Consideration Both State Construction and the People's Livelihood in the Distribution of Financial Resources. We should handle appropriately the growth in accumulation and consumption. For a long period of time in the past, we overemphasized construction and neglected the improvement of the people's livelihood. Since the 3d Plenary Session of the 11th CPC Central Committee, we have readjusted the proportion between accumulation and consumption, and brought about a marked improvement in the people's livelihood. This is entirely necessary. In the future, in handling the relationship between the two, we must bear in mind the principle of "first, feed the people and second, build the country," and first of all guarantee the basic needs of the people's livelihood. However, the people's livelihood can only improve gradually on the basis of production development in light of our capability. Generally speaking, the speed of growth of an individual's income must not be faster than the speed of growth of labor productivity and the speed of growth of bonuses must not be faster than the speed of growth of the average wage scale. Otherwise, the accumulation of funds for state construction will inevitably be affected. The various types of financial subsidies with the primary one being the price subsidy for agricultural products now constitute over 30 percent of the gross state financial expenditure. In the next few years, on the basis of the development of industrial and agricultural production and the raising of economic results, we must carry out reform of the price and wage systems in an integrated fashion and gradually lower the figure of financial subsidies to about 20 percent of the state financial expenditure. On the other hand, after the financial and economic situation begins to take a turn for the better, it is entirely necessary to increase our investment in some construction projects in a planned manner. However, we must also pay attention to our capability, strengthen comprehensive balance and guarantee the needs of the key construction projects. Currently, we must practically and realistically control the scale of construction, and avoid blind and overlapping construction projects, avoid the crowding out of large-scale projects by small-scale projects and avoid losses. Otherwise, a new proportional disharmony will take place and the economy will need to be readjusted after a period of time.

Fourth, We Must Strictly Control All Items of Expenditure. Since 1981, we have maintained a basic balance between financial revenues and expenditures for 2 consecutive years. This did not come about easily. We must soberly

realize that this type of balance is still not solid. In the next 2 to 3 years, our national economy still awaits to be further readjusted. Our financial revenues will not possibly increase by a wide margin, while expenditures in various respects will only increase. This will create a sharp contradiction. If we do not start to work with one heart now to vigorously increase revenues and economize expenditures, then, we may still increase our financial deficits, and will also have difficulty maintaining our basic balance. We must conscientiously handle this aspect. For this purpose, while strictly controlling the scale of construction, we must also strictly control the various items of expenditure. We will do so much with the money we have. Loans and the issuance of state treasury bonds can only be used in production construction and must not be used as expenses in consumption. We should emphasize the seriousness of the state budget. Without the approval of the NPC Standing Committee, no one has the power to supplement or go beyond the budget. The financial departments should strictly guard their pass and act in accordance to the law.

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CHINA'S BANKING IN 1982

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[Text] In 1982, we worked hard to create a new situation in China's banking profession. In this year, much work was done by the banking departments, and definite achievements were scored.

I. The Economic Results of the Loans for Industrial Circulating Funds Were Slightly Raised

In 1982, the balance of the loans for industrial circulating funds was 84.9 billion yuan, 3.55 billion yuan over that of the beginning of the year, showing a growth of 4.4 percent, which was lower than the 7.4 percent growth rate of the gross value of industrial output for the entire year. In the industrial production enterprises, the situation of a greater increase in production and smaller increase in funds appeared. In 1982, the loans for industrial circulating funds manifested the following characteristics:

1. The turnover of the circulating funds for the state-run industrial enterprises was accelerated. The industrial enterprises realized 346.6 billion yuan in income from the sales of products, 6.2 percent over the preceding year. The average balance of the fixed-quota circulating funds was 107,704,000,000 yuan, 4.0 percent over the preceding year. The turnover of the fixed-quota circulating funds was shortened from 114.3 days in 1981 to 111.9 days, thereby fulfilling the demand to accelerate the turnover of circulating funds for the entire year by 2-3 percent. The gross value of industrial output that was realized totaled 353.2 billion yuan, 6.3 percent over the preceding year. The fixed-quota circulating funds that were used without repayment at the end of the year totaled 110.6 billion yuan, 5.1 percent over the preceding year. This changed the situation of the last few years in which the growth in the use without repayment of circulating funds exceeded the scope of growth in production.

2. Heavy industrial production grew rapidly and the turnover of funds was accelerated. In 1982, we further readjusted the product structure in heavy

industry. Production picked up again rapidly. There was increase in the production and sales of products. The use without repayment of funds for finished products was slightly more flexible. The speed of turnover of funds was accelerated. Bank loans increased slightly. Statistics of the Ministry of Machine-building Industry on 5,604 state-run industrial enterprises showed that, in 1982, the gross value of industrial output fulfilled was 34.38 billion yuan, 15.9 percent over the preceding year. The turnover of fixed-quota circulating funds was 227 days, 44 days faster than the preceding year, which was 16.2 percent faster. The use without repayment of the funds for finished products was 4.78 billion yuan, 150 million yuan less than the preceding year, which was a reduction of 3 percent. Because the turnover of circulating funds in heavy industry was generally accelerated, the economic results of industrial production and the utilization of funds were preliminarily raised. By the end of 1982, the loans for circulating funds of the machine-building, metallurgical and chemical industrial enterprises only increased 109 million yuan as compared to the beginning of the year, while the loans for circulating funds of these three industrial departments increased 2.65 billion yuan and 1.54 billion yuan in 1980 and 1981, respectively. Because of the wide-margin increase in heavy industrial production, the social reserves of steel products and electromechanical products were reduced and the turnover of funds for the materials supply and marketing enterprises was correspondingly accelerated. The balance of the bank loans for the materials supply and marketing departments was 23.05 billion yuan, 1.08 billion yuan less than the beginning of the year. Of this, the materials supply and marketing loans of the central authorities, which had dropped by a wide margin for 2 consecutive years, again dropped by 940 million yuan. The materials supply and marketing loans of the localities went from rising to falling, and dropped by 140 million yuan.

3. The speed of growth of collective industrial loans was reduced. The balance of the collective industrial loans amounted to 9,658,000,000 yuan, 741 million yuan over that of the beginning of the year and up 8.3 percent. It was less than the 22 percent increase in the collective industrial loans for 1981, with a reduction of nearly 1 billion yuan in loans.

In 1982, the results of the use of loans for industrial circulating funds were raised, but the development was still unbalanced. In respect to the loans for light industry, because of the irrational increase in the reserves of finished products, the turnover of circulating funds was slowed down, which held up a portion of the bank loans. The loans for circulating funds increased by 3.14 billion yuan compared to the beginning of the year, which constituted 90.7 percent of the amount of increase in loans of the state-run industrial enterprises.

II. The Balance of Commercial Loans Increased, the Frequency of Turnover of Loans Decreased

By the end of 1982, the balance of commercial loans of the system under the People's Bank was 99.16 billion yuan, 6.86 billion yuan over that of the beginning of the year, which was a 7.4 percent increase. The frequency of turnover of commercial loans was 6.30 times, 0.44 times slower than the 6.74

times of the preceding year. The commercial loans vigorously supported the commercial departments in procuring marketable commodities, expanding sales, satisfying the needs of the market and striving to raise the results of the utilization of credits and loans. The overall situation was fine. For instance, in 1982, the grain and edible oil output in our country surpassed the highest level in history. Grain procurement increased 14 percent over the preceding year and edible oil procurement increased 10.4 percent over the preceding year. The sales of grain and edible oil also increased by a relatively wide margin compared to the preceding year. At the same time, the loans for the grain and edible oil systems increased 17.2 percent over the preceding year, thereby effectively supporting the procurement of grain and edible oil without delay. But the commercial departments still used in excess the circulating funds without repayment. The economic results of the commercial loans were still relatively poor. They were primarily manifested in the following aspects:

1. Slow turnover of circulating funds and poor results. In 1982, the system under the existing Ministry of Commerce expanded its scale of circulation. Bank loans increased accordingly. But the results of the utilization of circulating funds were poor. The use of funds without repayment was excessive and the turnover was slow. The turnover of circulating funds in the system under the existing Ministry of Commerce was 1.93 times, each turnover requiring 189 days, which was 0.18 times slower than the preceding year and 16 days slower for each turnover. For the amount of 100 yuan of sales, 51.45 yuan of funds was used without repayment, which was 4.11 yuan more than the 47.34 yuan of the preceding year. Calculating from this, 5.84 billion yuan of funds was used without repayment.

2. The structure of commodity reserve was irrational, the proportion of unmarketable and stockpiled commodities was high and a large amount of funds lay idle. According to the analysis conducted by the Ministry of Commerce on the reserves of 137 major industrial products, 62 had a basically rational reserve, 12 had inadequate reserve and 63 were overstocked. There was roughly 8.7 billion yuan of irrational reserves.

3. The structure of the use of funds without repayment was irrational, the proportion of commodity funds was lowered and the proportion of the settled funds was raised. At the end of the third quarter of 1982, in the gross amount of circulating funds of the system under the existing Ministry of Commerce, commodity funds constituted 77.63 percent, a drop by 8.37 percent compared to the 86 percent of the historically advanced year of 1955. The proportion of the settled funds was as high as 19.26 percent, 8.82 percent higher than the 10.44 percent of the historically advanced year of 1955. By the end of October, the use without repayment of the settled funds of the system under the Ministry of Commerce totaled some 14 billion yuan, 2.3 billion yuan over the corresponding period of the preceding year. This was brought about by the opening up of commercial credits and the failure of management measures to catch up with them, resulting in the large-scale increase of mutual arrears among enterprises.

III. There Was Marked Improvement in the Situation of Monetary Circulation on the Market

In 1982, the amount of monetary circulation on the market was 43,912,000,000 yuan, 10.79 percent over the preceding year. An additional 4,278,000,000 yuan worth of vouchers was issued, a reduction by 736 million yuan compared to the absolute amount of additional vouchers issued in 1981. The scope of increase of the monetary amount on the market dropped by 3.69 percent. The situation of monetary circulation on the market markedly improved. Although the increase in the monetary circulation on the market in 1982 still exceeded the growth of the concerned targets of the national economy, the situation of commodity supply and monetary circulation on the market has continued to improve compared to the preceding few years. This was because, in 1982, many new situations and new changes as well as new factors for expanding the necessary amount of circulation appeared in the realm of monetary circulation on the market.

1. The scope of the use of cash in the rural areas expanded. After the implementation of the economic system of responsibility, the means of agricultural sideline production was primarily purchased with cash by the individual commune members. The increase of the self-prepared production cost brought about a corresponding increase in the quantity of cash-in-hand of the commune members. Statistics showed that the proportion of the average expenses of each commune member in purchasing means of production in the expenses in purchasing commodities rose year after year. In 1979, it was 13.9 percent. In the first half of 1982, it was 27 percent. The portion of the cash paid by the state in procuring agricultural and sideline products increased year after year, which correspondingly increased the cash-in-hand of the commune members. In 1978, the cash paid in procuring 100 yuan of agricultural sideline products was 27.9 yuan. In 1982, it rose to 55.7 yuan.

2. The relationship between accumulation and consumption was readjusted, urban employment expanded, wage scale readjusted, and bonuses and subsidies increased. All these aspects increased the monetary income of the urban residents and correspondingly increased their cash-in-hand. From 1979 to 1981, the newly increased staff members and workers totaled 26 million people. After the implementation of the system of awards, nearly 20 billion yuan was given as bonuses. In these 3 years, the various types of consumer subsidies for urban residents amounted to 62.8 billion yuan. Statistics showed that the monetary income of the urban residents totaled 109.03 billion yuan in 1981, 33.87 billion yuan over that of 1978, an increase of 45.1 percent and an average annual progressive increase of 13.2 percent. The increase in the monetary income of the urban residents not only expanded consumption, but also increased a portion of the cash-in-hand.

3. The channels of commodity circulation increased, and the monetary demand on the market correspondingly increased. In order to vitalize the economy, the former unitary channel of commodity circulation operated by the state-run commerce developed into a multi-channel circulation where various types of business forms coexisted, with the state-run commerce as the main body, the collective commerce as the assistant and the individual commerce and fair

trade as the supplementary body. Because of the increase in the channels of circulation and the expansion of commodity circulation, the amount of cash payments and receipts also increased, and the links for preserving cash reserve also increased, thereby increasing the amount of monetary circulation.

The relatively big increase in monetary quantity due to the abovementioned new factors was a necessity in economic development. Thus, in 1982, although the growth of our country's volume of monetary circulation surpassed the growth of the concerned targets of the national economy, the situation of our country's monetary circulation that year still demonstrated a marked turn for the better.

IV. Urban and Rural Savings Throughout the Country Registered the Highest Level in History

In 1982, the urban and rural savings throughout the country continued to rise. By the end of 1982, the total amount of urban and rural savings throughout the country was 67,538,000,000 yuan, 15,169,000,000 yuan over that of the end of 1981, which was an inrease by 28.97 percent and the highest level in history. By the end of 1982, the average savings per person in the urban and rural areas throughout the country was 67 yuan, 14 yuan over that of the end of 1981. In the urban and rural fixed deposits, the long-term deposits of 3 years and above constituted roughly 50 percent. The scope of participation in savings continued to expand. The number of urban savings accounts alone already totaled 165 million households, 35 million households more than that of the beginning of the year. In order to make things convenient for the masses to participate in savings, the people's banks, agricultural banks and credit cooperatives of various localities continued to increase the savings network outlets. There were 2,052 new savings banks in the cities and towns. The increase in the urban and rural savings in 1982 played an important role in increasing the sources of credit funds and maintaining a balance between credit and loans.

V. New Progress Made in the Work of Economic News

The People's Bank began to launch the work of economic news since the latter half of 1980. Through the practice of work in 2 years, in February 1982, we convened the National Conference on the Work of Economic News by the Banks, during which we summed up our experiences and made more rapid progress in the work involving economic news.

1. We popularly set up economic news organs and gradually consolidated our rank of news personnel. By the end of 1982, the provincial, municipal and autonomous regional branches of the People's Bank had already set up 20 leading groups in economic news with a total of 148 personnel. The prefectural and municipal branches set up 238 groups, which constituted over 50 percent of the prefectural and municipal branches throughout the country. There were already 1,268 full-time personnel and 8,256 part-time personnel who were involved in the work of economic news.

2. We further improved the economic news network and expanded news exchange. Currently, the system under the People's Bank already set up a multilevel news network. This included: The news network of the banks throughout the country, the cooperative news network of the large regions, the news network of the provincial, municipal and autonomous regional banks, as well as the news network of the prefectural, municipal and county branches. In order to carry out product forecast, we organized several news networks to collect data on and study the products throughout the country. Together with the local concerned economic departments and enterprises, many branches established all forms of horizontal news network. Statistics showed that, in 1982, there were 6,326 cooperative news units within the banking system and 3,468 cooperative units outside the system. Within the news network itself and among the various networks, news transmission and exchange were conducted in a widespread manner. The banks at various levels dispatched over 200,000 pieces of news for the entire year, among which 3,066 pieces of news feedback scored marked economic results. There were 2,059 pieces of news that were transmitted upon the instructions of the party and government leadership at various levels. There were 1,860 pieces of news that were adopted by radio stations, newspapers and journals at various levels.

3. We established an economic news file. In 1982, the news organs established a total of 9,622 files on products, 11,625 files on enterprises, and 1,019 files on trades. Some even established files concerning the national economy and the banking profession. In accordance with the demand of the scientific management of news and materials, some branches carried out classification, cataloging and recordkeeping. Others even printed indices of materials, thereby creating the condition for checking and searching materials as well as carrying out consultation.

VI. The Basic Task in the Work of Banks in the Next 5 Years

In order to create a new situation in the work of banks, the People's Bank of China decided that, in the 5 years from 1983 to 1987, the basic tasks of the banks are: To implement the spirit of the 12th CPC Congress, maintain monetary stability, actively collect funds, raise the results of funds, vitalize banking work, promote economic development and technological progress, and render more contributions to realizing a basic turn for the better in the financial and economic situation and to laying a good foundation for an economic revival.

In accordance with this basic task, the goal of struggle and the focus of work in the next 5 years are:

1. Reach the criterion of normal circulation of money on the market. We must work hard to clarify the new situation of monetary circulation and regulate it in an appropriate manner. We must actively support the development of agriculture and the industry involving consumer products, and increase the capacity of the withdrawal of currency. We must persevere in the basic balance between credit and loans, and gradually attain the compatibility between the amount of monetary circulation and commodity circulation on the market.

2. Actively accumulate funds and attain a definite scale in doing so.

3. Improve in a marked manner the results of the utilization of funds. We must tap the potentials of funds in the midst of the turnover of circulating funds and use them as loans for the technological transformation of enterprises. The medium-length and short-term facilities loans should gradually be shifted onto supporting technological progress.

4. We must make a breakthrough in the reform of the system of organization. We must emphasize the overall program and steps of implementation in the reform of the banking system. In 5 years, we must make greater progress in the establishment of a banking system that embodies Chinese characteristics. We must reform the banking system in an all-round manner and give full play to the role of banks as levers in developing the economy and renewing technologies.

Appendices: 1) Statistical materials on 1982's banking (see Tables 1, 2 and 3). 2) Statistical table showing the urban and rural savings throughout the country for 1982 (see Table 4).

Table 1. The Situation of the State's Credit Payments and Receipts for 1982

Unit: 100 million yuan

Item	Balance at end of first quarter	Balance at end of second quarter	Balance at end of third quarter	Balance at end of fourth quarter
Various items of savings	1,980.23	2,021.76	2,093.77	2,287.14
Savings of enterprises	643.53	623.11	652.11	717.88
Financial savings	236.72	230.82	206.22	175.76
Savings from capital construction	220.76	258.79	274.64	284.80
Savings from government organs and groups	300.58	313.26	327.67	331.43
Urban savings deposits	383.96	406.88	427.98	447.33
Rural savings	194.68	188.90	205.15	329.94
Transactions of international banking organizations	51.62	52.41	52.41	52.41
Circulating currency	377.87	352.50	377.39	439.12
Funds which the banks possess	514.27	514.27	514.27	518.29
Balanced profits of the year	18.72	29.72	39.90	36.68
Others	31.66	34.92	31.81	81.60
Sum of sources of funds	2,974.37	3,005.58	3,109.55	3,415.24
Various loans items	2,662.78	2,681.33	2,766.71	3,052.27
Loans to enterprises in industrial production	479.90	481.53	487.82	526.72
Loans to industrial supply and marketing enterprises and materials departments	224.47	216.52	214.45	239.85
Commercial loans	1,534.69	1,520.85	1,586.13	1,788.21
Medium-length and short-term facilities loans	95.15	106.94	121.35	151.98
Loans to urban collectives and individual industry and commerce	112.25	112.05	113.81	133.06
Loans for forward purchasing deposits	9.27	15.96	14.50	7.43
Loans for state-run agriculture	15.74	18.81	20.28	19.81
Loans for rural communes and production brigades	192.31	208.67	208.37	185.21
Percentage of gold	12.04	12.04	12.04	12.04
Percentage of foreign exchange	90.69	103.35	122.23	142.79
Assets in the IMF	38.63	38.63	38.34	37.91
Financial loans	170.23	170.23	170.23	170.23
Sum of utilization of funds	2,974.37	3,005.58	3,109.55	3,415.24

Table 2. The Situation of Savings and Loans of the Rural Credit Cooperatives for 1982

Unit: 100 million yuan

Item	Balance at end of first quarter	Balance at end of second quarter	Balance at end of third quarter	Balance at end of fourth quarter
Sum of the various items of savings	291.74	297.83	310.33	389.88
Savings of commune and brigade collectives	69.18	72.45	77.71	121.06
Savings of commune and brigade enterprises	21.68	23.35	25.26	33.66
Savings of individual commune members	193.29	194.94	199.95	228.11
Other savings	7.59	7.09	7.41	7.05
Sum of the various items of loans	150.75	170.13	165.88	121.15
Loans to commune and brigade agriculture	55.51	63.19	59.27	34.76
Loans to commune and brigade enterprises	46.84	47.51	47.52	42.30
Loans to individual commune members	48.40	59.43	59.09	44.09

Table 3. The Situation of Exchange Rate, Gold and Foreign Exchange Reserve for 1982

Month	Exchange rate			Exchange reserve	
	Money drawn by units with special money-withdrawing power converted into renminbi (figure at the end of the term)	U.S. dollars converted into renminbi (figure at the end of the term)	U.S. dollars converted into renminbi (average figure)	Foreign exchange (in $1 million)	Gold (in 10,000 ounces)
January	2.0581	1.7930	1.7677	52.05	1,267
February	2.0736	1.8401	1.8174	49.17	1,267
March	2.0787	1.8675	1.8379	52.05	1,267
April	2.0534	1.8177	1.8519	58.33	1,267
May	2.0554	1.8285	1.8097	63.21	1,267
June	2.1091	1.9310	1.8970	70.59	1,267
July	2.1038	1.9264	1.9236	81.54	1,267
August	2.1068	1.9452	1.9387	85.86	1,267
September	2.1108	1.9684	1.9504	92.28	1,267
October	2.1243	1.9996	1.9822	99.52	1,267
November	2.1328	1.9757	1.9941	104.72	1,267
December	2.1270	1.9227	1.9399	111.25	1,267

Table 4. Statistical Table of Urban and Rural Savings Throughout the Country for 1982

Unit: 100 million yuan

	Balance of urban and rural savings	Fixed deposits	Current deposits	Proportion of fixed deposits	Balance or urban savings	Fixed deposits	Current deposits	Proportion of fixed deposits	Balance of savings of commune members	Fixed deposits	Current deposits	Proportion of fixed deposits
End of 1981	523.69	396.40	127.29	75.69	354.14	289.42	64.72	81.72	169.55	106.98	62.57	63.10
January 1982	547.86	413.73	134.13	75.52	359.26	291.91	67.35	81.25	188.60	121.82	66.78	64.59
February	568.34	434.81	133.53	76.51	374.37	302.92	71.44	80.91	193.98	131.89	62.09	67.99
March	576.75	444.44	132.31	77.06	383.96	310.98	72.98	80.99	192.79	133.46	59.33	69.23
April	582.65	453.49	129.16	77.83	390.94	318.86	72.08	81.56	191.71	134.63	57.08	70.23
May	589.12	460.65	128.47	78.19	398.16	325.05	73.11	81.64	190.96	135.60	55.36	71.01
June	601.81	469.36	132.45	77.99	406.88	331.30	75.58	81.42	194.94	138.06	56.88	70.82
July	614.70	478.33	136.37	77.82	416.91	338.18	78.73	81.12	197.79	140.15	57.64	70.86
August	624.29	485.59	138.70	77.78	424.74	344.42	80.32	81.09	199.55	141.17	58.38	70.74
September	627.93	490.32	137.61	78.09	427.98	348.77	79.21	81.49	199.95	141.55	58.40	70.79
October	641.21	498.84	142.37	77.80	435.70	354.93	80.77	81.46	205.51	143.91	61.60	70.03
November	653.20	507.19	146.01	77.65	442.75	360.87	81.88	81.51	210.45	146.32	64.13	69.53
December	675.38	519.33	156.05	76.89	447.30	365.14	82.16	81.63	228.08	154.18	73.90	67.60

Explanation:
1. The urban savings deposits included urban savings of the People's Bank, fair town savings of the Agricultural Bank and savings from overseas Chinese agencies of the Bank of China.
2. Because the savings from overseas Chinese agencies of the Bank of China were not classified into fixed or current deposits during collection, they were all counted as urban fixed deposits.

CHINA'S PRICES IN 1982

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 94-III 96

[Article by Zhang Qi [1728 4388] of the National Price Bureau]

[Text] In 1982, our country's prices became further stabilized. The gross index of retail prices throughout the country only increased by 1.9 percent compared to the preceding year. The scope of increase in the list prices of the state-run commerce, the negotiated prices and the fair trade prices was the smallest in the recent 3 years. The retail price index for the past 3 years is as follows (with last year being 100):

	1980	1981	1982
Gross index for retail prices	106.0	102.4	101.9
Index of list prices in the retail sales of the state-run commerce	104.4	101.3	101.3
Price index for commodities under negotiated prices	110.6	103.5	100.5
Prices index of fair trades	102.0	106.6	103.5

Stabilizing prices is a matter of great concern for the people throughout the country. In December 1981, at the Fourth Session of the Fifth NPC, the decision concerning the government work report asked that the State Council guarantee basic stability in prices in 1982. For this purpose, the State Council and the local government at various levels, price organs at various levels and the various economic departments adopted a series of measures to strengthen price control. These measures included primarily the following:

I. In Economic Work, We Further Implemented the Principle of Readjusting, Restructuring, Consolidating and Improving. The Situation of the National Economy Was Excellent. The Situation Involving the Balance Between Financial Revenue and Expenditure, Balance Between Credit and Loans and Balance Between Commodity Supply and Demand Markedly Improved. Having realized a basic balance between financial revenue and expenditure in 1981, we continued to maintain a basic balance in 1982. We were able to control the issuance of currency and to basically fit the amount of monetary circulation on the

market in with the volume of supply of social commodities. We were able to satisfy the supply of commodities which had for a long time been in shortage. In some places, due to an abundant supply, some light and textile industrial products, such as synthetic fiber products, electric fans, plastic shoes and transistor radios were successively sold at reduced prices. This thus greatly curbed the tendency of price inflation of the past few years due to a shortage in the supply of many commodities. This was an important new change in market prices in our country after many years and was the most important reason why we were able to further stabilize our country's prices.

II. We Implemented Strict Centralized and Unified Control Over Market Prices. On 8 January 1982, the State Council issued a "Notice on Resolutely Stabilizing Market Prices," which centralized the authority to raise the retail prices of industrial and agricultural products on the State Council. All the localities, departments and enterprises would not have the authority to make decisions on raising the list prices stipulated by the state. It was also decided that the retail prices of commodities under negotiated prices in the cities could only be lowered and not raised. At the same time, it asked that an inspection be carried out on the implementation of prices throughout the country.

The local governments at various levels and the various economic departments all conscientiously implemented the notice by the State Council, and strengthened their supervision, inspection and control over prices. Under the leadership of the party and government, the price control departments at various levels regarded with paramount importance the work of strengthening the supervision and inspection of prices and of guaranteeing the basic stability of prices. The various localities even mobilized a large number of cadres and people as well as people's representatives and members of the political consultative conference, workers' and youth and women's associations and other mass organizations to conduct widespread and thorough inspection of the situation of the enterprises in implementing the price policy. Roughly 1 million people throughout the country took part in the work of inspecting prices, discovering over 10,000 cases that violated the price policy. Then, according to the seriousness of each case, criticism and education as well as economic penalties and administrative disciplinary measures were separately carried out. The price inspection throughout the country played a major role in stabilizing prices and protecting the interests of the masses and won popular support. The implementation of the method of integrating control by full-time cadres with supervision by the masses over market prices was an important experience for our country in respect to controlling prices in recent years.

In order to guarantee the basic stability of market prices, the state also adopted some measures to lower prices. In mid-January, the prices of a number of industrial products for daily use were lowered; for instance, wristwatches by 20 percent, television sets by 5-10 percent, and transistor radios and stretch woolen goods. In July, the prices of 266 new brands of cigarettes were lowered, with the price of each box being lowered by 0.05-0.08 yuan. In addition, in October, the prices of some local famous wine, wine of outstanding quality and wine of average quality were lowered, with an average of 0.30 yuan less for each bottle. These several instances of

price reduction were favorable to stabilizing the general level of market prices.

III. We Adopted the Principle of Basic Stability in the Procurement Prices for Agricultural Products. In the total value of retail sales of social commodities in our country, agricultural products and industrial products using agricultural products as raw materials constituted roughly 70 percent. Thus, any change in the trend of the procurement prices for agricultural products is of utmost important influence to the stability of the retail prices. The increase of procurement prices for agricultural products by a wide margin will inevitably bring about an inflation in the retail prices. The stability in the procurement prices for agricultural products is therefore an important factor for the stability in the retail prices. Since the 3d Plenary Session of the 11th CPC Central Committee, in order to develop agricultural production, the state raised the procurement prices for agricultural products by a wide margin, and also implemented surplus procurement at higher prices and procurement at negotiated prices for some agricultural products. Compared to 1978, in 1981, the general level of procurement prices for agricultural products was up 38.5 percent. After the price increase for agricultural products, in order to maintain a basic stability in the retail prices, the state adopted all kinds of measures to control the retail prices, such as financial subsidies, lowering of tax rates and cuts in the profits of industrial and commercial enterprises. For instance, after the procurement prices for grain and edible oil were raised, the sales prices remained unchanged. The losses that resulted were subsidized by the state finances. After the prices for sugarcane, beet and other sugar products were raised, in order to prevent the price increase for edible sugar, the tax rate for edible sugar was lowered by 20 percent, and so on. However, due to the fact that the increase in the procurement prices for agricultural products in the last few years involved too many varieties and too broad a scope, although the state adopted the above measures to control the inflation of retail prices, inflation of retail prices still took place involving many commodities, such as foodstuffs, bamboo, timber and leather products. This was an important reason for the price inflation on the market in our country in the last few years.

Since 1982, the state has implemented the policy of basic stability in the procurement prices for agricultural products. Besides carrying out appropriate readjustment on the prices of individual agricultural products which were obviously unreasonable, no price increase was carried out on a general scale. In the political report of the 12th CPC Congress, it was clearly announced that we could no longer increase peasant incomes mainly through raising the prices of farm produce or through lowering the fixed quotas of state purchases and enlarging the scope of negotiated prices. This was a major change in the policy concerning the procurement prices of agricultural products in our country. This change signified that the policy decision at the 3d Plenary Session of the 11th CPC Central Committee on raising the procurement prices for agricultural products had already been smoothly implemented with marked results. The price ratios for exchange between industrial and agricultural products were narrowed, and the peasant's livelihood improved. Generally speaking, the present level of procurement prices for agricultural products, appreciated by the large number of peasants, can meet the needs of further

developing agricultural production and gradually raising the peasant's standard of living. As a result of implementing the policy of basic stability in the procurement prices for agricultural products, since 1979, the trend of price increase for agricultural products by a wide margin for years on end basically came to an end. The index of the procurement prices for agricultural products in 1979 was 22.1 percent higher than that of 1978; in 1980, 7.1 percent higher than 1979; in 1981, 5.9 percent higher than 1980; and in 1982, only 2.2 percent higher than 1981. We were able to control the procurement prices for agricultural products. This was an important factor as to why we were able to realize a basic stability in the retail prices in 1982.

IV. The State Finances Continued To Appropriate Large Amounts of Funds in Support of Stabilizing Prices. In 1982, the state continued to implement subsidies on the prices of such important daily necessities as grain, edible oil, cotton, vegetables, fish, meat and coal for daily use, thereby maintaining stability in the prices of these basic daily necessities. The amount of subsidies that was paid totaled some 25 billion yuan, which was roughly equivalent to about 10 percent of the total value of retail sales of social commodities. That is to say, if we did not have this large amount of price subsidies by the state, the level of retail prices throughout the country would have at least inflated by about 10 percent. Thus, this was an important measure in maintaining the basic stability in prices. Of course, if we relied for a long period of time on large amounts of subsidies to stabilize prices, we would bring about difficulties in the balance between financial revenue and expenditure. From a long term point of view, it would be unfavorable to the sustained stability in prices, and might even become a potential factor for price inflation. Thus, we must strictly control the scope and amount of price subsidies, and gradually rectify the variety and scope of subsidies under the prerequisite of not affecting the basic stability in prices.

In 1982, because the state adopted a series of measures to develop industrial and agricultural production, balance financial revenue and expenditure, control the issuance of currency and strengthen the supervision and control over prices, and because it utilized the method of comprehensive treatment to eliminate the factors for price inflation, it victoriously realized the policy decision of the NPC on guaranteeing basic price stability. The retail prices throughout the country for 1982 were the most stable in recent years. However, the foundation for the basic stability in prices was still not solid. The basic stability in prices was realized on the basis of an irrational price system that relied to a great extent on administrative control. Both in terms of the overall situation of the national economy and in terms of the price system itself, there exist many factors for price inflation. In order to continuously maintain a basic stability in prices, we must still overcome many difficulties and must continuously adopt new measures to solve new problems.

In 1982, while concentrating our major effort on realizing basic price stability, we also carried out some minor readjustments and reforms on the irrational price and price control systems.

In readjusting irrational prices, we primarily raised the electricity prices of the northeast, north China and east China regions where electricity supply was in shortage. Of this, the prices for use of electricity by the 30 large-scale enterprises in the metallurgical, chemical industrial and petroleum trades in the northeast region as well as by the four products that consume high energy, namely ferroalloy, caustic soda, calcium carbide and electrolytic aluminum were separately raised by 14 percent to 83 percent. We canceled the special electricity prices for the east China, northeast and other regions in the production of ferroalloy, electrolytic aluminum and calcium carbide. We offered special electricity prices to the northwest and southwest regions where there was more hydroelectricity and where there was a relatively abundant supply of electricity. This measure was favorable to gradually shifting the enterprises which were producing products that consume much energy to those regions with a relatively abundant supply of electrical power, thereby regulating the balance between energy supply and demand among the regions. Furthermore, we also readjusted the prices of some high-quality steel products, nonferrous metal, machinery, meters and Chinese and Western medicines. However, we lowered more prices than raised them, thereby affecting the overall price level minimally.

In respect to price reform, the new measures adopted were: the state no longer stipulated the prices for the small commodities among the industrial products, but instead implemented market regulation and let the production and business enterprises change their own prices according to cost, supply and demand. This corrected the previous shortcomings of overcentralization and excessively strict control. This was an important measure in vitalizing the economy. There were 11 categories of small commodities among the industrial products that implemented market regulation and fixing of prices by the enterprises, namely: small general merchandise, small cultural articles for daily use, small knitwear, small hardware for civilian use, small A.C.'s for civilian use, small chemical industrial products for civilian use, small miscellaneous articles of daily use, small foodstuffs, small medicinal products, small farm tools and small commodities from the articles of daily use by the nationalities. The sales volume of these small commodities, in terms of the entire country, constituted less than 10 percent of the total value of retail sales of social commodities. This was consistent with the general principle of our country of letting planned economy play the leading role and market regulation the supplementary role. In order to prevent the simultaneous price inflation of a large number of small commodities in the process of reform, the method of releasing these commodities gradually by stages and in groups was adopted. The State Council approved the first group of 160 small commodities for the implementation of price fixing by the enterprises, among which 20 were small knit and cotton textile goods, 56 small general merchandise, 22 small cultural articles of daily use, 15 small hardware for civilian use, 18 small A.C.'s and 29 small miscellaneous articles of daily use.

We scored marked results after implementing price fixing of small commodities by the enterprises. We opened up sales for some unmarketable products by lowering the prices in time. We restored and developed the production of some varieties which suffered losses for a long period of time and appropriately raised their prices. Many places increased the output as well as the designs,

colors and varieties of the small commodities, and also put back on the market some small commodities which had not bee produced for many years.

The nine cities of Tianjin, Baoding, Shenyang, Wuhan, Hengyang, Xian, Suzhou, Wenzhou and Hefei, which were involved more heavily in producing small commodities, implemented price fixing by enterprises involving 2,560 kinds of small commodities (including overlapping varieties). They lowered the prices of 536 kinds and increased the prices of 121. In short, the implementation of market regulation and price fixing by enterprises involving the prices of small commodities promoted production, increased supply and made things convenient for the masses. It was a successful policy.

In respect to price control, in September 1982, the State Council issued the "Provisional Regulations on Price Control." This was the first set of more systematic regulations on price control in our country. These provisional regulations pooled together the major experiences in price control work since the nation's founding, and stipulated the basic principle which we should abide by in price control at the present stage. They stipulated the duties and limits of authority of the State Council, the local government at various levels, the price control organs and the various economic departments as well as enterprises in formulating and readjusting prices. They stipulated the system of supervision and inspection over prices and the method of rewards and penalties.

The announcement and implementation of the "Provisional Regulations on Price Control" provided the regulations for us to abide by in price control work, and played an important role in correctly implementing the state's price policy, guaranteeing the basic stability in prices and correctly making use of prices as a lever to serve socialist modernization.

9335
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CHINA'S URBAN LABOR EMPLOYMENT WORK

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 96-III 97

[Article by Tang Yunqi [0781 0061 2978]]

[Text] In 1982, with the development of the socialist construction cause on the various fronts, we again made new progress in our work in urban labor employment.

I. We Further Solved the Problem of Urban Labor Employment

In October 1981, the CPC Central Committee and the State Council made a "Decision on Tapping New Sources, Vitalizing the Economy and Solving the Problem of Urban Labor Employment," in which they summed up the experiences in the work of urban labor employment since the 3d Plenary Session of the 11th CPC Central Committee, proceeded from the implementation of the strategic policy decision of the coexistence of diversified economic modes, further stipulated the principles, policies and measures on solving the problem of urban labor employment, and opened up a broad prospect for the development of the work in labor employment in our country. In 1982, the various localities and departments took the implementation of this document as the key, continued to tap new sources, developed the economy and worked hard to create a new situation for the work of labor employment. In 1 year, 4.75 million unemployed young people throughout the country were placed. Together with the personnel under state unified distribution, the total number of newly employed in the cities and towns throughout the country was over 6.2 million people. This meant that, since 1979, a total of over 32 million people were placed in the cities and towns throughout the country. By the end of 1982, 23 provinces, municipalities and autonomous regions basically placed the unemployed personnel that had been accumulated since before 1981. That is to say, since the "Great Cultural Revolution," the large number of unemployed young people have mostly taken up jobs, and the focus of our employment work has been shifted onto the placement of the young people who have come forth in the last 1 to 2 years. For instance, in 1982, Jiangsu Province placed 173,000 people, roughly 60,000 of whom constituted the labor force that had grown to maturity that same year. This situation shows that, for a long period of time, the problem of labor employment which was a prominent contradiction in our country's political and economic lives, has begun to be solved.

II. The Structure of Employment Continued To Improve Slightly

Since the 3d Plenary Session of the 11th CPC Central Committee, employment work was carried out in integration with the readjustment of the structure of the system of ownership and the industrial structure. With the readjustment of the structure of the system of ownership and the industrial structure, we gradually changed the situation in the nonagricultural labor employment structure that was not rational enough, and enabled the proportion between the staff members and workers of the industrial, especially heavy industrial, departments and the laborers of other departments to develop in the direction of harmony. In 1982, the employment structure was further improved. In respect to the structure of the system of ownership, the number of staff members and workers of the system of ownership by all people increased to 86.3 million people, 3.1 percent over the preceding year. The staff members and workers of the system of collective ownership increased to 26.51 million people, 3.3 percent over the preceding year. There were 1.47 million urban individual laborers, 30 percent over the preceding fiscal year and 9 times over 1979. In respect to the industrial structure, compared to 1981, in 1982, the employed personnel of the industrial enterprises increased by 2.4 percent; the employed personnel of the catering and service trades by 4.3 percent; the employed personnel of the urban public works and banking and insurance professions by 4.3 percent; and the employed personnel in culture, education and public health work by 2.1 percent. This change in the industrial structure produced a positive effect on making the economy prosperous and making things convenient for the people's livelihood.

III. New Development in Labor Service Companies

By the end of 1982, there were 12,000 labor service companies throughout the country, 4,400 more than 1981. The companies run by the labor departments at various levels constituted one-third, while those run by professional units as well as government organs, groups, schools and army units constituted two-thirds of the total. The number of unemployed personnel organized and placed by the labor service companies increased from some 3.2 million people in 1981 to over 4.1 million in 1982. Of this, over 2.6 million people were employed by the collective enterprise and professional units run by the labor service companies. Over 600,000 people attended all kinds of preemployment training classes. Over 800,000 people took up temporary jobs. In light of the current trend of development and the plan for reform of the labor system, in the future, in addition to organizing the young people who were of working age and were seeking employment to undergo preemployment training, the labor service companies should also manage the other unemployed personnel in society and the surplus labor force of the enterprises, and give play to an even greater extent to the role of the labor force as a "reservoir."

IV. New Development in Preemployment Training and Organization Work

An important aspect in the reform of the labor system is to adopt a definite form to organize the unemployed young people to undergo training and make proper preemployment preparations. This is also a link which we must not overlook in respect to developing the production and construction causes, to

to raising the quality of the workers' rank and to fostering a fine mood of society. After several years of hard work, a definite foundation was laid in the work of preemployment training in the various localities. Currently, over 20 cities throughout the country have set up employment training centers and have begun to conduct training on preemployed young people on different scales, enabling these young people to not only learn politics and culture, but also learn specialized technologies, undergo part work, part study, and integrate work with study. The completion of one's study does not automatically mean distribution. In accordance with the "three-in-one" employment principle, the employment unit selects the outstanding and employs them through testing and assessment, or the individual organizes with other individuals for employment or seeks employment on his own.

The preemployment training work in 1982 included the following new characteristics: 1) The modes of employment training were more diversified and more attention was paid to meeting the needs of reality. For instance, in addition to the professional training classes run by the technical-vocational training center, Suzhou City in Jiangsu Province also entrusted the industrial and mining enterprises with the task of training unemployed young people in light of the needs of society. In 1982, nearly 5,000 students were trained by nearly 200 enterprises in all categories of work. This was equivalent to roughly 70 percent of the total number of young people who required arrangement for employment that year. 2) Some cities basically attained the goal of training first and employment afterwards. For instance, Siping City in Jilin Province preliminarily set up an employment training network encompassing the entire city. All unemployed young people must undergo employment training before being assessed and employed by the employment unit, or before they can organize together for employment or seek employment on their own. From 1980 to 1982, that city ran a total of 103 training classes of all types, including training in 60 professions, and trained 5,155 unemployed young people, 90 percent of whom were subsequently employed. Of this, 71.6 percent were employed by the employment units through assessment, 13.6 percent were those who voluntarily organized together for employment, 11.1 percent sought employment on their own, and 3.7 percent took up temporary jobs. 3) The preemployment training and organization work began to develop in the new-style labor reserve system. In 1982, many city labor service companies conducted census and registration on the unemployed young people and set up files and cards on them, and organized them to study or to take up labor with a certain amount of remuneration. The Ministry of Labor and Personnel also dispatched a notice asking for the trial-running of the work of registration control on the urban unemployed personnel throughout the country as of January 1983, in order to strengthen professional training and employment counseling.

V. The Various Localities and Various Departments Began To Pay Attention to the Problem of Economic Results in Employment Work

In the last few years, due to the great pressure from urban labor employment, people overlooked the effect of large-scale arrangement of unemployed personnel on the economic results. In 1981, the CPC Central Committee and State Council made a decision on solving the problem of urban employment, and put forth the demand to gradually reform the economic system and labor system of

the state-run enterprises in order to effectively raise the level of business management and economic results. After this, the various localities and various departments began to attach importance to this problem and adopted several specific measures accordingly. For instance, the enterprises were instructed to run labor service companies and livelihood service companies properly and tap new sources for employment. As for the demobilized armymen and armymen transferred to civilian work who were under the unified distribution by the higher level, the higher-level departments in charge conducted training and assessment and distributed work appropriately according to working requirements and results of assessment, and so on. In November 1982, the Ministry of Labor and Personnel convened an experience-exchange meeting on the arrangement for employment by enterprise and professional units. At the meeting, the attendants carried out study on such issues as how the state-run enterprise and professional units supported the development of the collective economy and ran labor service companies, as well as how, in the midst of rectification, the enterprise made appropriate arrangements for surplus labor and unemployed children of workers. The conference proposed to integrate the raising of the enterprise's labor productivity and economic results with the expansion of the rate of social labor employment, and to work hard in the direction of raising the overall socioeconomic results. It also put forth concerned principles and policies. After working hard for several years to arrange for employment of most of the unemployed personnel who had been accumulated from the past, an important development of the guiding thinking in employment work was to immediately put the issue of economic results in employment on our agenda.

In 1982, although great achievements were scored in the work of urban labor employment, a great many difficulties and obstacles still existed in the work. The major problems in this respect were: Some places failed to implement vigorously enough the principle of the party Central Committee on the long-term coexistence of the diverse economic forms. They failed to solve many of the problems in regards to the policies and measures on developing the collective economy and individual economy. Consequently, a series of obstacles existed in encouraging employment of unemployed personnel with the collective economy and individual economy. Presently, although the number of people in the cities who require arrangement for employment has dropped somewhat, our task is still rather arduous. In the future, we should act in accordance with the line and principle stipulated by the 12th CPC Congress, continuously strive to create better conditions for the long-term coexistence of the diverse economic forms in the urban economy, do a good job of the reform of the labor system and the rectification of the enterprise labor organization, and strengthen the leadership in employment work and the building of labor service companies, in order to further create a new situation for the work of urban labor employment.

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SITUATION IN LAUNCHING REGIONAL ECONOMIC AND TECHNOLOGICAL COOPERATION

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[Article by Yang Xuguang [2799 2485 0342], Xu Changzhong [6079 2490 0022] and Zhang Guangyi [1728 1639 5030] of the State Economic Commission]

[Text] In respect to the economy, our country has implemented the principle of opening up to the outside world and vitalizing the economy internally and has promoted the launching of regional economic and technological cooperation in a vigorous manner. In line with local conditions, the various localities have given play to their superiorities, developed their strong points and avoided their weaknesses, and popularly launched economic and technological cooperation with materials cooperation, technological cooperation and economic alliance as the major contents. This is a diverse, multichannel and multilevel form of cooperation. Beginning with materials cooperation, it has developed into an economic alliance with technological cooperation as the main body; developed from an isolated, temporary cooperation into a long-term and steady cooperation; and developed from cooperation through free integration to cooperation with organization and leadership. Currently, it has become an indispensable component part that remedies the state plans, and has become a healthy form of economic cooperation that is necessary for promoting the development of the national economy. Incomplete statistics throughout the country showed that, in the last 2 years, 6,070 economic and technological cooperation projects were concluded, among which 2,613 were technological cooperation projects, with over 3 billion yuan of value in materials cooperation. In addition, the localities jointly invested 2,867,000,000 yuan with the water conservancy and power, coal industrial, railroad and construction materials departments in running power plants, mines and railways. The realization of these cooperation projects has effectively promoted the development of production and construction, economic prosperity and scientific and technological progress, and has raised the economic results.

I. The Contents of Cooperation

The contents of economic and technological cooperation include primarily the following three aspects: Materials cooperation, technological cooperation and economic alliance. No hard and fast line can be drawn among these three types of cooperation. Instead, they are often carried out in an interwoven pattern. Beginning with materials cooperation, we have currently developed a "three-in-

one" cooperation with technological cooperation as the main body that includes materials cooperation and economic alliance. In regard to materials cooperation, we have developed from cooperation involving the means of production to cooperation involving the means of livelihood. In regard to technological cooperation, we have developed from technological service to technological transfer and compensation trade. In regard to economic cooperation, we have developed from joint investment and operation to economic alliance that goes beyond the boundaries between provinces, municipalities and departments. These three types of cooperation are still developing continuously in scope and in depth.

II. The Forms of Cooperation

There are five main forms of cooperation:

1. Technological Service: The scope of technological service is very broad. It involves the aspect of technology and also the aspect of business management. There are primarily two forms: One is "inviting others to come in"; the other is "going out ourselves." "Inviting others to come in" means the industrially more advanced regions will dispatch technological forces and management cadres to the backward regions to offer guidance in terms of production technology and business management. "Going out ourselves" means the backward regions will dispatch personnel to the advanced regions to study and learn from other's experiences. This type of cooperation is simple, convenient and easy to carry out, with fast results. In the last 2 years, the coastal regions and the hinterland mutually dispatched a large number of technological personnel to carry out mutual guidance and study and scored very good results in raising technology and fostering skilled personnel.

2. Compensation Trade. Generally, the technologically more advanced regions or enterprises will provide the technology, funds and equipment, while the backward regions will carry out compensation by installments with raw materials and semifinished or finished products. This type of cooperation is favorable to giving play to the respective economic superiority of the advanced regions and the backward regions, and to letting the two supplement each other, each having a role to play.

3. Technological Transfer. Generally, it involves the transfer of advanced-level scientific and technological results to other departments or units. The transferring unit will obtain compensation fees for transfer. Currently, there are three main types: Comprehensive technological transfer; individual technological transfer; and individual items of technological service. This type of cooperation brings about fast results and good economic results in raising the level of production technology of the backward regions.

4. Joint Investment and Operation. This means the two cooperative parties will make investment jointly, carry out business management jointly and distribute economic interests jointly. Generally, the technologically more advanced coastal provinces, municipalities or enterprises will provide the funds, technology, equipment or parts, while the hinterland will provide the factory buildings, work site, labor force and raw materials. Profits will

be shared according to the investment ratio. With this type of cooperation, the economic interests of both parties are identical, the alliance is relatively close and the economic results are generally better.

5. Economic Alliance. This means shattering the boundaries of the system of ownership by region or department and organize supply, production and sales in an integrated manner according to the principle of cooperation among specializations. Currently, there are only a few alliances of this type, but there is a trend of continuous development.

In addition, there are other forms that are in the process of development, such as export of labor service, exchange of skilled personnel, training of specialized personnel by others as well as joint efforts in organizing scientific and technological breakthroughs and in manufacturing name brands and products for export.

III. Economic Results

The marked economic results are primarily manifested in the following five aspects:

1. We Gave Play to the Superiority of the Various Localities, Tapped the Potentials and Vitalized the Economy. The economic and technological development in our country is unbalanced. The 29 provinces, municipalities and autonomous regions all have their own characteristics and their own superiorities. Through launching regional economic and technological cooperation, we shifted the advanced technology of the coastal regions into the hinterland and fully utilized the material resources and energy resources of the hinterland, tapped the potentials, vitalized the economy and raised the economic results of the whole society. Shanghai has advanced technology and equipment and fine product quality. It is superior to the rest of the country. But it weaknesses include a shortage of material resources, a shortage of energy resources and overpopulation in the city. In the last 2 years, Shanghai has launched economic and technological cooperation with 17 provinces, municipalities and autonomous regions, including Yunnan, Guangxi, Hubei and Heilongjiang, and has concluded over 200 economic alliance projects and transferred 3,600 scientific and technological results. It not only has supported the hinterland's economic development, but has increased the sources of materials which have been in short supply. In recent years, it has imported in a cooperative manner from other provinces and municipalities 47 types of materials, including coal, timber, cement, tin and leather, which have remedied the shortage in economic construction. Tianjin Municipality has two major superiorities--technology and harbor. Revolving around the establishment of the three cooperative bases in raw materials, products for export and supply of nonstaple foodstuff, it took technological cooperation as the key and launched diverse forms of alliance and cooperation. In the last 2 years, it successively dispatched 10 economic cooperation delegations, 7 economic cooperation groups and 10 economic and technological investigation groups to 18 provinces, municipalities and autonomous regions to carry out negotiations on and implement economic cooperation projects. Currently, 739 cooperation projects have been concluded, of which 339 were technological cooperation projects and 175 were economic

alliance projects. While supporting the economic and technological development of other places, it brought in, through cooperation, 72 types of materials which were in shortage for production and construction, with a total value of 270 million yuan. This played an important role in guaranteeing production and construction. Yunnan had the material resources for developing such heavy industries as energy, metallurgical industry and chemical industry. But its science and technology were relatively weak. In the last 2 years, it successively signed agreements with 18 provinces and municipalities on 372 cooperation projects, among which 333 were technological cooperation projects and 15 were economic alliance projects. Among these projects were: Compensation trade for Shanghai's investment of 1.54 million yuan in jointly carrying out retrieval of tailings of tin mines; the No 2 Automobile Factory invested 1.5 million yuan in carrying out joint production of lead, while Yunnan made compensation with the No "40" tin solder; Qinghai Province and Shanghai Municipality separately invested 1.5 million yuan in building the Xiaguan and Simao tannin extraction factories; and, the Ministry of Coal Industry and Yunnan jointly developed the Xiaolongtan Coal Mine. All these were under construction. They created the factors for developing and utilizing Yunnan's material resources. Animal husbandry, leather and forestry were developed in Nei Monggol. In the last 2 years, it successively carried out consultation with Beijing, Tianjin, Shanghai, Jiangsu, Zhejiang and other provinces and municipalities on 125 cooperation projects, among which 103 were technological cooperation projects and 22 were economic alliance projects. Currently, 16 of the economic alliance projects have been implemented. In addition, Huhehot and Wuxi have set up long-term cooperation relations and reached agreement on 76 cooperation projects which Nei Monggol signed with fraternal provinces and municipalities was some 60 million yuan, which was equivalent to 50 percent of the investment in capital construction distributed by the state in 1982.

2. We Solved the Problem of Inadequate Supply of Some of the Materials Which Were in Short Supply in the Country, and Guaranteed the Fulfillment of the State Production and Construction Tasks. Many provinces and municipalities revolved around the problem of solving energy and materials in shortage in launching economic and technological cooperation. They used advanced technologies or other forms to exchange for energy, shifted the enterprises and products that consumed much energy to the regions where there was an abundant supply of energy, solved the inadequate supply of energy and materials in shortage, and guaranteed the fulfillment of production and construction tasks. For instance, Jiangsu Province consumed 30 million tons of coal every year. What it produced itself, plus what was distributed by the state, only amounted to 18 million tons, which meant a shortage of over 10 million tons. Through cooperation, it imported in a cooperative manner 6-7 million tons of coal, one-fourth of the amount of consumption. This was an important source of remedy for the inadequate distribution according to the state plan, and played an important role in guaranteeing the speed of growth at 7-8 percent each year. Zhejiang Province is a province that suffers from a shortage of coal. The distribution within the plan every year was inadequate. In recent years, through cooperation, the problem of 1 million tons of coal was solved every year, offering an indispensable material factor for guaranteeing the continuous growth in industry and agriculture. The north China region exported in a cooperative manner nearly 10 million tons of coal every year to

Jiangsu, Zhejiang and Shanghai, which could create 25 billion yuan in output value. Shanxi Province transported out 7 million tons of coal in a cooperative manner every year, 2 million tons of which were used in carrying out materials cooperation with other provinces. The value of the major materials that were imported in a cooperative manner totaled 110 million yuan. These materials were primarily timber, cement, plate glass, steel products as well as raw materials for chemical industry, textile industry and light industry and other materials in shortage as well as some means of livelihood, thereby solving the inadequate supply of materials needed by the coal mines, improving the people's livelihood and guaranteeing the fulfillment of the state plans. In addition, Yunnan, Guizhou and other provinces, municipalities and autonomous regions imported in a cooperative manner materials in shortage with a value of some 200 million yuan every year, thereby guaranteeing the needs of production and construction that same year. Tianjin Municipality shifted the production of calcium carbide, which consumed much energy, to a joint operation and production with Shanxi, where there were relatively abundant energy resources. Tianjin supplied the equipment and technology, while Shanxi strove to supply Tianjin with 40,000 tons of calcium carbide in 1983. In this way, in 1983, Tianjin could lower the consumption of electricity by 140 million kWh, which constituted roughly 3 percent of the industrial consumption of electricity, and saving 50,000 tons of raw coal.

3. We Applied and Popularized the Advanced Technologies and Raised the Scientific and Technological Levels. Currently, technological cooperation and technological transfer have become the primary forms of shifting advanced technology from the coastal regions to the hinterland. In this respect, Shanghai, Tianjin, Jiangsu and Wuxi City scored more prominent results. In the last few years. Shanghai has shifted over 3,600 scientific and technological results to the hinterland as well as other provinces, municipalities and autonomous regions. Most of these projects yielded positive results. For instance, Shanghai's sewing machine trade has enjoyed 80 years of history. It has occupied the first position among the same trade throughout the country in terms of production technology, operation techniques and management level. In the last few years, this company has successively signed technological transfer contracts with repayment with the sewing machine trade in Luoyang, Xuzhou, Wuhan, Kaifeng, Xiangfan, Weifang and other cities. With Shanghai's assistance, the Luoyang and Wuhan sewing machine factories solved the technological crux, improved technology, built an installation line and doubled and redoubled output as well as improved quality markedly. Tianjin's rug sells well on the international market, but the supply of wool is inadequate. In order to popularize technology and expand sales, the Tianjin Foreign Trade and Rug Company and the Qinghai Provincial Handicrafts Company added a woolen yarn workshop with an annual output of 400-500 tons at the Qinghai No 2 Rug Factory. Tianjin provided 900,000 yuan of foreign exchange to import equipment from Japan and offered technological guidance at the same time. In June 1981, the workshop entered production. In the next 4 years, it can produce 1,600 tons of woolen yarn. Qinghai will keep 1,000 tons and will supply 600 tons to Tianjin. With this, Tianjin can weave some 90,000 square meters of rug, which can create $11 million of foreign exchange through export. Qinghai Province not only raised its technology and developed production, but will be able to obtain 1 million yuan in taxes and profits every year from the

production of woolen yarn for rugs. The Kunming Glass Fiber Factory introduced the scientific research results of the Shanghai Building Research Institute and successfully trial-manufactured such new products as the "801" glue and the "803" paint. After small-scale production and sales, these products were well received by consumers and were able to increase 120,000 yuan in output value and 25,000 yuan in profits.

4. We Improved Business Management and Developed Those Products With Competitive Capacity. In order to produce more products with higher competitive capacity, many places regarded cooperation in this respect as the focus. In particular, the border regions, where technology was relatively weak, carried out economic and technological cooperation with the coastal regions, thereby improving business management, developing variety, raising quality and promoting the marketability and competitive capacity of the products. Through carrying out technological cooperation with their own trades in Shanghai, Tianjin, Changzhou and other cities, Yunnan's Zhaotong Rug Factory, the Tianxi Textile Mill, the Kunming Thermos Flask Factory and the Yunnan Printing and Dyeing Factory raised their product quality, lowered cost and greatly raised their economic results. The Kunming Thermos Flask Factory and the Tianxi Textile Mill were able to raise the rate of top-grade products from 30 percent and 69 percent to 65 percent and 99 percent, respectively, and to expand their sales accordingly. The Tianxi Textile Mill increased its annual output value by 2.08 million yuan, with an increase of 420,000 yuan in profits. The Kunming Thermos Flask Factory increased its profits by 250 percent. Nei Monggol's Huhehot Foodstuff Factory produced a soy sauce of poor quality with high consumption and low output. Through the technological assistance of Tianjin's Guangrong Soy Sauce Factory, it improved its technology and changed the proportion of mixture of raw materials, raising the fermentation rate by 50 percent and raising the soy-producing rate of every kilogram of primary material by 8.6 percent. It produced 300,000 more jin of soy sauce with the original raw material, with quality meeting the criteria set by the ministry. It solved the problem of inadequate supply of soy sauce and the enterprise went from suffering losses to making a profit of 69,000 yuan.

5. We Fostered Skilled Personnel in Specialized Trades and Technology and in Business Management. Through launching economic and technological cooperation, many places fostered a large number of skilled personnel in specialized trades. This was an important result. There were many means of fostering skilled personnel. The primary means were: 1) Invite technological personnel and management personnel from the supporting provinces, municipalities and autonomous regions to run professional and technological lectures to impart knowledge in technological production and management experience. 2) Let the personnel from the supporting provinces and municipalities guide us in work while we work and learn simultaneously. 3) The supporting provinces and municipalities would run continuing education classes to help train workers, technological personnel, teachers and medical personnel. For instance, in supporting Yunnan's management cadres and technological personnel, Shanghai Municipality conducted technical-vocational lectures for concerned specialized personnel in Yunnan and also helped train over 6,700 college and vocational instructors, middle school teachers and medical personnel. In the last 2 years, the Shanghai institutions of higher learning enrolled over 100 students

from Yunnan outside the plan. The Shanghai Costume Company dispatched a technological teaching group to Kunming to conduct vocational classes on clothing technology, and trained 152 students in the clothing trade in the 67 counties and cities throughout the province. These students learned the costume design and cutting technology of 40 varieties of men's clothing, women's clothing and children's clothing. All these played an important role in promoting the development of science and technology as well as culture in the minority nationality regions. In addition, Tianjin, Wuxi, Suzhou and other provinces and municipalities also trained a large number of technological personnel for various localities. Tianjin Municipality trained over 1,600 technological personnel for 40 trades and over 100 enterprises in various localities. In particular, the Tianjin Bicycle Factory and the Tianjin Woolen Textile Mill trained a large number of technological personnel for various localities.

In addition, through economic and technological cooperation, we scored marked economic results in respect to the rationalization of the economic structure and the improvement of industrial planning.

IV. Basic Experiences

There are primarily five basic experiences in launching economic and technological cooperation:

1. Attention From the Leadership Is the Key To Vitalizing Regional Cooperation. The experiences of many places prove that the key to how regional cooperation is launched lies with the leadership, which in turn lies with the ideological understanding of the leadership. Some places had a clear understanding of the series of policies on vitalizing the economy that were implemented since the 3d Plenary Session of the 11th CPC Central Committee. They regarded regional cooperation as an effective measure to supplement the state plans and vitalize the economy and an important approach to accelerating the development of the economy. Their swift action and strong emphasis in work produced marked results. Other places failed to understand clearly the direction in launching regional cooperation. They felt that regional cooperation was not essential or embraced the thinking that "the loss outweighs the gain." They lagged behind in action. The reason why such provinces, municipalities and autonomous regions like Tianjin, Shanghai, Nei Monggol, Shanxi, Jiangsu and Yunnan did a good job was because their leadership attached importance to and emphasized the work personally, set up full-time organizations and equipped them with competent personnel, and launched the work in a vigorous manner. The secretary of the CPC Tianjin Municipal Committee personally emphasized the work. The municipal people's government established a leading group in economic cooperation, and set up an office in charge of economic cooperation. At the same time, it also decided to set up Tianjin offices in seven key cities, including Shanghai. In addition, it also vacated the 10-storey Lihua Building, which occupied over 10,000 square meters, to be used as offices by personnel from other provinces, municipalities and autonomous regions stationed in Tianjin. This expanded the scope and scale of regional cooperation, and further vitalized the economy.

2. Include Regional Cooperation in the Regional Plan and Carry Out Comprehensive Balance Accordingly. Currently, although regional cooperation involves large quantity and a large area, there are still many scattered and temporary cooperations with a certain degree of blindness. The primary reason is the failure to include regional cooperation into the entire regional plan and carry out comprehensive balance accordingly. The common experience of those regions where the work is carried out in a relatively proper manner is that regional cooperation is launched under the guidance of the state plans. Materials cooperation must be carried out under the prerequisite of guaranteeing the fulfillment of the state plans, with each supplying what the other needs and regulating surplus and shortage. Cooperation must not be carried out by using the materials within the state plans. We must implement the method of "one balance" and "two inclusions": That is, there must be a balance between the plan for regional materials cooperation and the state plan for materials distribution. The materials under state unified distribution for cooperation should be included in the local distribution plans, and the materials not under unified distribution should be included into the plan for local materials cooperation. We must have a balance between production, supply and sales in the jointly-operated projects, which should also link up with the concerned plans. We must not carry out projects that are not stipulated by the state. In this way, regional cooperation is conducted in a planned manner and step by step, and truly plays the role of supplementing the state plans.

3. Launch a "Three-in-One" Cooperation With Technological Cooperation as the Main Body as Well as Diverse Forms of Exchange. Currently, the main contents of regional cooperation are materials cooperation, technological cooperation and economic alliance. Materials cooperation is restricted by definite resources. Economic alliance is more complex and is restricted by such aspects as the existing system of organization, funds, taxation and profit-sharing. Technological cooperation, however, can attain fast and good results with little investment, and is easier to carry out. The experiences of many places prove that, using technological cooperation as the point of breakthrough can mobilize cooperation in other respects. However, carrying out technological cooperation in an isolated manner without materials cooperation as the factor often does not work either. Thus, we must still persevere in the "three-in-one combination" in putting emphasis on launching technological cooperation. In light of the reality of the region, Nei Monggol persevered in the method of three unifications in materials, technological and economic cooperation, which meant unifying planning, unifying management and making overall plans with due consideration for all concerned. It integrated the three kinds of cooperation, thereby promoting the launching of regional cooperation.

4. We Not Only Must Persevere in the Principle of Mutual Benefit, But Must Also Give Prominence to the Spirit of Mutual Support in Cooperation. The experiences of many places prove that we not only must persevere in the principle of mutual benefit, but must also give prominence to our style in order to vitalize regional cooperation. In this respect, Tianjin Municipality offered some experiences. In carrying out consultations on cooperation with other provinces and municipalities, Tianjin Municipality implemented the method of dealing with each case on its merits. This meant that it would

persevere in taking support as the key toward the regions which were designated by the state as focuses for support. Toward the economically less-developed regions, it would persevere in the implementation of preferential treatment and mutual benefit. Toward the economically more developed and technologically more advanced regions, it would implement mutual benefit. This meant not only persevering in the principle of mutual benefit, but also giving prominence to the spirit of mutual support in cooperation in accordance with the general strategic plan of economic development of the entire country. In so doing, we can bring about benefit to both parties in cooperation and can help vitalize regional cooperation.

5. Launch Regional Cooperation That Revolves Around Raising Economic Results. The experiences of the various localities prove that, in doing a good job of regional cooperation, we must pay attention to economic results and make sure that the state as well as both parties in cooperation can obtain economic benefits so as to be able to launch regional cooperation. In this respect, Shanghai Municipality has many experiences to offer. Its method was to persevere in taking the raising of economic results as the key, taking economic rationality as the principle, proceeding from the reality of both parties in cooperation, rationally utilizing manpower and material and financial resources, and developing products that were urgently needed by the state and on the market. It fully utilized the existing foundation of the enterprises, and, through renewal and transformation, filled up gaps, overcame the weak links, tapped production potentials and refrained from or minimized engagement in capital construction. In recent years, the cooperation projects which Shanghai Municipality carried out with the various localities throughout the country generally scored relatively good results. Shanghai Municipality launched technological cooperation with 586 counterpart enterprises in Hubei Province with generally higher economic results. There was marked improvement in the various technological and economic targets of the enterprises receiving support, including output value, output, quality, variety, cost and profit.

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REFORM OF THE ECONOMIC SYSTEM IN CHINA

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp III 108-III 111

[Article by Gao Shangquan [7559 1424 0356]]

[Text] The 12th CPC Congress put forth the strategic goal of quadrupling the gross value of industrial and agricultural output of 1980 by the end of this century in our country. To realize this great strategic goal, our productive forces must grow by a wide margin and our economic system must undergo an all-round reform. Through reform, we must enable the superstructure to adapt still more to the needs of the economic basis and enable the relations in production to adapt still more to the needs of the development of the productive forces, so as to fully mobilize and rationally channel the enthusiasm of the various aspects and promote an all-round upsurge of socialist economic construction.

During the First 5-Year Plan, our country established a socialist centralized and unified economic system.

Our country is a socialist country that implements a planned economy and objectively requires the establishment of a centralized and unified economic system. The socialist transformation of the system of private ownership of the means of production, the launching of key construction plans and the influence of the economic system of the Soviet Union further intensified the degree of centralization. The implementation of the principle of "unified leadership and decentralized management" over the public economy and the cooperative economy by the broad liberated zones and revolutionary bases as well as the tradition of the system of payment in kind, which was formulated in the protracted revolutionary wars, also had a definite influence on the formation of the centralized and unified economic system.

The major characteristics of this economic system are: Large-scale centralization and small-scale decentralization, large-scale unification and small-scale freedom. While establishing the absolute superiority of the economy under the system of public ownership, we permit the coexistence of diverse economic forms, implement "unified planning and decentralized management" of the state-run economy and implement effective centralized and unified management of capital construction. We implement a system integrating direct planning and indirect planning of the entire economy. This means to implement direct

planning of the state-run enterprises under the central authorities and the important products; implement indirect planning of some state-run enterprises under local authorities and private enterprises; and implement unified procurement and assigned procurement of several major agricultural products such as grain, cotton, edible oil and hogs and indirect planning of everything else with regard to agriculture. We attach importance to the role of economic levers, and make use of such economic measures as pricing, taxation and credit and loans to guide and transform agriculture and private industry and commerce as well as handicraft industry. Toward finance, materials and labor wages, we implement the system of management at separate levels with centralized management by the central authorities as the key.

This economic system has basically met the needs of the development of the productive forces under the present circumstance when the level of economic development in our country is relatively low and the economic structure is relatively simple. It has played an important role in centralizing financial and material resources and manpower, guaranteeing the smooth launching of key construction projects, effectively launching planned control, guaranteeing the planned and proportional development of the national economy, unifying financial and economic work, increasing financial revenues, curbing inflation, and guaranteeing the stability in market prices and the continuous improvement of the people's livelihood. During the First 5-Year Plan period, the average annual progressive increase in the gross value of industrial output was 18 percent, the average annual progressive increase in the gross value of agricultural output was 4.5 percent, the actual increase in the wages of the staff members and workers in the 5 years was 30.5 percent and the increase in the peasants' income was 20 percent. However, the economic system that was formulated during this period also had its limitations. In particular, during the latter stage of the First 5-Year Plan, the drawbacks of overcentralization and inflexible control of this system were further exposed. In terms of the system of ownership, the transformation was too abrupt and fast and the form was too simple and uniform. Especially in small-scale industry, small-scale commerce and handicraft industry, excessive merging took place. There were too many enterprises which were directly managed by the industrial departments under the central authorities. Power was overcentralized. The localities had too little authority over materials distribution, financial management, labor and personnel management and other aspects. The personnel in charge of the factory and mining enterprises had too little power of management of their own enterprises, in particular too little authority over production, supply and sales. Vertical control was overemphasized, which obstructed the horizontal relationships in the economy. All these affected the initiative and enthusiasm of the localities and enterprises.

In order to overcome these drawbacks, the State Council dispatched in November 1957 the "Regulations on Improving the Industrial System of Management," "Regulations on Improving the Commercial System of Management" and "Regulations on Improving the Financial System and on Dividing the Limits of Authority Between the Central and Local Authorities in Financial Management." The overall spirit was to transfer a portion of the power of industrial management, commercial management and financial management to the localities and enterprises in light of reality in order to bring their initiative and enthusiasm into full play.

Having undergone the "Great Leap Forward," the readjustment, the 10 years of turmoil and several reforms and changes, the centralized and unified economic system, which was formulated and established during the First 5-Year Plan period, paid its high prices and accumulated profound experiences and lessons.

During the period of the "Great Leap Forward," our country attempted its first reform of the economic system. The focus of this reform was to expand the authority of the localities. We transferred the authority of 88 percent of the enterprises directly under the central authorities, including many heavy industrial large-scale core enterprises, to the localities, and inappropriately expanded the power of management of the localities in such aspects as planning, capital construction, financial and material resources and labor forces. In the countryside, within a relatively short period of time, we turned over 99 percent of the peasant households throughout the country to the people's communes and transferred the leadership and business management over all the state commercial, grain, financial and banking organizations in the rural areas to the communes. In the cities, we merged the collective commercial stores and groups with the state-run commerce and changed the handicraft cooperatives into local state-run factories and cooperative factories. At the same time, we reduced tax types, transferred the power of taxation to the lower levels and transferred the banking organizations to the lower levels. Under the guidance of the "leftist" thinking, this reform departed from the correct principle stipulated by the program for reform of 1957. Its point of departure was to allow the localities to set up their own systems and realize the so-called "Great Leap Forward." We failed to take appropriateness into consideration in the transfer of power to the lower levels. After the transfer to the lower levels, the cooperative relationship between the former provinces and municipalities was undermined. We adopted the rush method of transfer to the lower levels and our demands were too fast and too abrupt. While expanding the authority of the localities and enterprises, we failed to strengthen macroeconomic control correspondingly. Thus, although this reform played a definitely positive role in mobilizing the enthusiasm of the localities and in developing local industries, yet, due to the mistake in our guiding thinking, by and large, it was unsuccessful, and brought about serious losses to the national economy.

The reform of the economic system during the period of readjustment in the sixties revolved around correcting the "leftist" mistakes during the period of the "Great Leap Forward," implementing the principle of "readjustment, consolidation, strengthening and improvement" and restoring and developing the goals of the national economy. The major contents of the reform were: Retrieving the excessive power which was transferred to the enterprises during the period of the "Great Leap Forward"; strengthening the management over the national economy, controlling the investment in fixed assets in the localities and strengthening the centralized and unified management over materials; under the prerequisite of letting the system of ownership by all people occupy the leading position, appropriately restoring and developing the collective economy and permitting the existence of urban and rural individual economies; opening up fair trade and letting the economic levers play regulatory roles; gradually expanding the limits of authority in management by localities; trial-implementing trusts and reforming the enterprise system of management; and

strengthening economic legislation and economic supervision, and so on. This reform was basically in accord with the demand to restore and develop the productive forces. It played an important role in strengthening macroeconomic control, fulfilling the tasks of readjustment, and swiftly restoring and developing the national economy. However, shortcomings also existed, such as excessive retrieval of power of the enterprises by some departments, overcentralization of materials distribution and too little decision-making power of the enterprises.

During the 10 years of turmoil, our country's economic system once again underwent a change of a considerably broad scope. This change in the economic system took place under the guidance of the unrealistic "leftist" thinking of pursuing formation of one's own system and self-sufficiency of the localities, and in the midst of the background of "toppling vertical dictatorship" and criticizing the so-called capitalist restoration. The key to this change in the economic system was to transfer power to the lower levels and expand all kinds of authority over management of the localities. Within a very short period of time around 1970, over 2,600 enterprise and professional units directly under the central authorities, including the Anshan Iron and Steel Company, the Daqing Oilfield, the Kailuan Coal Mine, the No 1 Automobile Manufacturing Plant and other large-scale core enterprises, were all managed by the localities. In some cases, the power of management was transferred from the provinces to the cities and counties. In addition, we implemented contracting of materials, finances and capital construction in order to expand the limits of authority of the localities in planning, materials and financial management. In regard to the system of ownership of the means of production, we intensified the structure of the system of ownership by all people. In distribution, we popularized eating out of the "same big pot" and indulged in the thinking of the supply system. The changes in the economic system during this period were affected by the political turmoil and disturbance at the time. Also, in many respects, they were repetitions of the reform during the period of the "Great Leap Forward," some of which went too far, bringing about even more serious consequences.

Our country's socialist economic system, which was formulated and established during the First 5-Year Plan period, underwent definite changes through the reforms of the "Great Leap Forward," the period of readjustment and the 10 years of turmoil. Prior to the 3d Plenary Session of the 11th CPC Central Committee, in terms of the relationship between the central and local authorities, there were the shortcomings of overcentralization as well as problems of excessive decentralization. In terms of the relationship between the state and the enterprise, the state had too much control and the enterprise had too little decision-making power. In terms of the distribution within the enterprise and rural collective economy, such aspects as egalitarianism and eating out of the "same big pot" seriously inhibited the enthusiasm of the enterprises and the laboring people. Other extremely prominent drawbacks included the unitary nature of the system of ownership as well as the boycott of market regulation and the negation of the law of value and the economic levers by the planned system.

Since the 3d Plenary Session of the 11th CPC Central Committee, the reform of our country's economic system has entered a new stage.

At the end of 1978, we convened the 3d Plenary Session of the 11th CPC Central Committee, began to correct the "leftist" mistakes which existed for a long time in economic work, and shifted the focus of work onto economic construction. In April 1979, the party Central Committee proposed the implementation of the principle of "readjusting, restructuring, consolidating and improving" the national economy, and step by step unfolded reform of the economic system. In September 1982, at the 12th CPC Congress, it was further pointed out that the reform of the economic system was an important guarantee to launching modernization.

For 4 years, on the basis of bringing order out of chaos in our political thinking, the various localities and various departments in our country carried out reform of the economic system. This reform was markedly different from that of several previous occasions:

1. It embraced a higher sense of awareness. The reform was carried out under the guidance of the principle of emancipating thinking and seeking truth from facts, through purging the "leftist" erroneous thinking and in light of the demands of the development of our country's productive forces. There was a major breakthrough theoretically. Since the 3d Plenary Session of the 11th CPC Central Committee, we have conducted discussions on social commodity production and the law of value, and corrected our former onesided viewpoint that the means of production were not commodities and the law of value did not play an important regulatory role. We conducted discussions on the socialist distribution according to labor and realized that we must shatter the system of eating out of the "same big pot" and holding onto the "iron bowl" before we can bring the enthusiasm of the broad masses of staff members and workers into play and raise the economic results. We conducted discussions revolving around such problems as the relationship between the planned economy and market regulation, and further understood the socialist character of our country at the present stage as well as toward the concept, content and boundaries of the planned economy and market regulation. We must correctly implement the principle of the leading role of the planned economy and the supplementary role of market regulation. The socialist economy must implement the planned economy on the basis of the system of public ownership. While persevering in its planned and unified character, we also must allow the localities and enterprises to have a definite degree of initiative and flexibility. Our experience proves that the important prerequisites to the smooth launching of the reform are to do a good job of the theoretical exposition of the reform of the economic system and to clarify the theoretical basis for the reform.

2. There was a definite degree of extensiveness. The reforms on the previous several occasions primarily centered on the division of rights between central and local authorities, which often resulted in inflexibility when there was unity, complaint when there was inflexibility, letting go when there was complaint and confusion when letting go took place. Thus, mistakes were made continuously and repeatedly. The reform on this occasion went beyond the confines, and the reform was carried out from the rural areas to the cities,

from expanding the decision-making power of the enterprises to readjusting the higher level management organizations, and from the realm of production to the realm of circulation and distribution.

3. There was a definite character of planning. Some reforms in the past had inappropriately adopted the method of mass movement, rushed headlong into mass action and made demands too anxiously and too rapidly. In the reform on this occasion, from the rural areas to the cities, we adopted a positive attitude and carried out the reform in a planned manner step by step. Generally, we first conducted pilot projects before we popularized the experiences step by step. The system of contracting responsibility in joint production in the rural areas took 5 years. The economic system of responsibility implemented in the cities started with pilot projects in the industrial enterprises. Then, the experience was gradually popularized in the large number of industrial enterprises as well as communications and transportation, construction, commerce and service trades. In order to provide the experience for stipulating the general program for the reform of the economic system throughout the country, with the approval by the State Council, Shashi and Changzhou began in 1981 and March 1982 separately the pilot project for a comprehensive reform of the economic system. They aimed at such shortcomings as eating out of the "same big pot" in the existing system and the failure of the enterprise to be concerned with the market and with technological progress, and trial-implemented reform to varying degrees in such aspects as production, circulation, distribution, banking, science and technology, planning, prices and labor wages. They made new progress and provided beneficial experiences for the reform in the various localities throughout the country.

Practice has proved that, in the reform of the economic system over the last 4 years, we have embraced a correct direction and scored marked results.

1. Under the Prerequisite of Letting the State-run Economy Occupy the Leading Position, We Developed Diverse Economic Forms. Since the 3d Plenary Session of the 11th CPC Central Committee, the urban and rural collective economy and individual economy have developed extensively. In the cities and towns, we restored and developed a group of industries, transportation industry, retail commerce, catering trade and repairs trade under the system of collective ownership. From 1979 to 1982, the number of staff members and workers employed by the urban collective enterprises increased by 9.4 million people. The output value of the collective industrial enterprises increased 50 percent in 4 years. The number of individual laborers in the cities and towns went from 150,000 people in 1978 to 1.33 million people in 1982. In the rural areas, we expanded private plots and developed family sideline production. In order to implement the policy of vitalizing the economy internally and opening up to the outside world, we permitted joint operation among different systems of ownership internally, and actively and cautiously brought in foreign investment and set up China-foreign country joint enterprises externally. Practice has proved that the structure of the system of ownership in which the state-run economy is the leading body and diverse economic forms are rational complements is in accord with China's condition and played a very fine role in enabling the economy to prosper, vitalizing the market, expanding employment opportunities and making things convenient for the livelihood of the broad masses.

2. We Popularly Promoted the Economic System of Responsibility, Which Preliminarily Changed the Situation of Excessively Inflexible Control by the State Over the Enterprises and Collectives. By the end of 1982, 92 percent of the production teams in the rural areas throughout the country implemented the system of contracting responsibility in joint production in diverse forms. Taking the peasant household or group as the contracting unit, this system expanded the decision-making power of the peasants and overcame such malpractices as overcentralization in management, a "big hole" in labor, and egalitarianism. Division of labor according to specializations and social alliance emerged on the basis of developing commodity production, and the rural economy developed in the direction of specialization, commodity production and socialization, thereby liberating the productive forces on a large scale. In the cities, in 1980, 16 percent of the industrial enterprises within the budget throughout the country launched pilot projects in expanding their decision-making power. By 1982, 80 percent of the state-run industrial enterprises within the budget implemented the economic system of responsibility. A number of small-scale state-run and collective commercial units, catering and service trades and small-scale industrial enterprises began to implement state-run or collective operation or operation through collective and individual contracting by staff members and workers. The implementation of the economic system of responsibility and the change in the form of operation enabled the enterprises to have some decision-making power in such aspects as production planning, sales of production, use of funds and assignment and dismissal of intermediate-level cadres. This mobilized the enthusiasm of the enterprise and the staff members and workers and increased the enterprise's vitality in operation.

3. We Improved the System of Circulation and Expanded Urban, Rural and Foreign Economic Exchange. Since the beginning of 1980, we changed the form of procurement and sales of industrial products from one primarily of state monopoly for procurement and sole agent for sales to such diverse forms as state monopoly for procurement and sales, planned procurement, procurement by order, procurement by choice, and sales by the enterprises themselves. We also further relaxed the procurement and sales policy of agricultural products. One has the freedom to transport for sale the third-category agricultural and sideline products as well as the first-category agricultural sideline products after the state procurement, assigned procurement and planned procurement tasks have been fulfilled. This provided favorable conditions for a multichannel circulation. We readjusted the commercial structure in society and increased a large number of commercial network outlets. Diverse economic forms emerged one after another. They include sales by the production units themselves, trading warehouses, all kinds of jointly-operated shops, markets for exchanging the means of production, wholesale markets for small commodities, and joint agricultural-industrial-commercial enterprises. In June 1982, the State Council issued the "Decision on Opening Up Urban and Rural Channels of Commodity Circulation and Sending More Industrial Products to the Rural Areas." This changed the long-standing system of division of labor according to urban and rural areas involving industrial products and implemented the division of labor according to commodities. This opened up the circulation between urban and rural areas. The state-run commerce can go to the rural areas and the supply and marketing cooperatives can go to the cities. Many channels of circulation emerged in both the cities and rural areas and the situation of the separation of

cities from rural areas improved slightly. Urban and rural fair trades developed on a large scale. In 1982, the gross amount of urban and rural fair trade throughout the country was 32.8 billion yuan, 28.7 billion yuan of which came from the rural areas and 4.1 billion yuan from the cities, showing a respective increase of 13.4 percent and 20.6 percent over 1981. Taking the exchange of agricultural and sideline products as the key, the rural fairs are developing into comprehensive markets for the exchange of agricultural and sideline products as well as industrial products and handicraft industrial products. Many rural fairs gradually developed into local rural centers for economic activities, while some became new small towns in an embryonic form. The situation of overcentralization in foreign trade also changed slightly. The preliminary reform of the system of circulation expanded urban and rural economic exchange and external economic exchange, established closer ties between production and needs and enhanced production development.

4. We Began To Pay Attention to the Regulatory Roles of Such Economic Levers as Prices, Taxation and Credit and Loans. In respect to prices, we raised the procurement prices for the major agricultural and sideline products and readjusted the prices of tobacco, wine, synthetic fiber products as well as some durable consumer products. In some trades, we implemented internal cooperative prices and prices from accounts settled internally. As regards a number of third-category small commodities, we implemented the fixing of prices through consultation between the buyer and seller or the fixing of prices by the enterprises themselves. In respect to taxation, we launched pilot projects in the substitution of tax payment for profit delivery. The statistics of 456 pilot enterprises of 18 provinces, municipalities and autonomous regions indicate good results in the substitution of tax payment for profit delivery. Compared to 1980, in 1981, output increased by 2.5 percent, the realized profit increased by 18 percent and the taxes delivered to the state increased by 13.6 percent. In the proportion of distribution of the increased profit, state revenue constituted 60.13 percent and profit retention by the enterprise constituted 39.87 percent, thereby guaranteeing greater gains for the state. We trial-implemented increment taxes on some 900 enterprises. This enhanced the cooperative production among specializations. In respect to credit and loans, we changed from financial appropriations to bank loans with regard to a portion of the capital construction investment and investment in tapping potentials and in renewal and transformation, and implemented the use of funds with repayment. Toward some industrial and communications enterprises, we trial-implemented a floating rate for circulating funds. In light of the speed, fast or slow, of turnover of funds of the loan enterprises, the Sichuan Provincial People's Bank and the Chongqing Municipal People's Bank implemented favorable interests or added interests, with interest rates fluctuating around 20 percent of the standard interest rate.

The statistics of 103 pilot enterprises in Chongqing City show that there was a reduction of 26.43 million yuan of circulating funds in 1982. The banks offered favorable treatment to 67 enterprises by reducing interests by 260,000 yuan and raised the interests according to regulation of 36 enterprises which were slow in the turnover of funds. In this way, the economic results of the use of circulating funds by the enterprise were directly linked to the interests of the enterprise, thus raising economic results and economizing on funds.

5. We Implemented Enterprise Reshuffling and Economic Alliance, and Enabled the Structure of Economic Organizations To Begin To Move in a Rational Direction. In light of the principles of cooperation among specializations and a rational economy, we organized and built a number of specialized companies and technological centers in integration with economic readjustment. In 1981 and 1982, 41 industrial cities throughout the country undertook the work of readjusting technological specializations in casting, forging, electroplating and thermal treatment and dismissed 2,836 factory outlets. Through readjusting and reshuffling, they saved energy, reduced pollution and raised the level of cooperation among specializations. In 1981 and 1982, Beijing Municipality dismissed 351 factory outlets, saving 13.51 million kWh of electricity and 36,000 tons of coal every year. Among the production, scientific research and sales units, among regions and among departments, as well as between regions and departments, many forms of economic alliance were set up. Shanghai's Gaoqiao Petrochemical General Company implemented alliance across trades. A little over a year after its founding, it basically overcame the problem of disputes among the major factories participating in the alliance, a problem which had failed to be solved for as long as 20 years. In 1982, under the situation when the various factories did not increase facilities and personnel, the general company increased its gross output value by 2.75 percent and its profits by 4.37 percent over 1981. The implementation of enterprise reshuffling and alliance with the industrial cities as the centers is a major reform of the industrial system of management, and is also an important link in enhancing technological progress.

The reform in the last 4 years has in many respects broken through the irrational economic system and the old traditional ideas which kept us in shackles for a long period of time, effectively mobilized the enthusiasm of the departments under the central authorities, the localities, the collectives and the laborers, vitalized the urban and rural economic lives and played a very fine role in promoting the development of our country's national economy and improving the people's livelihood. However, we should also be able to see that the reform in recent years was conducted in the midst of readjustment, and is partial and exploratory in nature. We still need to fundamentally overcome the malpractices in our original economic system. We still lack experience and must continue to explore and advance in the reform in the future in such aspects as how to handle the relationship between the central and local authorities and between the vertical and horizontal, bring the role of the key cities into play, organize all kinds of activities in light of the demand of socialized mass production and the intrinsic economic alliance, shatter vertical and horizontal separation and urban and rural separation, and form and develop a unified socialist market; how to concretely implement the principle of the leading role of the planned economy and the supplementary role of market regulation, give play to the economic levers as regulatory roles, attain the goal of controlling the large-scale projects and giving freedom to the small-scale projects, and enable the national economy to develop in a centralized and unified manner as well as in a flexible and diverse manner; and how to truly solve the problems of "the iron bowl" and "the same big pot," guarantee that the laborers can obtain material interests that truly correspond to the quantity and quality of their labor, and give full play to the wisdom and intelligence of various types of personnel.

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ESTABLISHMENT AND DEVELOPMENT OF AGRICULTURAL PRODUCTION RESPONSIBILITY SYSTEMS

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[Article by Bai Hewen [4101 7729 2429]]

[Text] The building of agricultural production responsibility systems has been a magnificent creation of China's widespread peasant masses. It reflects the desires of the peasant masses for a change in the longstanding situation of "eating out of a large common pot" that has existed in the collective economy, and a powerful desire to seek rapid development of new avenues in socialist agriculture. In compliance with mass desires, the CPC Central Committee warmly encouraged and supported the creation of the masses, and actively summarized and promoted fine experiences from everywhere. As a result, agricultural production responsibility systems developed very rapidly throughout the country and gave rather healthy and powerful impetus to development and change of the agricultural economy as well as of the whole rural situation.

Agricultural production responsibility systems have been promoted throughout the whole country for more than 4 years. During these 4 years, development of agricultural production responsibility systems has proceeded from single points to wide areas, from single to multiple applications, from no linkage to output to linkage to output, from indirect linkage to output to direct linkage to output, and from imperfection to increasing perfection. Specifically, they have gone through three main stages as follows: 1) The period following the 3d Plenary Session of the 11th Party Central Committee in December 1978 to September 1980 may be termed the stage of experimentation and preliminary promotion of agricultural production responsibility systems. The main form of responsibility systems during this stage was contracting for assigned quotas (not linked to output), and contracting of production to teams, with the calculation of remuneration being linked to output. More than 50 percent of all production teams practiced the form of responsibility system contracting for assigned quotas, while only about 30 percent practiced various kinds of contract responsibility systems linked to output in which the contracting of production to teams was the paramount form. 2) Between October 1980 and the end of 1981, great changes occurred in agricultural production responsibility systems, namely, the rise of contracting for assigned quotas, linking output to teams, linking output to individual laborers, contracting output to individual households, contracting of sole responsibility for work completion to individual households, and specialized contracting.

Looked at in terms of the kinds of contracting done, these forms may be divided into contracting work, contracting output, and contracting responsibility for task completion. In terms of scale of contracting, they may be divided into contracting to teams, to households, and to individual workers (which was, in fact, the same thing as contracting to households). In terms of operations, they may be divided into two kinds of all-round operations characterized by specialized contracting and contracting of land. In terms of remuneration and distributions, they may be divided into those in which remuneration and distribution was linked to output and those in which it was not. Those in which remuneration and distributions were linked to output may be divided, in turn, into direct linkage to output (large-scale contracting of sole responsibility) and indirect linkage to output (retention of the workpoint system). Following this stage of change and development, more than 80 percent of all production teams have one form or another of a contract responsibility system linked to output, more than 50 percent either contracting production to individual households or contracting sole responsibility for task completion to individual households. Only about 15 percent practiced contracting for assigned quotas. 3). The 1st of January marked the beginning of the stage of summarization, perfection and consolidation of agricultural production responsibility systems. Following the changes and great development of the previous stage, a period of conscientious summarization was required, the summarization providing a relative consolidation, with consolidation leading to gradual improvement and development.

A look at actual events during 1982 shows that as a result of a large amount of summarization and improvement work done everywhere, agricultural production responsibility systems saw new development and upgrading. Several features are capsulized below:

I. Of all the Various Forms of Agricultural Production Responsibility Systems, an Extremely Large Proportion Are Contract Systems Linked to Output. As a result of the frequent need to make plans for the employment of work forces, to set quotas for farm work to be done, and to inspect and accept quality of farm work, which was both complex and tedious and not easy to do in an equitable manner, some brigades that instituted contracting for assigned quotas were usually unable to keep them up for a long period of time. Though some brigades nominally instituted responsibility systems, they actually continued the same old method of "eating out of a large common pot," without any fundamental change. The masses in these brigades urgently demanded institution of contract responsibility systems linked to output. Development from no linkage to output to linkage to output became an inevitable trend in the process of perfecting agricultural production responsibility systems. In 1982, production teams practicing contract responsibility systems linked to output accounted for 92 percent of the total number of production teams.

II. Among the Multiple Forms of Contract Responsibility Systems Linked to Output, Family Contract Systems Linked to Output Have Become the Predominant Form. A look at contract systems linked to output everywhere shows a gradual transformation from time and individual laborer contracting to household contracting, and a transformation from contracting output to households to contracting sole responsibility for task completion to individual households.

In 1982, 78.7 percent of all production teams practiced a family style contracting system linked to output, with contracting of sole responsibility to individual households being the predominant form. This fact demonstrates that family style contract farming is suited to the level of agricultural production and the level of peasant cultural, technical and management skills in most parts of China at the present stage. The contracting of sole responsibility form is simple and workable; it is "direct rather than tortuous," and has been welcomed greatly by the peasants.

It is noteworthy that the form of linking production to the calculation of remuneration through contracted work distributions not only suits poverty-stricken areas with backward production and an undiversified economy, but also suits economically developed and wealthy areas with a fairly high degree of specialization. Take Yixing County in Jiangsu Province where the level of economic development is fairly high, for example. In 1981, the principal form of production responsibility system in this county was centralized farming with outputs linked to individual workers. By 1982, however, more than 70 percent of production brigades and production teams had instituted centralized farming, specialized contracting and distributions from contacting sole responsibility for work completion. That is to say that not only industrial sideline occupations but agriculture as a whole had changed to the contracting of sole responsibility for task completion to households. This form incorporated the advantages of both specialized contract responsibility systems and responsibilities that contracted sole responsibility for task completion to individual households for a full embodiment of the principle of centralizing whatever lent itself to decentralization. It both made the most of the superiority of the collective economy and stirred the enthusiasm of individual commune members, thereby greatly increasing economic effectiveness. Throughout Yixing County, in 1982 both gross grain output and yields per unit of area created all-time records including 74.7 percent increase over 1981 in the summer grain harvest, a more than doubling of rapeseed output, and substantial growth over 1981 in the output value of sideline occupations.

III. Simultaneous With Constant Improvement in Contract Systems Linked to Output, Responsibility Systems Rapidly Spread From Farming and Breeding Industries to All Rural Trades and Industries. Practice during the past several years has shown contract systems linked to output to have blazed new trails in the building of Chinese style socialism in rural villages. These systems are an exceptionally effective form for making the most of the superiority of China's socialist economic system. They began in the farming and breeding industries and spread to forestry, animal husbandry, sideline occupations and the fishing industry. A look at the practice of responsibility systems in all industries shows remarkable results. For example, Juyangtuo Production Brigade in Luoshuihe Commune, Lingqiu County, Shanxi Province had a 1,500 mu area suitable for forests (only 300 mu of which had forests) where barren mountains and bald ranges remained without change for a long period of time. Beginning in 1981, the task of afforesting these mountains was contracted to individual households on the basis of the size of the labor force in each household. Households were responsible for doing the afforestation and for looking after the trees planted, ownership going to those who planted the trees with accumulations being turned over to higher authority in a system of

complete and total contracting. Original plans called for the afforestation over a 3-year period of 1,000 mu of bald mountains suitable for the growing of forests, but the entire task was completed within a single year, and the survival rate averaged 75 percent. After Balin Left Banner in Nei Monggol instituted the contracting of livestock to individual households, the animal husbandry industry developed very rapidly, achieving "three highs and one low" during 1981 (i.e., high rate of increase, high survival rate for newly born livestock, a high rate of removal from inventory, and a low death rate for young livestock). In 1982, total numbers of livestock reached an all-time high. In Tangshan Prefecture in Hebei Province, after 527 fishing brigades in 5 fishing communes promoted responsibility systems linking calculation of compensation to output, production efficiency rose markedly. During the first half of 1982, an accumulated 18,474 tons of fish with an output value of 11.09 million yuan had been produced. This was 61.6 and 93.9 percent more, respectively, than during 1981. In Jianou County, Fujian Province, 96.5 percent of 971 commune-run enterprises have established various forms of economic responsibility systems. In that county, Nanya Commune instituted an administration and management responsibility system featuring "division of profits" among it's 12 constituent commune- and brigade-run industrial and transportation enterprises. Each enterprise established, in turn, various forms of production responsibility systems. As a result, except for a single plant that did not fulfill profit plans as a result of readjustment of the orientation of its production, the 11 others all overfulfilled profit plans. Since 1982, commune- and brigade-run enterprises in some places have also begun trial use of plant manager contract responsibility systems. Within a year losses have turned into profits, and great changes have taken place. This shows that despite specific differences between one industry and another and dissimilarities in forms of responsibility systems, their common feature is a need to establish and steadily perfect contract responsibility systems linked to output if they want to develop. "Eating out of a large common pot" is not tenable anywhere.

IV. Multiple Forms of Economic Partnerships Have Come Into Being With Development of Contract Responsibility Systems Linked to Output. In addition to further improvement and strengthening of centralization of certain aspects of operations by production teams as development of production requires, increasingly large numbers of commune members in places that have instituted the assignment of sole responsibility for task completion to individual households have voluntarily entered into various forms of cooperation and partnership. They work together, for example, in sinking wells, in buying farm machines, in the prevention and control of diseases and insect pests, and in growing seedlings and seed production. During the past year or 2, various forms of specialized households and key households have developed rapidly. In Heilongjiang, Liaoning, Shandong and Shanxi Provinces, they already number about 10 percent of all peasant households. In Zhucheng County, Shandong Province, 62,000 or 31.1 percent of all peasant households are "two households." In addition, to meet "two households" needs in development, various forms of partnerships have sprung up. In some places, a complete pre- and post-production service system has come into being. In order to meet the needs of households specializing in raising livestock, numerous communes and brigades in suburban Shenyang and Harbin formed partnerships to operate chicken- or hog-breeding farms, livestock fodder processing plants, quarantine stations,

and supply and marketing services, providing favorable conditions for development of the family livestock raising industry. Furthermore, to meet the needs of the new situation that followed establishment of production responsibility systems, organizations such as supply and marketing cooperatives and farm technique departments as well as all kinds of partnerships to provide services to peasants sprang up at all levels everywhere. These included various kinds of specialized companies, technical service stations, and agricultural, industrial and business partnerships. Kaifeng Prefecture in Henan Province has established 469 service companies of various kinds at the commune level and above, which have been very well received by the peasants.

The foregoing multilevel, multiform partnerships are both an inevitable trend in the development of contract responsibility systems linked to output, and particularly in development of family contract systems linked to output, and they also impel contract responsibility systems linked to output toward further perfection and improvement. Gradual restructuring of existing forms of administration and management of the collective economy and gradual perfection and development of new forms of economic partnership will give the country's rural cooperative economy new meaning and experience, with the result that the road to socialist cooperativization of agriculture will better suit realities in China.

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THE WORK OF ALL-ROUND RECTIFICATION OF INDUSTRIAL ENTERPRISES IN CHINA IN 1982

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[Article by Wang Jibo [3769 4949 0514]]

[Text] In early 1982, the CPC Central Committee and the State Council issued a "Decision on Launching All-round Rectification of the State-run Industrial Enterprises." The work of rectification of the industrial enterprises in our country entered a new stage of constructive rectification.

The constructive rectification of industrial enterprises is essentially a profound transformation of various aspects such as the system of leadership, the system of management and the method of management that is launched inside the enterprises. It is vastly different from the restorative rectification which was launched in previous years. Restorative rectification aimed at bringing order out of chaos ideologically, organizationally and institutionally, at eradicating the serious consequences that were brought about by the sabotage of the two counterrevolutionary cliques of Lin Biao and Jiang Qing, and at restoring normal order to production and work in the enterprises. Of course, in the course of launching restorative rectification, a few advanced enterprises also carried out some work in the direction of constructive rectification. After fulfilling their tasks of restorative rectification and entering the new stage of all-round rectification and comprehensive management, the industrial enterprise must solve the following major problem: The failure of the structure of leadership, the system of leadership and the level of leadership, as well as the quality of the workers' rank and the enterprise system of business management of the existing enterprises to meet the demands of socialist modernization. The focal point is to solve the problem of low economic results. Thus, the "Decision" of the CPC Central Committee and the State Council clearly proposed that the all-round rectification of an enterprise must take the "three construction projects" as the basic contents in integration with the technological transformation of the enterprise, and launch comprehensive management over the enterprise, thereby shifting all the work of the enterprise onto the path of taking raising economic results as the key. In the enterprise, we must gradually set up a leadership structure that is both democratic and centralized, gradually set up a workers' rank that is both socialist-minded and vocationally proficient, and gradually set up a scientifically advanced system of management.

In 1982, the various localities and various departments conscientiously implemented the spirit of the "Decision" and, in light of their own reality, formulated a program for launching an all-round rectification of the enterprises under their jurisdiction. Toward the large-scale and medium-sized core enterprises, we adopted a program for work in launching rectification by stages and in groups, step by step and with emphasis. The higher-level government organs dispatched with emphasis investigation groups to stay at selected units to assist the enterprises in launching rectification. The numerous enterprises in all areas, on the other hand, launched rectification on their own in accordance with the spirit of the "Decision" or made preparations for launching an all-round rectification. In 1982, the first group of large-scale and medium-sized core enterprises to undergo all-round rectification launched work in primarily the following five aspects: Rectifying and perfecting the economic system of responsibility and launching all-round planned management, all-round quality control and all-round economic accounting; rectifying and strengthening labor discipline by strictly implementing the system of rewards and penalties; rectifying financial and economic discipline and perfecting the financial and accounting system; rectifying labor organizations and organizing production according to fixed personnel and fixed quota; and rectifying and building the leading groups and strengthening the ideological and political education of the staff members and workers. The course of all-round rectification in the enterprises was filled with a marked color of reform. Because the CPC Central Committee and the State Council adopted the correct principles and policies, and because the party and government leadership at various levels attached importance to the matter and because the broad masses of staff members and workers of the enterprises actively participated in the work, generally speaking, healthy progress was made in the work of rectification. In view of those enterprises which launched the work of rectification in a relatively proper manner, a new scene of vitality appeared.

First, the Enterprise Leading Group Made a Big Stride in the Direction of the Demands of the "Four Modernizations."

The key to doing a good job of the all-round rectification of the enterprises is to do a good job of rectifying the leading group, and is the first problem which we must "crack" in the work in five aspects. Because of historical reasons, the leading groups of the industrial enterprises in our country embrace generally the following situation: older age group, numerous personnel, low cultural level, and few vocational and technical cadres. In the all-round rectification on this occasion, most of the enterprises resolutely carried out readjustment and rectification in light of the above-described situation. They vigorously selected a group of middle-aged and young cadres who had both ability and political integrity to the leading positions and appropriately arranged for a group of veteran cadres to retreat to the second and third lines, thereby bringing about a very big change in the quality and structure of the enterprise leading group. The statistics of 804 large-scale and medium-sized core enterprises show that the average number of people in the leading group went from 8.7 before the rectification to 6.5, a reduction by 25.3 percent. Of this, the average number of new people joining the leading group was 1.6, constituting 24.6 percent of the number of people in the new leading group. The average age went from 51.2 years before the

rectification to 47.9, lowering the age by 3.3 years. Those who had a college and high-school education went from 36.9 percent before the rectification to 55 percent, while those who were proficient in their technical profession went from 24.6 percent to 41.1 percent. With regard to the specific methods of selecting and assigning enterprise leading persons, most localities carried out reform and implemented the method of integrating assessment and selection by the higher level with public opinion polls and mass election by the staff members and workers. Thus, most of the enterprises made relatively smooth progress in the work of rectifying the leading group, and the leading group after the readjustment was more in accord with the wishes of the masses of staff members and workers and was also more to the satisfaction of the higher level.

Second, We Implemented a New Enterprise System of Leadership.

Through summing up and studying the historical experience of our country's enterprise system of leadership, the party Central Committee and the State Council clearly put forth the following basic principle of enterprise management: "Collective leadership by the party committee, democratic management by the staff members and workers and administrative command by the head of the factory." The "Provisional Regulations for the work of the Congress for Staff Members and Workers of State-run Industrial Enterprises," "Provisional Regulations for the Work of Heads of State-run Factories," and "Provisional Regulations for the Work of Basic-level Party Organizations of Industrial Enterprises" were successively issued. The implementation of the abovementioned three sets of regulations by the first group of enterprises to undergo rectification produced extremely marked results. The rights of the staff members and workers in democratic management were expanded. Having clear duties and rights, the congress of staff members and workers was able to play a better role as a power organ in which the staff members and workers could participate in management, decision making and supervision over cadres. The party committee shifted its major energy onto the implementation of the party's principles and policies, the strengthening of party building and ideological and political work, and overcame the longstanding phenomenon of the failure of the party to control the party and of the replacement of the government by the party. The responsibility and power of the head of the factory (manager) were strengthened. In a corresponding manner, the system of administrative command in enterprise production was perfected, thereby raising efficiency in work and enabling the enterprise to gradually move toward scientific and highly-efficient business management.

Third, We Further Perfected the Economic System of Responsibility Inside the Enterprise.

The focus of the all-round rectification of the enterprise in five aspects lies in perfecting the economic system of responsibility inside the enterprise. The Capital Iron and Steel Company is an advanced model with more remarkable performance in the work in this respect, and its experience is popularized in various localities throughout the country. In many enterprises, from the head of the factory to the workers, the economic system of responsibility was generally established level by level in accordance with the principle of the integration

of responsibility, rights and interest. In order to guarantee the all-round fulfillment of the state plans, we adopted such methods as quota analysis, implementation level by level, contracting level by level, guarantee level by level, strict assessment and distinction between rewards and penalties. In this way, we preliminarily set up a vertically and horizontally interlocking economic system of responsibility inside an enterprise that enables the various systems and various links inside the enterprise to revolve around realizing a unified business goal, to carry out mutual coordination and promotion, and to gradually rationalize the enterprise's production and business.

Fourth, We Brought About a Fine Beginning in the Work of Rectifying the Enterprise Labor Organization.

A prominent problem in enterprise labor management over the years was excessive personnel in an enterprise, with an irrational structure of personnel at the first and second lines, overstaffing and low labor productivity. In enterprise rectification, several units, such as the Harbin Ball Bearing Plant in Heilongjiang Province and the No 1 Building Construction Company were the first ones to make breakthrough progress in this respect. By the end of 1982, in some 10,000 industrial enterprises which belonged to the first group to undergo rectification throughout the country, roughly half fulfilled or were launching rectificiation in labor organization. Among them, roughly one-third did a good job or relatively good job. Through rectification, the level of fixed quota for labor was generally raised by 10 percent. Roughly 15 to 20 percent was surplus personnel. The strength of the first line of production was consolidated and strengthened. We adopted many methods to place the surplus personnel. Some were sent to consolidate the newly-built workshops, and, through regularization within a trade, others were transferred to work in enterprises that needed more personnel. In addition, appropriate arrangements were made for the old, feeble and sickly according to concerned policies and stipulations. The majority of surplus personnel were transferred to other appropriate work by those enterprises or units in charge of the enterprise which had set up labor service companies and livelihood service companies.

Fifth, We Began To Put the Education of Staff Members and Workers on the Enterprise's Important Agenda.

Over the years, great changes have taken place in the ranks of staff members and workers of industrial enterprises in our country. The proportion of new workers increased. In some enterprises, it reached 50 percent and even 70-80 percent. Most of the new workers not only have a poor technological level, but also a very low cultural level. In 1982, many enterprises seized upon the excellent opportunity of rectification and, on the basis of rectifying the labor organization and organizing production according to fixed personnel and fixed quota, made priority arrangements to organize training for the staff members and workers who were young or who were in their prime of life and who met the requirements. Many enterprises ran their own training centers, which included all kinds of schools and training classes for learning culture, learning technology and learning a vocation. In integration with the regular training work, they greatly accelerated the development of the cause of educating staff members and workers. For instance, of the 91 large-scale and

medium-sized enterprises in Liaoning Province, which belonged to the first group of key enterprises to undergo rectification, 52 set up training centers for staff members and workers. The rate of enrollment of staff members and workers reached 53.8 percent, and the rate of study that was divorced from production reached 16 percent. One-third of the staff members and workers who were young and in their prime of life passed the cultural make-up lessons and one-fifth of them passed the technological make-up lessons. The scope of training of cadres at factory level also reached 80 percent and above. Under the guidance and planning of the department at various levels in charge of education for staff members and workers, this work is moving in the direction of regularization. This is a new development in the cause of educating staff members and workers in our country, and will inevitably lay a fine foundation for building a production army that is both socialist-minded and vocationally proficient.

Sixth, We Rectified Financial and Economic Discipline as Well as Labor Discipline.

In 1982, the various localities throughout the country generally launched in a penetrating manner a mass inspection of financial and economic discipline and effectively dealt blows to economic criminal activities, exposed and handled some serious economic criminal cases, and stopped up and eliminated some loopholes and hidden troubles in the enterprise financial system of management. On this basis, some enterprises rectified and perfected the financial and accounting system, set up strict financial and economic discipline and prepared the conditions for an all-round economic accounting.

In 1982, the activity of "five stresses and four beauties" was popularly launched throughout the country. At the same time, the State Council also issued the "Regulations on Rewarding and Penalizing Enterprise Staff Members and Workers." Concerned departments formulated a "Handbook for Staff Members and Workers." In the implementation, many enterprises also formulated concerned detailed rules and regulations. All these greatly promoted the rigorous enforcement of strict labor discipline and the establishment of a new style of work in the factory. Through rectification, great changes took place in the spiritual outlook of the staff members and workers of the enterprises, a marked turn for the better was seen in the style of work and discipline of a factory, and new progress was made in morality and habit.

Seventh, We Strengthened the Fundamental Work in Enterprise Management.

In the course of launching the rectification in five respects, the enterprise launched rectification in a down-to-earth manner on the various fundamental tasks in enterprise management, such as the work of standardization, the work of fixed quota, original records, the work of measurement, the work of news and basic education. At the same time, it consolidated such measures involving professional personnel as well as measurement and testing, and raised the degree of perfection in these fundamental tasks. For instance, the statistics of 29 factories in Qingdao City show that, after the rectification, the fixed quotas for the types and quantity of raw material and energy consumption increased by 11 percent, while the scope of the quota reached 84.7 percent.

The statistics of the 42 enterprises in Shanxi Province show that 40 percent of the enterprises scored 100 percent in their measurement accuracy, while the remainder of the enterprises also raised their accuracy by a wide margin. Many enterprises even strengthened their news work. They not only perfected such work as original records and desk accounts, but also emphasized market news in a more timely and all-round fashion than in the past.

Eighth, We Launched Pilot Projects in the Reform of Enterprise Wage and Bonus Systems.

In 1982, a group of enterprises made different attempts at reforming the wage system. Their common characteristic was to link up the income of the staff members and workers with the business, good or poor, of the enterprise and the contribution, big or small, of the individual. More enterprises (mainly the enterprises which were trial-implementing the substitution of tax payment for profit delivery) were developing in the direction of floating wage and the performance wage system. The basic methods were: Concentrate a portion of the income of the staff members and workers (including a portion of the basic wages as well as bonuses and subsidies in the form of wages) for redistribution, with upgrading and downgrading, according to the actual contribution, big or small, of the individual. Some enterprises even made use of the rewards fund which the state allotted to the enterprise to implement floating promotion inside a factory. The implementation of these methods realized in a better manner the principle of distribution according to work, and played an active role in rewarding the hardworking and penalizing the lazy and urging the staff members and workers to make progress.

Ninth, We Strengthened the Ideological and Political Work of the Staff Members and Workers, and Promoted the Building of a Spiritual Civilization in the Enterprise.

In 1982, the first group of enterprises to undergo rectification as well as the other enterprises generally attached importance to the ideological building and organizational building of the party. Some enterprises even integrated the rectification of the enterprise with the rectification of the party's basic-level organizations. They started with rectifying and strengthening the political work rank of the enterprise, and paid attention to integrating in a better manner the building of a spiritual civilization with the building of a material civilization. For instance, the enterprises in Shanghai Municipality systematically carried out education on communist thinking for the staff members and workers. The enterprises in Tianjin Municipality popularly carried out education on the "three histories" (modern history, party history and the history of the factory) and "three deep loves" (deep love for the motherland, deep love for socialism, and deep love for the party). They also popularly paid attention to improving the forms and methods of ideological and political work, thus obtaining better results than before. In some enterprises, the proportion of advanced staff members and workers continued to expand, and model figures continued to emerge.

Tenth, We Promoted the Growth in Production and the Raising of Economic Results.

In 1982, according to constant specifications, the gross value of output of the state-run industrial enterprises within the budget was 6.4 percent over the preceding year, the income from sales was up by 6.2 percent and the labor productivity for all personnel was up by 2.8 percent. The cost of comparable products was slightly lowered. The profits and taxes delivered to the state also increased. The product quality was also raised. In 1982, 52 industrial products won the gold medal from the state, while 340 products won the silver medal from the state. The rectification had produced results. This was markedly manifested in the large-scale and medium-sized core enterprises which belonged to the first group to carry out rectificiation with emphasis. The statistics of the 553 large-scale and medium-sized core enterprises in 13 provinces and municipalities which belonged to the first group to carry out rectification with emphasis show that the growth in the economic results for the months of January through November 1982 over the corresponding period of the preceding year was higher than that of the other enterprises. For instance, the profits delivered to the state were 4.5 percent higher than the level throughout the country. Of course, the raising of economic results in an enterprise is the comprehensive result of work in various respects. In some cases, it is also difficult for the results produced from the all-round rectification of the enterprise to fully represent the economic results of that year.

Although we scored relatively great results in the work of enterprise rectification in 1982, yet the pace of the work of rectification in many units is still slow, the quality still low and the results still not ideal enough. By the end of March 1983, the 10,883 enterprises which were listed as the first group to undergo rectification throughout the country were checked for acceptance by the higher-level leading organs and only 17.3 percent passed the check. Among these enterprises, there were 1,320 large-scale and medium-sized core enterprises, and only 13.6 percent passed the check for acceptance. The primary reason for the slow progress was the lack of understanding of the leading personnel of some units in the importance and urgency of enterprise rectification, and their failure to emphasize the work effectively and firmly. They lacked high criteria, strict demands and the spirit of daring to "confront the tough," and lacked the effective measures in regard to some important issues.

In accordance with the demand made at the Fifth Session of the Fifth NPC on "accelerating the pace and raising the quality of the enterprise rectification," in the future, under the new situation of the development in depth of the work of reforming organization and reforming the economic system, we must correctly handle the relationship between rectification and reform. We must work hard to make sure that roughly 70 percent of the large-scale and medium-sized core enterprises and over 20 percent of the small-scale enterprises throughout the country will reach the criteria of check for acceptance in the rectification in five respects by the end of 1983. Those enterprises that have passed the check for acceptance in the rectification in five respects must, in the course of building "six good" enterprises, raise the "three construction

projects" onto a new level. On this basis, we must further emphasize all-round planned management, all-round quality control, all-round economic accounting and all-round personnel and labor management in all the enterprises. In accordance with the principle of "taking oneself as the key, drawing strength from everyone else, blending and refining, and having a style of one's own," we must conscientiously sum up the experiences and lessons in enterprise management in our country, positively learn from and borrow the advanced experiences in modern management of foreign countries, and gradually set up a science of management of socialist industrial enterprises with Chinese characteristics, so as to speed up the realization of the modernization of our country's enterprise management.

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AGRICULTURE--CHINA'S CASH CROP FARMING INDUSTRY

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[Article by Shen Qizhu [3088 0366 6999] and Ding Baohua [0002 0202 5748]]

[Text] During 1982, China's cash crop farming industry maintained continued growth following several consecutive years of bumper harvests. Despite unfavorable weather conditions occasioning waterlogging in the south and drought in the north in several major cash crop growing areas, bumper crops were harvested and, in some cases, all-time high records were set. (See table below)

Table Showing 1982 Area and Output of Several Major Cash Crops

Crop	Area (10,000 mù)		Gross output (10,000 dan)		Yields per unit of area (jin/mu)	
	1981	1982	1981	1982	1981	1982
Cotton	7,777.6	8,742.6	5,935.3	7,196.9	76	82.3
Oilbearing crops	13,701.2	14,014.6	20,410.4	23,634.6	149	169
Sugar crops	1,480.6	1,673.4	72,056.8	87,188.0	4,867	5,210
Sugarbeets	653.7	693.4	12,720.6	13,424.0	1,946	1,936
Sugarcane	826.9	980	59,336.2	73,764.8	7,176	7,527
Fluecured tobacco	879.5	1,332.7	2,557.4	3,695.6	291	277
Jute and ambari hemp	459.2	368	2,520.2	2,120.7	549	575
Tea	--	--	685.2	794.6	--	--
Fruit	--	--	15,601.8	15,424.1	--	--
Silkworm cocoons	--	--	622.1	628.0	--	--

The main reasons for fine achievements in production of cash crops during 1982 were, first, policies stirred the enthusiasm of the broad masses of people; and second, better application of science to production. It was a year of development in-depth of agricultural responsibility systems that saw more than

90 percent of production teams institute contract systems linked to output, 78 percent of which were systems of contracting to households linked to output. This form of responsibility system made full use of the strengths of family farming while maintaining socialist public ownership. Numerous cash crop growing areas such as the cotton-growing areas of the Huang He basin and of the middle and lower reaches of the Chang Jiang, and the tobacco-growing area of Henan Province developed from contracting linked to output, to business contracting, and contracting across commune and brigade lines, etc. Some also built systems of cadre personal responsibility and technical responsibility systems on the foundation of production responsibility systems, thereby arousing the enthusiasm of peasants, cadres and technical personnel. In the process of consolidating contract systems linked to output, a group of specialized households emerged in every cash crop growing area. They contracted somewhat more land than peasant households in general, and their level of production management was also somewhat higher. As a result, product costs were relatively low, yields per unit of area high, volume of sales large, and economic effectiveness good. Development of specialized households marked a new point of departure in the transition to modernization and specialization of cash crop production. With the consolidation and perfection of contract systems, an overwhelming majority of production teams signed contract agreements to meet state plan requirements, and cash crop procurement plans were better fulfilled than in previous years. In 1982, cotton procurement was more than 10 percent over plan, and oilbearing crops, sugar crops, tea and fluecured tobacco all overfulfilled plan. The state was able to buy all the major cash crops that peasants produced to assure needs of the national economy and the people's standard of living.

In 1982, in accordance with the state's stipulation "do not relax food production, actively develop the diversified economy" and on the basis of the several years of revisioning of the distribution of cash crop production already accomplished, further revisions were undertaken. In the south, many localities which are superior in the production of foodstuffs and cash crops had no further expansion of cash crop areas; areas where the economic benefits of raising foodstuffs outweighed by far the raising of cash crops, such as the cotton raising districts of the Chang Jiang basin, consolidated some of the scattered, not very productive cotton fields and converted them to food production. In the north, some farmland in the Huang He valley where food crops were giving low economic benefits were changed appropriately to cotton and peanut production. In the northeast, Nei Monggol and northwest areas, saline and waste lands were planted in appropriately adaptable cash crops such as beets, sunflowers, and safflower. In addition, hills and mountainsides were used to cultivate more citrus and tea. During 1982, various areas also further implemented the policy measures of the production of linked cash crops such as sugar-grain and cotton-grain and other combinations. At this same time, the reformation of the rural commercial system also promoted the development of diversified economy production.

Further promotion of superior varieties was a major action that increased cash crop yields in 1982. In the case of cotton, for example, statistics from 14 provinces (regions or cities) showed 80 percent of the total cotton growing areas as having been sown to superior varieties in 1982. The growing and

promotion of superior varieties of perennial crops such as tea and fruit saw definite development. Zhejiang Province set up an integrated "four nurseries" system that included superior variety resources nurseries, female-parent nurseries, stock-planting nurseries, and seedling nurseries. In Fujian Province, superior variety tea plantations covered a more than 800,000 mu area in which 90 percent of the plants in an area of more than 100,000 mu in tea plantations of 'Anqi County were superior varieties. During 1982, use of plastic ground mulch entered the stage of widespread promotion. It was used on an area totaling more than 1.77 million mu throughout the country for a sevenfold increase over 1981. For cash crops, it was used on 150,000 mu of cotton, 310,000 mu of vegetables, 300,000 mu of peanuts, 70,000 mu of watermelons, and began to be used on sugarbeets, sugarcane and fluecured tobacco. Use of plastic ground mulch brought yields of between 120 and 150 jin per mu of cotton and even more than 200 jin, or about 30 percent more than from fields where plastic mulch was not used. This meant a net increase in earnings of between 20 and 50 yuan per mu. Plastic ground mulch produced yields of between 400 and 500 jin per mu of peanuts, an increase of 150-200 jin over noncovered fields, for a net increase in earnings of between 20 and 40 yuan. Plastic ground mulch was used on numerous varieties of vegetables for remarkable results in increased yields and increased income. It also advanced vegetable market arrival times for an improvement in off-season supplies. In cities such as Beijing, Tianjin, Jinan, Taiyuan, Shenyang and Xian, plastic ground mulch has found general use in the growing of spring vegetables. In addition, use of plastic mulch on sugarcane in southeastern coastal regions both promotes budding, increases perennial root sugarcane sprouting rates, causes early maturity and increased yields, and can increase sugar content.

Following contracting linked to output, everywhere field care was improved in the production of all kinds of cash crops. Plowing and hoeing was done carefully; more manure was applied; and prevention and control of diseases and insect pests received strict attention. Techniques for the propagation and transplantation of seedlings spread very rapidly. Skills that had formerly been used on crops such as fluecured tobacco, vegetables, tea and fruit came to be applied in recent years to cotton, sugarcane, rape, and sugarbeets for very good results. During 1982 the country's cotton growing area using transplanted seedlings increased to more than 14 million mu, up more than 4 million mu from 1981 and accounting for 16 percent of the total area sown to cotton. Jiangsu Province spread this technique very quickly to more than 6 million mu, or more than one-half the province's cottonfields. In Guangdong Province alone, transplantation of sugarcane seedlings was done on more than 600,000 mu. Seedling transplant techniques found widespread use and played a definite role in the growing of sturdy seedlings, in getting full stands of seedlings, in planting crops at the right time, and in increasing yields.

With the spread of contract systems linked to output in 1982, the peasants were filled with zeal for studying and using science, and every place vied for the services of agricultural technical personnel, which the masses termed grabbing a "god of wealth." Under the impetus of this situation, cash crop growing areas in all provinces (regions and municipalities) launched training in farm techniques. Statistics show the enrollment of more than 9 million people in cotton training programs alone in Shandong, Hebei, Shanxi, Jiangsu and

Anhui Provinces. In some cash crop growing areas, a group of farm technique promotion organizations and plant protection and seed service organizations were established during 1982.

The following problems continued in cash crop growing areas during 1982. First, channels for movement of crops did not meet needs in development of production. As commodity production developed, procurement and marketing of agricultural sideline products solely through state-owned business channels caused increasingly prominent conflicts. For example, after consecutive year bumper harvests of cash crops such as tea and fruits, in some places it became difficult to make sales during peak seasons. This gave rise to accumulations in storage with losses resulting from molding and rotting. Meanwhile, other places might frequently be experiencing a severe shortage of the same products. Second, the lack of diversity and quality of cash crops both need improvement. China has a large population with little cultivated land per capita; increases in output depend mostly on increasing yields per unit of area. Right now yields per unit of area are not very high for cash crops and a large potential exists. The gap between yields from intermediate- and low-yield areas that make up two-thirds of the cultivated areas and high-yield areas is also very great. Quality of some products, such as fluecured tobacco is on the decline. Particularly for tea, cocoon silk, fruits, and such exports, quality of raw materials and of processing must be improved. Third, all cash crop areas urgently need the help of agricultural technical personnel to help them master science and develop production. Since all jurisdictions are urgently awaiting the establishment and perfection of technical promotion systems, superior variety propagation systems, and plant protection service systems, and also require large numbers of specialists, this means that in addition to enrolling more students, agricultural institutions of higher learning will also have to run various kinds of technical training classes. Some rural middle schools will also have to be converted to agricultural middle schools to meet needs.

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CHINA'S COMMUNE AND BRIGADE ENTERPRISES

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 2-IV 4

[Article by Zhang Yi [1728 3015], Commune and Brigade Enterprises Bureau, Ministry of Agriculture, Animal Husbandry and Fishery]

[Text] The country's rural commune and brigade enterprises developed further during 1982. Gross output value of rural industrial sideline occupations reached 89.2 billion yuan versus 79.9 billion yuan in 1981, an 11.6 percent rate of growth. Development of rural industrial sideline occupations brought about increased income for the country, collectives and commune members. During 1982, commune and brigade enterprises paid 4.47 billion yuan in taxes to the country, 30.3 percent more than in 1981. They created 11.55 billion yuan in profits for collectives, 2.0 percent more than in 1981; and total wages of commune members employed in industries plus profits returned to brigades for distribution totaled 17.6 billion yuan, 16.5 percent more than in 1981. Counties throughout the country in which commune and brigade enterprise income was greater than 100 million yuan numbered 101 in 1980, 132 in 1981, and 168 in 1982.

1. Commune and brigade enterprise developed further. Development of commune and brigade industries was as follows:

	1981	1982	1982 as a percent of 1981
Number of enterprises (10,000)	72.5	74.9	3.3
Number of people (10,000)	1,981	2,073	4.6
Gross industrial output value (100 million yuan)	579	646	11.6
Gross income from sales (100 million yuan)	511	577	12.9

As a result of readjustments carried out during the past year, both the pattern and mix of products of commune and brigade industries has become more rational: First, industries using agricultural byproducts as raw materials, and those

serving agricultural production, developed relatively rapidly. During 1982, output value of commune- and brigade-operated food industries throughout the country rose to 5.56 billion yuan from 4.36 billion yuan in 1981, up 27.5 percent. In Fujian Province, income from sales of agricultural and sideline product processing industries was 1.7 times more in 1982 than in 1981. In Shandong Province, commune and brigade canned goods production increased two-fold and output of dairy products onefold. In order to support specialized households and key households, commune and brigade livestock feed industries developed from nothing. Yearend statistics for 1982 showed more than 2,900 commune and brigade operated livestock feed plants, or 83 percent of the country's livestock feed plants, with an output of 2.5 million tons or 49 percent of the national gross output. Second, some communes and brigades used commune and brigade industries as mainstays in energizing specialized households to gradually form into specialized production centers. The acrylic fiber processing industry in Li County, Hebei Province used 8 commune- and brigade-operated plants as mainstays to involve more than 10,000 specialized households totaling 85,000 people in dyeing, spinning, weaving, sewing, buying and selling acrylic fiber. This amounted to 12 percent of total peasant households and 25 percent of total peasant households and 25 percent of the total peasant population. They produced more than 1,500 tons of fiber and more than 18 million pieces of finished clothing annually for net earnings of more than 50 million yuan. Ciyuduo Commune in Liaozhong County, Liaoning Province had more than 3,000 households engaged in production of clothing. This was 34 percent of all peasant households. Gross income amounted to 7.5 million yuan or an average of 250 yuan per commune member. Third, most plants put improvement of quality and responsibility to customers above all else. Four of the five premium-quality milk powders selected by the Ministry of Agriculture, Animal Husbandry and Fishery in 1982 came from commune- and brigade-operated plants, namely, Feifeng, Meile, Kongque, and Beilu brands. Selected for receipt of a national silver award was Xingqiuxianbao brand fireworks from Liling County in Hunan, and Yangqiao brand sickles from Tengxian County in Shandong Province. Best products selected through an evaluation of industries producing the same products throughout the country included Taishan brand writing brushes from Yexian County, Shandong Province; and lightbulbs from the Guangming Lightbulb Plant in Jiading County, Shanghai, which took first place for 2 consecutive years. Fourth, economic effectiveness increased even further as a result of the reorganization of enterprises. Statistics from Hubei Province show a 28.8 percent rise over the same period last year in output value of reorganized enterprises, and a 65 percent increase in earnings from sales. For enterprises as a whole, the increases were only 19.9 and 20 percent, respectively. The profit rate per 100 yuan of output value was 27 percent, and the labor productivity rate for all personnel rose 29 percent. The following table shows economic effectiveness of commune- and brigade-operated enterprises in the whole country for 1982.

	1981	1982	Percent of increase in 1982 versus 1982
Output value per 100 yuan of fixed assets	192 yuan	214 yuan	11.5
Labor productivity rate of all personnel in industries	2,922 yuan	3,200 yuan	9.5
Number of turnovers of working capital	4.9 times	5.1 times	4.1 times
Profits per 100 yuan of output value	20.3 times	18.6 times	-8.4

2. Commune and brigade construction industries developed rapidly. Development in recent years is shown in the following table:

	Commune and brigade construction teams (10,000)	Construction crews (10,000 people)	Income (100 million yuan)
1978	4.6	235	26
1979	4.9	298	35
1980	5.1	334	45
1981	4.8	349	53
1982	5.4	421	75
Percent increase for 1982 versus 1978 (percent)	17.4	79.1	188.5

Not only did commune and brigade construction teams undertake construction tasks in the building of new villages and small towns, but also worked together with state-owned construction companies everywhere to do a large amount of urban construction, becoming an indispensable force in urban construction. In 1978, Jiangsu Province began to organize more than 30,000 people in construction teams to go to Daqing City to work. By 1982, they had built more than 600 multistory houses covering a 3.66 million square meter area, gross earnings from the contracting of work amounting to more than 170 million yuan. Ninety percent of all construction was completed in the same year it was begun. In Tianjin, the Jianxin Construction Company subcontracted the building of 126,000 square meters of housing to rural construction teams (the company sending out 69 staff members and workers to provide technical and managerial direction). Work began in March and was finished by the end of the year, each worker completing an area averaging 94 square meters of construction. Output value per person averaged more than 13,000 yuan, which was 2 to 4 times the average for the city.

3. Despite fuel shortages, commune and brigade transportation industries and hauling, loading and unloading industries developed. Development in recent years is shown in the following table:

	Transportation teams (10,000)	Number of people (10,000)	Earnings (100 million yuan)
1978	6.5	104	19
1979	8.2	117	23
1980	8.9	113	24
1981	8.9	107	25
1982	9.6	113	29
Percent increase for 1982 versus 1978 (percent)	47.7	8.7	52.6

In addition to engaging in collective transportation, in recent years 1.27 million households of commune members have pooled funds to form partnerships, or individuals have independently purchased motor vehicles, large and medium tractors, and hand tractors to go into business hauling passengers, freight or transporting goods for sale. This has played an active role in the movement of farm products, in spurring development of production, and in solving peasant difficulties in selling farm produce.

4. Commune businesses and "service trades" have developed fairly rapidly. For details, please see the following table:

	Number of enterprises (10,000)	Number of people (10,000)	Earnings (100 million yuan)
1978	12.4	144	24
1979	14	147	22
1980	14.8	153	32
1981	15.6	153	43
1982	17	162	50
1982 increase over 1981 (percent)	37.1	12.5	108.3

Statistics from 10 counties in Liaoning, Heilongjiang, Shandong, Shanxi, Henan, Zhejiang and Fujian Provinces show that after peasants had met their own needs for farm produce and satisfied state procurement quotas, they had to find markets for 15 percent of production. Today, rural villages in these counties have 8,930 sales outlets in a business network of which 3.4 percent are state-owned businesses, 46.1 percent are supply and marketing cooperatives, 27.7 percent are commune- and brigade-operated businesses, and 22.8 percent are peasant newly operated cooperative businesses. In addition, there are 13,000 individually operated businesses. However, in terms of total retail sales of

goods, state-owned businesses accounted for 43 percent of sales, supply and marketing cooperatives 42 percent, commune- and brigade-operated businesses and cooperative businesses 10 percent, and individual businesses 5 percent. The trend is toward further development of rural collective and individual businesses and service industries, under the guidance of correct Central Committee policies.

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CHINA'S AQUATIC PRODUCTS INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 4-IV 6

[Article by Yu Zhenyan [0060 2182 6056]]

[Text] Following 3 years of readjustment, by 1982 China's aquatic products industry had preliminarily solved the problems of one-sided emphasis on marine aquatic products production while neglecting freshwater production, and the tendency to emphasize catching aquatic products rather than rearing them. This has gradually made the structure of the fishing industry more rational, and its path of development is more in keeping with the country's circumstances. In 1982, gross output of aquatic products reached 5,155,000 tons, up 11.9 percent over 1981 and 9.8 percent higher than the all-time high year of 1977. This was the first time that the 5-million-ton mark had been broken.

1. Increasingly Serious Attention to the Aquatic Product Breeding Industry for a Steady Climb in Output

In 1982, the Ministry of Agriculture, Animal Husbandry and Fishery convened a national work conference on the freshwater fishing industry. Both the CPC Central Committee and the State Council approved and forwarded the Ministry of Agriculture, Animal Husbandry and Fishery's "Report on Hastening Development of the Freshwater Fishing Industry." This report emphasized the need to use the country's farflung water surfaces and beach flats for development of the aquatic products industry, particularly the breeding of aquatic products, even while taking a firm grip on grain production. This provided very great impetus to further development of the aquatic products breeding industry. With support from provincial governments and agricultural committees, 29 provinces, municipalities and autonomous regions throughout the country convened a conference on study of the fishing industry in 1982. This was the first time such a conference had been convened since the founding of the nation. Numerous provinces made decisions on hastening development of fishing industry production.

As a result of further implementation of production responsibility systems and active development of economic diversification in the country's farflung rural villages, increasingly serious attention has been directed to the breeding of aquatic products, and the area devoted to the breeding of aquatic products has been expanded further. More than 70 percent of the country's freshwater

fishing industries have already instituted contract responsibility systems linked to output, including more than 90 percent of freshwater fishing industries in Guangdong, Fujian, Zhejiang, Jiangsu and Shandong Provinces. Everywhere a group of key households and specialized households engaged in the rearing of fish have emerged--some 208,000 households in Guangdong. In addition, a group of households earning 10,000 yuan from the rearing of fish have appeared in various places. The number of households engaged in the rearing of fish has increased from 1.6 in 1981 to 2.2 million, a 37.5 percent increase. Growing of fish fry and rearing of mature fish in rice paddies has greatly developed as an accompaniment to agricultural "double contract" responsibility systems contracting of sole responsibility for output and for task completion. Statistics from 12 provinces show a more than 6 million mu area devoted to this, with output of mature fish from paddy fields alone reaching more than 25,000 tons. In more than 300 counties and cities throughout the country, reared fish output has quadrupled over what it had been in 1978. Key counties with freshwater fish outputs of more than 5,000 tons have grown from 35 to 40. The state has invested capital construction funds in freshwater commodity fish bases covering a 500,000 mu area, an increase of 25 percent for a doubling of output to almost 50,000 tons. The freshwater fish rearing area throughout the country has grown to 45.75 million mu, up 6 percent from 1981. Following a 30 percent increase in output achieved in three large strides during the past 3 years, output has again risen by 19 percent to 1,207,000 tons.

Marine breeding has also developed greatly over a 2,438,000 mu area, for a 17.3 percent increase over 1981. A 460,000 mu area is devoted to fish, shrimp and particularly valued seafood bases. In 1982, national marine reared output reached 495,000 tons, up 8 percent from 1981. Output of prawns, marine fish and particularly valued seafoods that had been reared increased particularly rapidly for a further rise in their proportion of marine reared output as a whole. Artificial marine breeding developed further. Preliminary successes were scored in breeding experiments conducted in Xiangshangang in Zhejiang Province and Dongwuyang in Fujian Province. Growing of kelp, which is of crucial importance in marine breeding, covered a 230,000 mu area in 1982, a 7.9 percent increase over 1981.

2. Readjustment of the Composition of Fishing Catches Accompanying Changes in Marine Resources

Overfishing of China's in-shore waters over a long period of time has resulted in the decline of major economic fish traditionally caught in in-shore waters. As a result, the state has put forward a course of development for protection of in-shore marine products, rational use of resources, increase in open ocean fishing and exploration of the high seas. As a result of several years readjustment, damaging in-shore fishing practices such as dragging nets along the bottom and fixed-net operations have been suitably curtailed. Instead, seining, use of drift nets and hooking of lesser locally scattered fish species in the middle and upper strata is being done. In 1982, output from seining was 38.7 percent greater than in 1978, rising from 12.9 to 18.2 percent of total marine catches; drift-net output increased 61.8 percent, the proportion rising from 4.4 to 7.3 percent; and hooking output increased 103.6 percent,

the proportion rising from 0.9 to 1.8 percent. However, during the 3 year period 1979-1981, more than 20,000 motorized fishing boats with a horsepower totaling more than 740,000 horsepower went into service for the first time. About 80 percent of these new fishing craft were small boats of less than 20 horsepower. More boats went into service during 1982 than in 1981, when the number increased by 31 percent and horsepower rose 9.3 percent. This included 45 percent of small fishing craft of less than 20 horsepower for a 23.1 percent increase in horsepower. The large increase in numbers of fishing boats, and particularly by agricultural sideline production communes and brigades and individual households, was a way of making wealth through development of economic diversification into in-shore fishing operations. As a result, fishing became even more intense in the already crowded in-shore fishing grounds giving rise to new contradictions in readjustment work. Today, a problem that will bear serious watching is whether local lesser species of dispersed resources will become endangered as a result of the increase in the number of fishing boats.

Readjustments in marine fishing industry communes and brigades during 1982 meant largely the initiation of economic diversification, widening production avenues, developing integrated fishing, industrial and commercial enterprises plus various kinds of processing and transportation industries, as well as expansion of deep sea operations. The year saw continued decline in outputs of major economic fish such as large and small yellow croakers, and output of kelp, which stands first in marine output, also declined, with individual plants becoming increasingly rare. Output of prawns in Bohai declined tremendously, making 1982 the year of lowest output during the past 20 years. Output of black scrapers in deep sea areas, of shrimp and of Trachypenaeus curvrostris in in-shore areas as well as of lesser varieties in places having a short food chain mounted. During 1982, marine catches gross 3,098,000 tons, which though lower than for 1977 and 1978, showed an 11.7 percent increase over 1981. It remains to be seen whether continued decline of these major economic fish varieties while lesser, more widely scattered species in places with short food chains increase will bring about a greater stabilization of resources. The aquatic products sector is watching this matter very closely.

During 1982, 17 key state-owned marine fishing companies throughout the country acted to strengthen administration and management, to implement personal responsibility systems, to develop deep-sea fishing, to open new fishing grounds, and to train staff members and workers. Production rose further as a result. Gross output was 582,000 tons, up 14 percent from the previous year, and gross profits from fish catches reached 43.73 million yuan, an increase of 42 percent over 1981.

3. Acceleration of Scientific Research and Promotion of New Techniques With the Emergence of New Forms of Scientific and Technical Services

Under guidance of the program decided on in 1981 at the National Aquatic Products Scientific and Technical Work Conference, scientific research on aquatic products scored substantial successes during 1982. Within a short period of time a three-pronged attack in scientific research, teaching and

production was launched on techniques for the assembly line breeding of shrimp larva, and very fine results were obtained from breakthroughs that were scored and their application to production. During 1982, 2.6 billion shrimp larva were bred, highest larva yields being 382,900 per cubic meter of water, reaching advanced world standards and providing plentiful supplies of shrimp larva for rearing. Success was obtained in research on the raft reproduction of agar. As a result, a spring and a fall crop may now be grown each year in ocean areas of north China, yields amounting to 2,600 jin per mu (or 800 jin of sundried product); output value amounting to 2,400 yuan, and net profits amounting to 350 yuan per mu. This provides technical experience in the growing of agar in the sea and increases breeding varieties. Exports and sales of algin have suffered for a long time as a result of poor quality. Current research using fixed-phase twist transformation [0942 4161 2278 0678 6567 0553] technology to obtain algin has solved the problem of inconsistent viscosity of algin. As a result, impurities have been greatly reduced and export standards have been met. This holds benefits for development of kelp breeding and development of the marine algae industry. Use of black scraper and other junk fish, as well as the heads, skin, viscera and such waste materials to produce liquid fish protein is a technique requiring little investment and low energy consumption that can be performed easily and rapidly for remarkable economic results, and that can be easily promoted. Research successes have opened a new avenue for prompt disposition of low-value fish. Very good economic results have been obtained from the technique of using plastic fish chests instead of wooden chests for packing fish to preserve freshness. Already 150,000 such cases have been test produced and are being promoted for use in 8 provinces and cities by more than 10 fishing companies and supply and marketing companies. It has been calculated that a single plastic fish chest costing 8 yuan may be used for more than 2 years, while a single wood chest, though costing only 2 yuan, may be used for only 2 months. Thus, the cost of plastic fish chests is only one-third that of wooden chests. Were plastic fish chests to be promoted throughout the country, a saving of 7,500 cubic meters of lumber could be realized. Basic research on prevention and control of fish diseases has achieved breakthroughs. Successful research has been done on the preservation of cell stems at the tips of the snouts of grass carp, transmitted for more than 120 generations. Success has also been achieved in experiments on viral infections. This sets the stage for prevention and control of viral diseases in grass carp and for assembly-line production of vaccines. By using differences in water levels between tides to rear fish in running water, excellent results have been achieved in obtaining yields averaging 4,030 jin per mu from a 15.7 mu water-surface area. Artificial breeding of Clarias batrachus brought in from Thailand has succeeded. Experiments with rearing in three separate ponds has produced an output of 2,889.6 jin at a cost of 0.33 juan per jin. Experience has thus been gained in promoting the rearing of a new variety of fish. Success has been achieved in the artificial breeding of hilsa herring and catching of fry for rearing. Several tens of thousand fish fry measuring more than 10 centimeters have grown into hilsa herring weighing 631 grams. Yields per mu of hilsa herring grown with other fish in ponds have been 50 jin per mu. Yet another successful experiment has been the culturing of baidiebei [4101 5805 6296] pearls measuring 15 x 14.7 millimeters and weighing 4.5 grams. Use of livestock and poultry dung that has been fermented to make puffed feed for rearing fish has brought prawn yields averaging 208 jin per mu from

1,000-odd mu of water surface. These achievements have already been evaluated and approved, and they provide a foundation for future promotion of scientific and technical accomplishments.

During 1982, emphasis was given the promotion of all-round techniques for producing consistently high yields of fish from ponds, breeding fish fry in paddy-fields, prevention and control of diseases of hybrid common carp and grass carp, breeding fish fry in mesh cages, feeding pellet feed to fish, use of waste heat from diesel engines on motorboats and junks, and rearing Tilapia nilotica, all of which have produced varying degrees of success. The rearing of Tilapia nilotica, for example, has spread to 11 provinces, municipalities and regions over an area of 440,000 mu with output of 22,000 tons. Tilapia nilotica alone have produced yields of 100 jin per mu when reared with other fish in ponds. The rather good results have added technical measures for concerted rearing of high-yield fish.

New forms of organization also emerged during 1982 in the country's scientific and technical work. For example, Wuxi City in Jiangsu Province, Linghu District in Huzhou City, and Haiyan County in Zhejiang Province set up technical service companies for fish rearing, which provided technical services on payment of fees, through contracting, or compensated transfer of possession. They helped newly developed fish rearing areas, or provided techniques to units lacking skills in the rearing of fish, increased yields per unit of area, and promoted the exchange and spread of fish-rearing skills. In addition, some provinces adopted technical responsibility systems linked to output or used technical contracting. All these efforts hastened the spread and application of scientific and technical achievements for aquatic products, provided impetus, and were welcomed by the broad masses of fishermen and peasants.

4. New Development of Education in Aquatic Products and Training of Staff Members and Workers

In 1982, actions were taken aimed at the proportional imbalance that had occurred in bringing along upper- and middle-level personnel in aquatic products training institutions, difficulties in assigning graduates, the lack of specialized personnel on the front lines, and the lack of scientific and technical knowledge about aquatic products among the broad masses of fishermen and peasants. In addition, by way of upgrading the professional competence of staff members, workers, and cadres in the aquatic products system, 37 people were transferred from aquatic products administrative units and institutions of higher learning to form 6 teams, which were then sent to Liaoning, Shandong, Jiangsu, Shanghai, Zhejiang, Gujangdong, Fujian and Hubei to work in aquatic products units, higher educational units, personnel units, aquatic products institutions of higher learning, fishing industry companies, and fishing communes and brigades. They conducted surveys and studied specialized facilities in aquatic products institutions of higher learning, goals to be achieved in training, sources of students, and placement of graduates. They proposed ways and means of running higher education in aquatic products, setting the stage for further reforms.

They devoted attention to technical secondary school joint running of courses. In order to actively develop the freshwater fishing industry, they decided that Sichuan and Hebei aquatic product schools would train freshwater fisheries technical personnel for 13 inland provinces and regions urgently awaiting solution to the lack of freshwater fishery technical personnel in border provinces and regions, and inland provinces and regions without aquatic products schools.

They launched training of staff members and workers for the aquatic products system. Following the convening of the first training work conference in May 1981, training of staff members and workers for the aquatic products system has been given serious attention by all levels of the party and government, and leaders of all units. Statistics show that as of the end of 1982, 19 provinces (municipalities and regions), and the Aquatic Products Bureau of the Ministry of Agriculture, Animal Husbandry and Fishery had run 110 aquatic products training classes and trained 4,500 cadres for positions above the deputy section chief level. Statistics from 15 provinces, municipalities and regions show fishing industry units to have trained a total of more than 300,000 fishermen and peasants. After more than a year of training, cadres, staff members, and workers were generally better able to guide and organize production, and had improved their ability to manage and their labor production skills. This played a role in advancing production, improving management and improving the labor productivity rate.

Following the 1982 National Agricultural Secretaries Conference and the National Commercial Work Conference, rural policies were further liberalized, and new development of specialized households, key households, as well as various forms of a cooperative economy occurred. The rural economy moved gradually toward specialization, socialization and large-scale commodity production, and toward modernized agriculture. The new circumstances called for the following several things to be done on the aquatic products supply and marketing front.

(1) Following liberalization of procurement and marketing policies for aquatic products, cities continued to be assured receipt of fixed quantities of aquatic products. It was necessary, at the same time, to actively organize participation in varied procurement and marketing activities, to handle fish cargoes, to regulate supply, to hold down prices, and to bring into play the dominant and leading role of state-owned businesses in markets.

(2) In the current process of solving problems in movement of aquatic products, most important was to provide news to aquatic products businesses, on the one hand, and, on the other hand, to find ways to provide fish fry, techniques, feed and such social services, while at the same time grassroots aquatic products companies had to take the initiative in organizing the various links of production, supply, storage, processing, transportation and marketing with specialized households and specialized units, and to strengthen economic ties with them. Aquatic products companies and aquatic products supply and marketing stations had to become nuclei for the economic activities of specialized households and specialized units.

(3) Full use of manpower, material and financial resources of aquatic products companies and aquatic products stations to launch production, storage, processing, transportation and marketing movements, working together with and forming partnerships with production bases and processing enterprises, and providing all kinds of services.

(4) Active assistance to collective and to commune and brigade enterprises and development of fisheries, industry and businesses. All coastal areas had to actively lend a hand to local models who did a good job of cold storage, maintenance of freshness, processing, transportation and marketing, and to spread their experiences. Zhangzidao Commune in Changhai, Liaoning Province, Tuojidao Commune in Changdao, Shandong, and Luomen Commune in Danshan, Zhejiang will have to vigorously support joint fishing, industrial and commercial enterprises. They will have to give active support to their development, summarize experiences, and improve them so that they better meet the needs of development of aquatic products enterprises.

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CHINA'S ANIMAL HUSBANDRY INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 6-IV 8

[Article by Zheng Xingjie [6774 2502 2638]]

[Text] I. The New Situation That Emerged in Animal Husbandry Production

Despite fairly widespread natural calamities in China's rural villages and pastoral areas during 1982, the animal husbandry industry continued to score fairly impressive accomplishments.

1. All-round Sustained Increase in Livestock and Poultry Products

(1) Gross output of pork, beef and mutton increased tremendously reaching 13,508,000 tons by the end of 1982 for an all-time high record and 7.1 percent more than in 1981. This was the 4th consecutive year of tremendous growth since the 3d Plenary Session of the 11th Party Central Committee. Of special interest was the all-round increase in pork, beef and mutton. Pork output was 12,718,000 tons, up 7 percent; beef output was 266,000 tons, up 6.9 percent; and mutton output was 524,000 tons, up 10.1 percent.

As a result of the increase in meat production, the diet of the people gradually improved. Average national consumption of pork, beef and mutton rose from 25.4 jin per capita in 1981 to 26.8 jin in 1982, a 1.4 jin increase.

The size of increased output was a striking feature of meat production during 1982. Eighty percent of all provinces, municipalities and autonomous regions harvested bumper crops, some major producing provinces being standouts. Jiangsu increased output by 185,000 tons, and Anhui, Hubei and Sichuan Provinces each showed increases of more than 50,000 tons.

(2) Milk output reached 1,959,500 tons, up 26.5 percent from 1981. This included a 1,618,000 ton output of cow's milk, up 25.4 percent from 1981, and a 341,500 ton output of goat's milk, up 32.4 percent from 1981, making 1982 the year of most rapid increase during the past several years.

(3) Output of fresh eggs reached 2,815,000 tons, with output from Sichuan, Hebei, Anhui, Jiangsu, Zhejiang, Jiangxi, Henan and Hunan Provinces accounting for 52.1 percent of the national total.

(4) Wool and goat hair output: Sheep's wool output reached 202,000 tons, up 6.8 percent from 1981. This included a 47,000 ton increase from the Nei Monggol Autonomous Region and a 36,000 ton increase from the Xinjiang Autonomous Region. Output of goat hair was 13,000 tons, up 1.3 percent. Cashmere output also increased slightly.

In addition, honey output increased for the 3d year in a row reaching 136,000 tons in 1982, or 23.2 percent more than in 1981.

2. Numbers of Livestock Increased Steadily and Quality Improved

Total numbers of hogs, large draft animals, sheep and goats, increased from 579,073,000 head in 1981 to 583,700,000 head in 1982, an increase of 4,627,000 head, or 0.8 percent. Dressed weight of hogs, cattle, sheep and goats increased 4, 3, and 2 percent, respectively. Outputs of meat, milk and wool or hair increased even more. This showed a rise in livestock quality and economic results that were more remarkable than heretofore, and demonstrated the complete correctness of regulations instituted during the past 2 years whereby assessment of livestock production achievements was based primarily on product output rather than primarily on numbers of animals in inventory.

Information on increases in all categories of livestock is provided below:

(1) Hogs. During the 2 years following 1979, the number of hogs in inventory throughout the country declined. With the implementation throughout the whole country of the spirit of the State Council bulletin on development of hog production, the revival and carrying into effect of policies providing for livestock fodder fields, feed grains and various kinds of bonuses, the development of households specializing in hog raising, and the institution of policies for set numbers of fattened hogs, or proportional assigned procurement, or contract procurement, which guaranteed markets for products while also taking into account the interests of consumers, it became possible to make a profit from the raising of hogs, and this converted the decline in hog production into a rise. Hogs in inventory as of the end of the year numbered 300,783,000 head, a 2.4 percent increase over 1981. Hogs removed from inventory during 1981 were 3.8 percent fewer than in 1980, but a 2.9 percent rebound occurred in 1982 to break the 200 million mark at 200,627,000 head for an all-time high. The hog removal from inventory rate increased from 63.8 percent in 1981 to 68.3 percent in 1982. The number of sows able to produce litters increased steadily, and the supply of hogs was fairly normal.

(2) Large draft animals. As a result of the liberalization of policies and institution of double contract responsibility systems, some places either apportioned the cost of large livestock animals or contracted them to commune members for feeding. Few died and the survival rate for newborn animals was high. Commune member enthusiasm for the purchase and development of large draft animals reached unprecedented heights. As of the end of 1982, there were 101,127,000 head, 3.6 percent more than in 1981, making 1982 a year of fairly rapid expansion since the founding of the nation. An overwhelming majority of places showed increases. As a result of the early implementation and rapid spread in Henan Province of a system of responsibility for the feeding, care

and reproduction of plow oxen, growth was 10.6 percent. Draft animals such as oxen, horses, donkeys and mules showed varying degrees of increase. The number of oxen rose to 76,073,000 head in a 3.8 percent increase for an all-time high. Superior breeds and improved breeds of milk cows reached 817,000 head, a 17 percent increase.

3. New Breakthroughs in Animal Husbandry Industry Output Value

As a result of development of the animal husbandry industry, its output value reached 45.6 billion yuan, 13.2 percent more than in 1981. This was the greatest growth for any of five lines of agricultural production: farming, forestry, animal husbandry, sideline occupations, and the fishing industry. Figured in terms of current year prices, output value of the animal husbandry industry amounted to 16.37 percent of the gross output value of agriculture, making 1982 a year of rather substantial accomplishments.

4. Flourishing of Both Buying and Selling of Livestock Products

During 1982, quantities purchased of major livestock products increased over 1981, with hog procurement rising 3.7 percent, and fresh egg procurement increasing 5.3 percent. Retail sales of major livestock products and processed products increased over 1981, including a 6 percent increase for pork and a 9.9 percent increase for fresh eggs.

II. Major Experiences

1. An Ounce of Prevention Is Worth a Pound of Care in Improvement of Ability To Withstand Calamities and Protect Livestock

An unprecedentedly fine situation emerged for the animal husbandry industry during 1982 as a result of the joint efforts of people's governments and departments concerned at all levels, and organization of the broad masses of cadres, peasants and herdsmen. During March, April and May 1982, most pastoral areas suffered protracted and repeated blizzard calamities. Waterlogging in the south and drought in the north brought disaster to some agricultural areas. In Guangdong and Guangxi, for example, torrential rains during May caused havoc, with livestock losses in 37 counties. In some pastoral regions there was little rain during summer and fall, and the grasslands were rather seriously drought-stricken. During spring 1982, 22 counties and 103 communes in Qinghai Province's pastoral regions were stricken. In the Ningxia Autonomous Region, 1982 was the most serious drought year since liberation; during July and August, pasture grasses in the grasslands of Yanchi County withered and died, and sheep became exhausted. Thanks to prompt resistance to calamity to protect the livestock, plus movement of livestock to places having grass, individual household care of animals and the spread in recent years of fat lamb production, disaster losses were greatly reduced. In the Xinjiang-Uighur Autonomous Region and in the Nei Monggol Autonomous Region, young livestock survival rates set all-time records, death rates being lower than in normal years.

2. Supporting Specialized Households With One Hand and Supporting Needy Households With the Other To Spur Production and Become Wealthy

"Let some people become rich first, and then help another group of people become rich later until every family is rich," is a summation of China's experiences in developing specialized households for the raising of livestock and poultry; it is also the guiding thought behind development of specialized households.

Formerly, commune households were permitted to raise only a small number of small barnyard livestock and poultry, thus it was very difficult for commune members to become prosperous through the development of family livestock raising. Since the 3d Plenary Session of the 11th Party Central Committee, rural villages everywhere have abolished limitations on commune members raising hogs, sheep and goats, and poultry, and rules prohibiting the raising of large draft animals. Commune members are encouraged to develop family livestock raising vigorously. As of the end of 1982, 96 percent of all hogs in inventory in the whole country were raised by commune members, versus 94.1 percent in 1981, 90.5 percent in 1980 and 80 percent in 1978, a great development. As of the end of 1982, 61.7 percent of sheep and goats in inventory in the whole country was raised by commune members versus 54 percent in 1981, 46 percent in 1980, and 33 percent in 1978, for marked development. As of the end of 1982, 52 percent of all cattle in inventory in the whole country was raised by commune members, versus 29.1 percent in 1981, 12 percent in 1980, and 5 percent in 1978 for a tremendous increase. An overwhelming majority of livestock-raising households gained benefits from the livestock-raising industry. For example, comparison of 1982 with 1978 shows each household in the country provided society with an average of 50 jin gross weight more of hogs; for a more than 30 yuan increase in income. Specialized household and key household income increased even more.

Specialized household and key households developed out of the family livestock raising industry. Some peasants having the requisite conditions and expertise changed from raising livestock as a sideline occupation into specialized livestock raising, changed from extensive operations to intensive operations, and changed from production for self-sufficiency to commodity production to take the path of specialization, socialization and commodity production. During 1982, specialized households and key households for the raising of livestock and poultry expanded fairly rapidly. Incomplete statistics from 21 provinces, municipalities, and autonomous regions show development from 2.3 million-odd households in 1981 to 3.35 million-odd households in 1982, or about 2 percent of all peasant households in the whole country. In Heilongjiang Province, where development took place fairly rapidly, there are now more than 68,000 specialized households and 203,000 key households engaged in the raising of all kinds of livestock and poultry. These "two households" represent 6.9 percent of all peasant households. They are raising a total of 1.67 million head of livestock of all kinds and more than 5 million of poultry, which is 17 percent of the total number of livestock and poultry being raised by commune members. All jurisdictions give positive support and encouragement to the development of the "two households." Some places, such as Lankao County in Henan, link support for specialized households with assistance to needy households.

They have linked calling upon, interviewing, and making friends of wealthy households, with calling on, interviewing and making friends of needy households. This has inspired and encouraged specialized households to act, and it has helped needy households produce to become wealthy. It has organized specialized households to tell their production experiences to needy households as a means of becoming rich.

3. Development of Integrated Animal Husbandry, Industrial and Commercial Interprises

Following establishment in Sichuan Province of the Ruoergai County integrated animal husbandry, industrial and commercial enterprise in 1979, during the last several years, and particularly during 1982, integrated animal husbandry, industrial and commercial enterprises sprouted like bamboo shoots following a spring rain and developed gradually. Not only are they run jointly by collectives, but some are also run by individual farms or single counties, by cities, prefectures and provinces. With progress in organizational restructuring, all jurisdictions set up integrated animal husbandry, industrial and commercial enterprises on a fairly large scale. Incomplete statistics show that as of the end of 1982, there were more than 100 of them. Following Ministry of Agriculture, Animal Husbandry and Fishery reporting to higher authority and requesting of approval, the Chinese Integrated Animal Husbandry, Industrial and Commercial Company was founded in 1982 for the joint operation of a series of projects with 23 integrated enterprises in various places. Beef cattle company retail outlets catering principally to foreign guests began operations formally in July 1982 and were well received. Some provinces and cities formally established provincial and municipal animal husbandry, industrial and commercial companies, assigned leaders and went into business. The Heilongjiang Provincial Animal Husbandry, Industrial and Commercial Company took over the building of 22 projects by three integrated companies, namely Huaqi (in Qiqihaer), Hongmei (in Anda County), and Haerbin (in Haerbin City), began construction of 14 of them, and finished construction on 5 of them in active development of business operations. Each of the companies operates more than 20 stores, restaurants and inns dealing in the production and sale of more than 100 different products for sales of more than 12 million yuan and profits of more than 3 million yuan for vitalizing of the animal husbandry economy. The Huadu integrated animal husbandry, industrial and commercial enterprise in Beijing has developed to the point where it now has modern chicken farms, mixed feed plants, and machinery and equipment plants for the raising of chickens. It set up an egg production system that ranges from design to construction to sales of products. Almost 30 percent of the fresh eggs eaten in Beijing are produced by this company.

4. Organization and Spread of Fodder Grass and Feed, Spread of the Breeding of Superior Breeds and Building of Veterinary Medicine, Pharmaceuticals, Machinery and Technical Services Systems

China has quite abundant prairie grassland and fodder resources holding very great potential. In recent years, leaders in all jurisdictions have devoted serious attention to problems in surveying, utilizing and building up grassland resources as well as to the development and use of fodder. Work

proceeded very fast. By the end of 1982, more than 1,000 counties completed field survey work. Improved grasses were being grown on a prairie and grassy mountain area of 36 million mu, or on 1.1 percent of the natural grassland area, and enclosed grasslands covered 44 million mu, or 1.3 percent of the total grassland area. Superior variety pasture grass seed bases were established in more than 30 places and were producing 30 million jin of superior variety seeds annually. State or joint state-commune farms for the breeding of superior seeds were founded at more than 60 places, the seed field area covering more than 400,000 mu producing almost 5 million jin of seeds annually.

In order to change the lack of diversified fodders in China, and the backward situation of "feeding whatever happens to be available," numerous places set up mixed feed and blended feed plants, and drew up both short-range and long-range plans. Today, the farming and animal husbandry system throughout the whole country has more than 3,000 feed plants and workshops, and every jurisdiction also has a group of large, medium and small feed processing plants under construction.

The broad masses of cadres and technical personnel that man superior-breed livestock stations, breeding stations and frozen semen stations use the new techniques of artificial insemination and breeding using frozen semen. They actively promote superior breeds as well as hybrids that are economically beneficial. They played a role as mainstays in improving quality of China's livestock and poultry, and in bettering the fine-breed reproduction system. During 1982, superior-breed and improved-breed milk cows increased by 120,000 head over 1982. Fine wool sheep and other improved-variety sheep increased by more than 1,920,000 over 1981. Today, Liaoning Province has more than 200,000 improved-breed horses representing one-third the total number of horses in the province. Jiangsu Province initiated the centralized supply at the county level of superior-breed hog semen, which spread to 30 counties. More than 400,000 sows were bred using centrally supplied semen. In Suzhou Prefecture, commodity hogs are superior hybrid breeds, and in Balin Left Banner in Nei Monggol Autonomous Region, thanks to technical contracting, the number of improved-breed oxen increased 2.9-fold in a single year.

In 1982, the Animal Husbandry Bureau of the Ministry of Agriculture, Animal Husbandry and Fishery commissioned institutions of higher learning and research units to run 10 short training courses on livestock breeding farms, scientific and technical management, and processing of milk products, training more than 1,000 technical mainstay cadres for provinces, municipalities and regions.

III. Further Development of a Basic Program for the Animal Husbandry Industry

In the future, under guidance of a program that combines farming, forestry and animal husbandry, the animal husbandry industry will be dealt with as a major industry, and should develop substantially during the period of the Sixth 5-Year Plan. Full potential of labor force resources and natural resources is to be tapped, economic benefits are to be sought and local advantages are to be made the most of. Farming areas will continue to give close attention to the raising of hogs, and while emphasizing increase in the removal from

inventory rate and the lean pork rate, they will adapt general methods to local situations in all-round development of the livestock industry. Large- and medium-size suburban areas will concentrate mostly on improving self-sufficiency in milk, eggs and poultry, and on appropriately developing lean pork hogs. Pastoral and semipastoral areas should emphasize strengthening the building and maintenance of grassy prairies, key construction, rational utilization and readjustment of the composition of livestock herds. They should increase the proportion of female livestock and raise the removal from inventory rate.

They should gradually establish and improve the breeding of superior breeds of livestock and poultry, the supply of hay and fodder, prevention and control of communicable diseases, and scientific and technical services.

The building of north China grasslands should be intensified, and grassy mountains and slopes in south China gradually developed as well. In building the grasslands, a program of "all-round planning, better protection, rational use and building of key areas" must be instituted. Promotion of grassland management and construction responsibility systems should be linked to systems of responsibility for management of livestock herds so as to arouse enthusiasm among collectives and individuals, to protect existing grasslands, use them well and build them well. In view of climatic conditions in China's northern and southern grasslands, northern pastoral areas should build a seasonal animal husbandry industry that makes fullest use of rapid growth of pasture grasses during summer and fall and rapid growth of livestock, with newborn animals being slaughtered in the same year they are born. Southern grasslands should use improved grass varieties for a change in the pasturing of livestock for only half a year to a whole year for full and rational use of grasslands resources.

Continued encouragement should be given development of specialized households for the feeding of livestock and poultry, and to helping needy households. Integrated livestock, industrial and commercial enterprises should be actively and steadily developed, and closely correlated with the rural pastoral area cooperative economy for further vitalizing of the economy.

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CHINA'S STATE FARM AND LAND RECLAMATION ENDEAVORS

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[Text] I. The Year 1982 Was One of Finest Results in the Operation of State Farm and Land Reclamation Enterprises

Despite natural calamities affecting agricultural production of state farm and land reclamation enterprises, outputs of major farm crops such as grain, cotton, sugar crops, tea, cow's milk and dried rubber were higher than in 1981, making 1982 the year of finest results on record for the state farm and land reclamation system. (See Table 1 and Table 2)

Table 1. Results From State Farm and Land Reclamation Operations During 1982

Particulars	1982	1981	1982 increase over 1981 (percent)
Gross output value of industry and agriculture (100 million yuan)	116.2	99.6	16.7
Including: Agricultural output value (100 million yuan)	66.4	55.5	19.6
Industrial output value (100 million yuan)	49.8	44.1	13.0
Profits (100 million yuan)	7.65	2.3	232.6
Labor productivity rate for all personnel (yuan)	2,350	2,008	17.0
Output value rate of profit (percent)	6.6	2.3	4.3

Note: Output value figured at 1980 constant prices

Table 2. State Farm and Land Reclamation System Output of Major Products During 1982

Particulars	1982	1981	1982 increase over 1981 (percent)
Gross output of grain and beans (100 million yuan)	136	122	11.5
Gross output of cotton (10,000 dan)	263	222	18.5
Gross output of sugar crops (10,000 dan)	4,620	3,608	28.1
Gross output of dry rubber (10,000 tons)	13.9	11.5	20.9
Gross output of tea (10,000 dan)	44	38	15.8
Gross output of meat (10,000 jin)	52,212	52,306	- 0.18
Gross output of cow's milk (10,000 jin)	78,745	70,281	12
Gross output of goat hair (10,000 jin)	3,282	2,965	10.7
Sales of grain and beans to the state (100 million jin)	54.15	42.15	28.5
Output of major industrial products			
Electric power generated (10,000 kWh)	64,670	52,617	22.9
Raw coal (10,000 tons)	429.7	416.6	3.14
Synthetic ammonia (10,000 tons)	8.63	7.92	8.96
Chemical fertilizer (10,000 tons)	8.4	6.21	35.3
Cement (10,000 tons)	72.2	52.3	38
Cotton yarn (10,000 bales)	19.4	17.07	13.6
Cotton cloth (10,000 meters)	15,609	12,502	24.9
Refined sugar (10,000 tons)	20.71	18.31	13.1
Milk powder (10,000 tons)	1.41	1.18	19.5

In 1982, the national state farm and land reclamation system had 2,619 enterprises, 2,078 of which were state-owned farms (these farms operating 6,375 industries), 253 independent accounting industrial enterprises, 54 construction companies, 26 transportation enterprises, 175 commercial enterprises and 33 other kinds of enterprises. It employed 4.94 million staff members and workers, had a population totaling 11.52 million, 66.51 million mu of land, and 5.33 million rubber trees. It had invested 1.87 billion yuan in fixed assets, 13 percent more than in 1981. This included a 340 million yuan budgeted investment, 6.3 percent less than for 1981. Staff members and workers earned an average 670.70 yuan, up 3.3 percent from 1981.

II. Successes Scored in Carrying Out Readjustment Program

1. Readjustment of the Internal Structure of Farming. The former sole emphasis on grain was corrected, with cultivated land not suited to the growing of grain being converted to the growing of cash crops. The ratio of the grain crop area to total farm crop area dropped, while the ratio of cash crop area to total farm crop area rose (see Table 3).

Table 3. Changes in Structure of Area Sown to Farm Crops in State Farm and Land Reclamation Enterprises 1978-1982

Particulars	1978	1981	1982
Ratio of grain growing area to total farm crop area (percent)	75.3	75.6	74.6
Ratio of cash crop growing area to total farm crop area (percent)	9.5	11.7	12.2

Note: Grain includes soybeans

The ratio of cash crop growing area to total farm crop growing area increased markedly in some reclamation areas, such as in Xinjiang where production and construction regiments increased the area planted to cotton and sugar crops. As a result the ratio of the cash crop growing area to total area sown rose from 16 percent in 1978 to 27.9 percent in 1982. In Jiangsu Province, state farm and land reclamation enterprises increased the cotton growing area, and in Hunan Province, state farm and land reclamation enterprises increased the sugar crop growing area. Increase in the area planted to cash crops promoted economic diversification and development of food industries, and light and textile industries. In addition, both the area planted to fruit and tea and output of fruit and tea increased considerably between 1978 and 1982, gross output of fruit rising 24.78 percent, and gross output of tea increasing 69.23 percent.

2. Readjustment of the Structure of Industry. As a result of the development of integrated agricultural, industrial and commercial enterprises and processing industries, industrial output value increased as a ratio of the output value of industry and agriculture (Table 4), with the food industry, light industry and the textile industry forming an increasing large component of industry as a whole. State farm and land reclamation enterprises also carried out technical transformation of key areas in a gradual shift from expanding reproduction primarily through extension to expanding reproduction primarily through intension.

Within industry, in 1982 the ratio of state farm and land reclamation food industry, light industry and textile industry output value to state farm and land reclamation industrial output value reached 46.7 percent for a beginning in the building of a processing industrial system dominated by the food industry, light industry and the textile industry. This made for a multiple

Table 4. Changes in the Ratio of Industrial Output Value to Gross Output Value of Agriculture and Industry in the State Farm and Land Reclamation System 1978-1982

Particulars	1978	1979	1980	1981	1982
Ratio of agricultural output value to gross output value of industry and agriculture (percent)	62.35	62.3	59.6	55.72	56.29
Ratio of industrial output value to gross output value of industry and agriculture (percent)	37.65	37.7	40.4	44.28	43.71

Note: Output value figured in terms of 1980 constant prices.

processing of farm and livestock products and a multiple increase in their value. Output value of several major industries among state farm and land reclamation industries as a proportion of industrial output value during 1982 was as follows: food industry, 34.5 percent; textile industry, 12.2 percent; construction industry, 7.9 percent; machine industry, 14.9 percent; chemical industry, 8.2 percent; and coal industry, 2.1 percent. Enterprises producing unmarketable products, products of poor quality, or products requiring high energy consumption were closed, suspended, merged or retooled.

In the course of readjustment, enterprises in key areas were technically transformed. Formerly Xinjiang's Shihezi Cotton Textile Plant could produce only medium-grade cotton cloth from superior-quality cotton. Following technical transformation, however, it has been able to produce high-quality cotton cloth. Seventy percent of the increase in output value of Hubei Province's state farm and land reclamation industries during 1982 resulted from technical transformation.

3. Readjustment of Investment Structure. As a result of past neglect of investment in intellect and the insufficiently serious attention given the standard of living of staff members and workers, productive and nonproductive investment were proportionally unbalanced. In the course of readjustment, the ratio of nonproductive investment to total investment increased, while the ratio of investment in productive construction declined (see Table 5).

Table 5. Ratio of Productive and Nonproductive Investment to Total Investment (percent)

Particulars	1987	1979	1980	1981	1982
Productive investment	80.9	77.5	72.5	68.4	68.8
Nonproductive investment	19.1	22.5	27.5	31.6	31.2
Investment in housing construction	12.1	12.5	15.3	17.6	20.2

During 1982, 4.03 million square meters of housing was built for state farm and land reclamation staff members and workers, 10 percent more than in 1981. During the 4-year period 1979-1982, 300 million yuan or 7.5 percent of total investment, was invested in scientific research, culture and education, and health care. A total of 110,000 square meters of buildings were added for scientific research; 1.4 million square meters of college, middle school and primary school buildings were constructed, and 360,000 square meters of buildings used for medical purposes were built. Though more than 30 percent of total investment during the 2-year period 1981-1982 was nonproductive investment, this was necessary in order to improve living conditions for staff members and workers and to increase investment in intellect.

4. Readjustment of the Structure of Employment. Liberalization of economic policies since the 3d Plenary Session of the 11th Party Central Committee permitted appropriate development within the state farm system of collective ownership and individual ownership economies. Though family-organized collectively owned economies formerly were allowed in Xinjiang and Heilongjiang reclamation areas, they were not very numerous. Following graduation from middle school, the children of staff members and workers who were unable to continue their schooling became a naturally increasing work force that was recruited as staff members and workers on farms. As a result of the reduction of the clearing of wastelands in recent years, and increases in population, absorption of all these children as staff members and workers on farms became difficult. As a result, some reclamation areas stopped taking on the natural increase in work force as staff members and workers on farms. Instead they started running collective enterprises, or else permitted mostly independently run business to solve employment problems for the children of staff members and workers. In recent years, both the collective economy and the individual economy developed fairly rapidly. According to incomplete statistics, the Heilongjiang reclamation area has more than 1,100 collectively owned units of different sizes doing different jobs and employing 90,000 staff members and workers. Individual businesses and specialized households have also developed. At the same time, secondary education has been restructured, with some ordinary middle schools being gradually converted to technical senior middle schools. Following study in technical senior middle schools, farms select graduates as needs require.

III. Reorganization of Some State Farm and Land Reclamation Enterprises

At the beginning of 1982, state farm and land reclamation units everywhere set up projects for the reorganization of enterprises. By the end of the year, the first group of 680 state farm and land reclamation enterprises carried out a reorganization. This was 25 percent of all state farm and land reclamation enterprises.

Ten Liaoning enterprises that were inspected and accepted following reorganization, increased profits by 71.3 percent over 1981. These included seven provincial farms whose 1981 profits of 400,000 yuan increased to 2.04 million yuan in 1982.

IV. Further Development and Perfection of Economic Responsibility Systems

Guided by the spirit of further Central Committee liberalization or rural policies for vitalizing the economy in 1982, and as a result of the institution of contracting linked to output in rural production responsibility systems, responsibility systems of state farm and land reclamation enterprises likewise accelerated the pace of development of systems linked to output and contract systems. As contracting linked to output with staff members and workers gradually increased, some farms abolished the fixed-grade wage system, replacing it with staff member and worker assumption of responsibility for payments to the state, and large-scale assumption of sole responsibility for all rewards and penalties, which brought marked economic benefits. Incomplete statistics show that as of the end of 1982, 32 percent of all state farm and land reclamation enterprises instituted contracting to individual workers or households linked to output, and large-scale contracting of sole responsibility for all rewards and penalties. A survey conducted at 12 farms in Hunan Province shows 610, or 80 percent, of a total of 763 farming and livestock industry production brigades as instituting contracting with individual workers or households linked to output. At Bayannur League in Nei Monggol, the state invested a total of 338 million yuan in 18 livestock farms between 1969 and 1981, and spent 250 million yuan on the subsidization of losses. During the entire period, the farms relied on the state for grain supplies, on state investment for production, and on state subsidization of losses. In 1982, when all units instituted large-scale contracting for sole responsibility, the farms realized profits of 55,000 yuan for the first time. They also sold 2.2 million jin of commodity grain to the state for the first time, and gross industrial and agricultural output value reached 32.82 million yuan, more than double the 1979 figure. Specialized households and key households engaged in raising livestock and farming also appeared on the farms. In Hunan province, 12 farms have a total of 2,475 specialized households and key households, and in 1982 alone, 150,000 head of livestock were removed from inventory.

V. Development of and Strengthening Integrated Agricultural, Industrial and Commercial Enterprises

Between the first trial runs of state farm and land reclamation integrated agricultural, industrial and commercial enterprises in 1979 until the end of 1982, 280 state farm and land reclamation integrated agricultural, industrial, and commercial enterprises were set up throughout the country. This number includes 111 approved by provinces, municipalities and autonomous regions, 85 approved by prefectural cities and 84 approved by counties. Farms participating in integrated enterprises number 1,300 or 62.6 percent of all farms. Network retail outlets number 8,800, and staff members and workers employed in businesses number 52,000.

Economic partnerships among state farm and land reclamation integrated agricultural, industrial and commercial enterprises, communes and brigades, specialized households and key households were developed. Some development of partnerships that transcend trades and industries, or cut across provincial and regional lines also occurred. In addition, some state farm and land reclamation integrated agricultural, industrial and commercial enterprises entered into "three import and one compensation" arrangements (importation of

materials for processing, parts for assembly, and specimens for production and compensatory trade) with foreign traders and Hong Kong merchants in the cooperative development of farming and livestock industries and processing industries.

VI. New Advances in the Application of Science and Technology

During 1982, very great advances were made throughout the state farm and land reclamation system in putting into place policies on intellectuals and evaluating professional credentials. Some improvement was made in both utilization of intellectuals and remuneration paid them.

During 1982, application of agricultural science and technology in the state farm and land reclamation system showed substantial achievements. Since the early 1950's great achievements were made in growing rubber between 18 and 24 degrees north latitude in reclamation areas of Guangdong, Yunnan, Guangxi and Fujian Provinces. As of the end of 1982, the rubber tree area covered more than 6 million mu (including a 5.33 million mu growing area in the state farm and land reclamation system), with 2.83 million mu producing rubber. This demolished the conclusion reached by foreign experts that the rubber growing area would be limited to tropical areas from 10 degrees south of the equator to 15 degrees north of the equator, advancing the rubber growing area northward to 24 degrees above the equator. In October 1982, following evaluation by the State Scientific Commission's Invention Assessment Committee, a reward first class was issued the state farm and land reclamation system for "techniques in the growing of rubber trees over wide areas between 18 and 24 degrees north latitude." Among the awards conferred in March 1982 by the State Agricultural Commission and the State Scientific Commission for promotion of agricultural science and technology, 30 went to the state farm and land reclamation system. Seventy research projects received state farm and land reclamation department awards. Among the new scientific and technical promotion achievements of 1982, the following were fairly outstanding:

1. Xinjiang production and construction regiments' promotion of plastic ground mulch for the growing of 470,000 mu of cotton averaging yields of 115.9 jin of ginned cotton, about a 50 percent increase in output over conventional farming methods.

2. Promotion during 1982 of chemical weed killers over a 28 million mu area, or almost half the entire state farm and land reclamation system's total cultivated land area. This new technique, which was not introduced until 1978, was used on soybean and corn crops. As compared with mechanical methods of weed elimination, chemicals save work, conserve energy, are more effective, and do less damage to seedlings. They can increase yields by as much as between 15 and 20 percent.

3. Application of aviation to agriculture has developed fairly rapidly. Preliminary statistics from Xinjiang, Heilongjiang, Liaoning, Jiangsu, Anhui, Hubei, Shanghai and Zhejiang show agricultural flights over state farms during 1982 covered an 8,553,000 mu area using 83 aircraft flying 8,370 hours, more than 1,000 mu being covered in each flying hour.

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CHINA'S FORESTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 11-IV 12

[Article by Combined Office, Forestry Economics Institute, Chinese Academy of Forestry Sciences]

[Text] The building of China's forestry during 1982 centered around the protection and good use of existing forest resources, and active expansion of the forest area. Investment in forestry capital construction for the year totaled 540 million yuan, 230 million of which was invested by the state. Investment in capital construction of forest industries totaled 640 million yuan including a 460 million investment by the state, which was 89.2 percent of plan. Timber production capacity was increased by 333,000 cubic meters. Gross output value of forest industries in the whole country was 6.78 billion yuan, 2.25 billion yuan more than in 1981 for a 49.7 percent increase. The major situation in Chinese forestry during 1982 was as follows:

I. Completion Ahead of Schedule of Various Forestry Production Tasks

1. Afforestation Work. Afforestation is the foundation for development of forestry. Various tasks in afforestation throughout the country advanced simultaneously in coordinated development.

First, remarkable achievements were made in gathering forest tree seeds, in breeding, and in growing seedlings. In order to meet needs of large-scale planting of trees for afforestation, gathering and breeding of forest tree seeds was intensified. Preliminary statistics show key seed-gathering bases as having been set up at 109 sites throughout the country producing an output of 17.32 million jin of seeds annually from 20 tree species, and key superior-seed bases at 206 places producing 8.54 million jin of superior seeds and 100 million superior-variety trees each year from 17 tree species. In the various provinces and regions of south China, 1.8 million jin of Chinese juniper and 3.22 million jin of masson pine seeds were gathered. This was 700,000 jin and 1 million jin more, respectively, than in 1981. During 1982, 13.9 million yuan was invested in the building of seed nurseries. According to incomplete statistics, 299,000 mu of seed nurseries, 3,716,000 mu of seed-bearing trees, and 10,000 mu of grafting stock nurseries were planted throughout the country. As of the end of the year, seedlings were being grown on a 718,000 mu area including a new 382,000 mu area this year. Sichuan Province's rural villages

adopted a method whereby specialized households and key households do most of the growing of seedlings. They produced more than 4.6 billion pine, juniper and sandalwood seedlings, 70 percent of which are large, sturdy seedlings. This will provide sufficient seedlings for afforestation throughout the province during the spring of 1983.

Second, afforestation quotas for the country as a whole were overfulfilled. During 1982, 67.43 million mu throughout the country was afforested in a 123.7 percent fulfillment of plan, 5.78 million mu more than in 1981. Both quantity and quality of afforestation was better than in previous years. This included state farm enterprise reforestation of 3,195,000 mu in 106.5 percent fulfillment of plan. During the spring, Guizhou Province completed afforestation of 1,239,000 mu in 123 percent fulfillment of plan. In Yi County, Hebei Province, collective and individual afforestation was done simultaneously, and timber, economic and firewood forests were all planted at the same time, 50,000 mu more than plan being afforested for the year. In order to improve the survival rate and the conservation rate, as well as hasten forest tree growth, in addition to large-scale planting of trees in afforestation, emphasis was also placed on the tending of young saplings and of mature trees. More than 100 million mu of young and mature forests throughout the country were cared for.

Third, protection of forests from fires, and prevention and control of diseases and insect pests saw new advances. The damaged forest area was 25.5 percent less in 1982 than in 1981. In the Daxing'an Range forest area, effectiveness of fire prevention teams and helicopter firefighting increased markedly. Ninety-two fires occurred during the year, 77 percent of which were extinguished in the same day. No large forest fires occurred in Jilin Province, and in Guangdong Province the damaged forest area was 80 percent less than in 1981. In the realm of prevention and control of forest diseases and insect pests, the main emphasis was on prevention and control of pine moths and long-horned poplar beetles, a combination of biological prevention and control and chemical pesticides being used plus intensification of forecasting and reporting and forest tree quarantines, which achieved rather good results in prevention and control. According to statistics, the national forest area of forest disease and insect pest prevention and control is 30.44 million mu.

2. Production of Timber and Other Forest Products. Production units responsible for production of timber and other forest products actively tapped production potential to produce 50.41 million cubic meters of timber for the year in 101.7 percent fulfillment of annual plan. They provided the state with more than 28.57 million mu of timber in 98.7 percent fulfillment of plan. (See Table 1 for details)

Quotas for all eight forest-produced industrial products included in the state plan were fulfilled ahead of schedule, and quality improved. These included four products such as "Jinsong Brand" pressed wood shavings board from the Beijing Lumber Plant, "Fengye Brand" plastic-faced paper board produced by the Shanghai Yangzimu Lumber Plant, which won national silver awards. (For details on forest-produced industrial products, please see Table 2.)

Table 1. Status of National Timber Production in 1982

Unit: 10,000 cubic meters

	Total timber output			Including: amount provided the state		
	Plan	Actual	Percent of plan completion	Plan	Actual	Percent of plan completion
National	4,955	5,041.25	101.7	2,895	2,857.06	98.7
Including:						
Hebei	6	14.47	241.2	--	--	--
Shanxi	10	12.21	122.1	--	--	--
Nei Monggol	365	448.71	122.9	340	345.77	101.7
Liaoning	50	42.20	84.4	--	--	--
Jilin	555	614.25	110.7	420	436.50	103.9
Heilongjiang	1,346	1,607.91	119.5	1,020	1,338.50	131.2
Including: Daxing'an Range	326	328.40	100.7	316	316.90	100.3
Zhejiang	65	62.79	96.6	--	--	--
Anhui	40	34.77	86.9	--	--	--
Fujian	305	345.64	113.3	200	180.11	90.0
Jiangxi	280	270.93	96.8	112	89.47	79.9
Henan	14	9.53	68.0	--	--	--
Hubei	60	61.15	101.9	--	--	--
Hunan	260	212.81	81.9	90	83.70	93.1
Guangdong	280	319.06	114.0	64.5	63.20	98.0
Guangxi	150	179.85	119.9	59	59.50	100.8
Sichuan	385	345.86	89.8	146	141.02	96.6
Guizhou	79	87.40	110.6	31	31.57	101.8
Yunnan	215	193.40	90.0	84.6	75.90	89.7
Xizang	24	16.05	66.9	--	--	--
Shaanxi	50	45.28	90.6	--	--	--
Gansu	40	50.06	125.2	--	--	--
Xinjiang	38	53.36	140.4	11.9	11.74	98.7

Table 2. Status of Forest-produced Industrial Products in 1982

Item	Unit	Plan figure	Amount fulfilled	Percent of plan fulfilled
Sawed lumber	10,000 cubic meters	492	583.44	118.59
Plywood	" " "	29.3	31.93	108.98
Fiberboard (made of wood)	" " "	50.07	56.86	113.56
Wood shavings board	" " "	5.44	5.45	100.18
Rosin	10,000 tons	28.6	37.12	129.79
Turpentine	tons	47,030	58,155	123.66
Tannin extract	"	30,200	33,477	110.85
Shellac	"	858	1,356	158.04

II. Heartening Achievements From National Obligatory Tree Planting Movement

The first year of China's national voluntary tree planting movement, with great victories won in the first battle and marked achievements made, was 1982. Statistics from 12 key forestry counties in south China show the voluntary planting of 23.33 million trees in rural villages and the continuous tract afforestation of 560,000 mu. In the capital of Beijing, each person planted an average of three trees, setting an example for the national voluntary planting of trees. The Chinese People's Liberation Army fulfilled the obligatory planting of 39.23 million trees for the year, afforesting tracts covering 152,000 mu, growing 20,000 mu of seedlings, and helping locales plant more than 56 million trees. Under impetus of the national voluntary tree planting movement, a seldom seen fine situation occurred in national afforestation, with the organization of three climaxes in afforestation during spring, autumn and the rainy season.

III. "Three Fixes" of Fixed Mountain Rights and Forest Rights, Fixed Designation of Privately Retained Mountains and Fixed Forestry Production Responsibility Systems Show Preliminary Results

The year 1982 was one of all-round development of "three fixes" in forestry, which made major advances. CPC committees and people's governments at all levels continued to place the "three fixes" on their agendas of important things to do in forestry. Everywhere "three fixes" leadership teams or offices were set up, while more than 700,000 people were sent out in work teams to go down to the grassroots to help and direct work. Statistics from 27 provinces, municipalities and regions show "three fixes" work as having been completed as of the end of the year in 1,069 counties, or 46.4 percent of all counties in the country. Production brigades completing "three fixes" work numbered 3.74 million, or 66 percent of all production teams. As part of "three fixes" work, all jurisdictions assigned 170 million mu of privately retained mountains to 45.01 million peasants for an average of 3.8 mu per household. They arbitrated a total of more than 1.07 million disputes involving forest rights. After fixing forest rights, numerous places established and perfected various forms of forestry production responsibility systems. In some places, forestry specialized households and key households, as well as new economic partnerships sprung up for afforestation, the growing of seedlings, for taking care of fruit trees, for raising livestock and looking after forests in mountain areas, and for household running of forest farms.

IV. Unhealthy Tendencies Toward Reckless Cutting and Denudation of Forests Initially Halted

In October 1982, the CPC Central Committee and the State Council issued "Urgent Instructions on Halting the Reckless Cutting and Denudation of Forests." Statistics from 22 provinces and regions show a total of 17,000 work teams as having been sent out at all levels to go into counties and communes to check on and handle 85,000 cases involving destruction of forests. They closed more than 2,000 free markets in timber, buttressed the work of forest administration and management and timber inspection stations, and began to effect control in places where serious destruction of forests occurred. Liujiang Production

Brigade in Pingjiang County, Hunan Province established mountain forest voluntary prohibition meetings and formulated mountain and village regulations to put a stop to the unhealthy tendency to destroy forests. Effectiveness of the voluntary prohibition meetings in protecting forests stirred the enthusiasm of commune members to take care of and afforest mountains. In 1982, the entire production brigade tended more than 500 mu of juniper trees and more than 1,200 mu of moso bamboo, revived 740 of tea oil, and newly planted 13,000 timber forest trees and more than 5,700 fruit trees. As a result of the good care given the moso bamboo, 500,000 stalks of mature bamboo grew from spring shoots in 1982, 200,000 more than in 1981, making 1982 the year of greatest maturation since the founding of the nation.

V. Success Achieved in All-round Reorganization of the First Group of Forestry Enterprises

During 1982, reorganization began in 45 of the country's 181 large and medium size forestry enterprises. These enterprises readjusted leadership teams on the basis of four modernizations requirements, perfected enterprise leadership organizations and strengthened basic work for marked improvement in economic effectiveness.

Acting in the spirit of the 12th CPC Congress, ideas on ushering in a new situation in China's forestry were discussed and studied during 1982. Struggle objectives in the building of China's forestry until the year 2000 are to be: active arousal of national, collective, and individual forces and use of artificial afforestation, closing off mountains to grow forests, and aerial sowing of seeds for afforestation to expand the forested area by 1 billion mu to raise the country's forest cover rate to 20 percent; protection and good management of existing forests so that forest tree growth and amount of timber output will rise tremendously; and every effort to quadruple the 1980 output value of forestry.

Once the foregoing objectives have been achieved, the country's consumption of forests will not exceed growth; the natural environment will be improved; the conflict between supply and demand for timber will be ameliorated; timber-short provinces and regions will achieve self-sufficiency or partial self-sufficiency in timber; peasant fuel problems will be gradually solved; and overall utilization standards of forest resources and forestry scientific and technical standards will approach or meet present standards of the world's advanced forestry countries.

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CHINA'S METEOROLOGICAL WORK

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 13-IV 14

[Article by Investigation and Study Department, Chinese Meteorological Bureau Office]

[Text] In January 1982, the State Meteorology Bureau convened a national conference of meteorology bureau directors in Beijing. The conference set a new program of meteorological work, assigned work tasks for 1982, and called for "accuracy, speed and economy" in meteorological work. During the past year, meteorological units at all levels conscientiously instituted a program of "active promotion of the modernization of meteorological science and technology, upgraded capabilities for monitoring, forecasting and reporting disastrous weather, placed emphasis on providing accurate and timely service in building the economy and national defense as well as in serving agriculture, and steadily improved economic benefits derived from services provided. In accordance with the demand for "accuracy, speed and economy," they implemented this conference's assigned tasks in an all-round way, and new advances were made in all activities.

Initial Results Seen From Restructuring the Management System

Following approval by the State Council, in 1980 meteorological units initiated a preliminary restructuring of the management system. They emphasized the dual leadership of meteorological departments and local governments in a management system in which meteorological departments were predominant. Simultaneous with consolidation of results of this preliminary restructuring, the State Meteorology Bureau sent out investigation teams to 21 provinces and autonomous regions to conduct investigation and study. They gained an initial understanding of the status of incumbent leadership teams in each of the provinces (and autonomous regions), worked up plans for the second restructuring of the management system, and set the stage for carrying out the second restructuring in 1983. Restructuring solved problems in the management of personnel, financial and material resources, and the disjointedness of professional work. It stabilized the professional corps, and specialization of leadership groups were upgraded to a certain extent. Direction from upper echelons of meteorological units became more wieldy and a service mentality was further clarified, thereby giving impetus to the improvement of the quality of professional service.

Further Strengthening of Basic Professional Work

In 1982, meteorological units strengthened professional management and further established and perfected a system of rules and regulations. They initiated quality inspections and comparison and appraisal competitions, which spurred improvement of the quality of all professional activities.

In the area of weather forecasting and reporting, a national work conference on disastrous weather forecasting was convened. This conference proposed multiple applications of numerous methods of weather forecasting and emphasis on development of numerical weather forecasting to make weather forecasting work objective and quantified as rapidly as possible. Provincial and prefectural meteorological stations will gradually concentrate mostly on the collection, use and facsimile transmission of maps and charts to increase forecasting data and to reduce duplicatory work. Action in this spirit by meteorological units at all levels brought new advances in professional forecasting. Jilin and Jiangsu Province's meteorological units achieved rather good results from promoting use of models as a method of issuing statistical forecasts. Most provincial level meteorological observatories strengthened technical personal responsibility systems, transferred professional mainstay cadres, set up disastrous-weather forecasting and warning teams, or instituted an overall leadership team system in strengthening technical forces on the front lines who are engaged in forecasting work. Forecasting methods and tools also improved; forecasting data gradually increased; and techniques were newly upgraded. Formerly, for example, meteorological stations could generally only make qualitative forecasts about torrential rains. During the past year or 2, the number of meteorology stations able to prepare quantitative forecasts of torrential rains became increasingly large, and the accuracy rate also rose.

With help from the state electrical communications sector, and as a result of close planning and joint efforts from top to bottom, a new international meteorological telegraphic code was organized for meteorological forecasting work. This marks a major professional change in the organization of world meteorology that was internationally acclaimed. Simultaneous with the further launching of competitions such as "no mistakes by a hundred teams," professional management and technical direction of meteorological forecasting was strengthened, and quality of forecasting newly risen.

As far as meteorological communications and data processing are concerned, meteorological facsimile communications developed rapidly. As of the end of 1982, more than 1,100 county meteorological stations were equipped with facsimile transmission and receiving equipment. Increased facsimile broadcasting components at the Beijing Meteorology Center improved broadcast quality. Domestic landline electric circuits between Beijing and Shanghai changed to voice circuits. International landline electric circuits also developed fairly rapidly. The electric circuit between Beijing and Offenbach [in the GDR] reached advanced standards for global meteorological communications systems. Landline circuits between Beijing and Moscow and Khabarovsk were converted to satellite circuits. Progress was rapid in converting data into information, with the virtual completion of the phased reorganization of ground surface climatic data.

New Progress in Implementing Policies Toward Intellectuals and in Educational and Scientific Research Work

During 1982, meteorological departments devoted serious attention to recruiting new party members from among scientific and technical personnel, and to conferring high- and middle-level technical titles on more than 2,000 scientific and technical personnel. According to incomplete statistics from meteorological departments in 26 provinces (municiaplities and autonomous regions), a total of more than 700 professional and technical personnel took over leadership duties at the section level and above. In addition, working and living conditions for scientific and technical personnel were improved to a certain extent for a further arousal of the enthusiasm of the broad masses of intellectuals.

Meteorological departments everywhere generally strengthened on-the-job educational work. They widened avenues in running schools and enhanced the building of educational bases so that the education of staff members and workers began to become normalized, systematized and regularized. During 1982, national meteorology departments operated a total of 321 short training classes for the training of 9,116 people. Meteorology bureaus in 22 provinces (municipalities and autonomous regions) ran 32 special on-the-job courses for the training of 1,460 people. The meteorological academies at Nanjing and Chengdu continued rotational training of leading cadres.

Results were also scored in meteorological research. Research on key problems, such as meteorological experiments on the Qinghai-Xizang Plateau, on torrential rains in north China, and on long-range forecasting methods and theories about low temperature cold damage in northeast China, were preliminarily completed. Results of measurements, analysis and research on the intensity of heat resources on the Qinghai-Xizang Plateau were given good ratings by international meteorological circles. Energy synoptic meteorology forecasting methods were applied with rather good results to particularly heavy torrential rain forecasting in the middle reaches of the Huang He and for the Huai He.

Marked Improvement in Economic Benefits From Meteorology Services

Since the 3d Plenary Session of the 11th Party Central Committee, the idea that meteorological departments should emphasize service for economic benefits became increasingly clear-cut. Economic benefits from meteorological services were markedly improved and were manifested largely in the following several ways:

1. Fairly Accurate Forecasting of Seriously Disastrous Weather for a Contribution in Reducing or Avoiding Loss of People's Lives and Property. During 1982, a goodly number of instances of somewhat calamitous weater occurred. Between February and April, parts of Xinjiang, Qinghai and Gansu experienced uncommonly high wind and snow disasters. During early May, Gansu suffered the latest cold wave on record, while northern Guangdong Province suffered one of the worst floods in its history. Between June and August, torrential rains fell in Jiangxi, Hunan, Hubei, Fujian, Anhui, Henan and Shanxi, and in northern Jiangsu and eastern Sichuan, while China's three northeastern provinces sustained a protracted drought. The Central Meteorological Station and most local

meteorological stations forecast in a fairly accurate manner the disastrous weather in the foregoing areas, thereby winning time in withstanding and combating the disasters and reducing or avoiding losses of people's lives and property.

On 12 May 1982, an exceptionally heavy torrential rain fell in Qingyuan County, Guangdong Province. In advance of the torrential rains, the Qingyuan Meteorological Station issued a forecast to the county government. The county government took urgent action to prevent floods, and sent out propaganda vehicles to mobilize the broad masses of people to head for safe places at once. As a result, not a single person perished. Meteorological departments in Shaanxi Province conscientiously summarized the lessons of experience from 1981 torrential rain forecasts and applied the results of scientific research to improve accuracy of torrential rains forecasts. As a result, losses from the worst floods in the past 20 years in Shangluo Prefecture were reduced or avoided. During the crucial time of guarding against high waters, the Jiangxi Provincial Meteorological Station provided prompt reporting on the rains and accurate forecasts, so that leaders concerned in the provincial government were able to prepare correct policies for no flood diversion of the Fu He. Torrential rain forecasts from provincial meteorological stations in Henan and Anhui were also quite accurate, making contributions to safe passage through the high-water seasons on the Huang He and Huai He. The Qinghai Provincial Meteorological Station gave advance warning of heavy snows in April enabling departments concerned to take early preventive measures against freezing and preparations to protect livestock, which greatly reduced livestock losses, earning the praise of the provincial CPC committee. Meteorological stations in southeastern coastal prefectures used rain-monitoring radar and satellite cloud maps for marked accomplishments in making forecasts to guard against typhoons and resist calamities. For example, the Zhejiang Provincial Meteorology Observatory, the Wenzhou Municipal Meteorological Observatory and the Pingyang and Butuo Meteorological Stations promptly issued fairly accurate forecasts, which, in combination with party and government departments at all levels providing organization and leadership of the struggle to counter typhoons and resist calamities, reduced losses of people's lives and property and gained marked economic benefits. Wenzhou Prefecture, which is seriously affected by typhoons, lost no opportunities to use rainfall brought by a typhoon, turning a disadvantage into an advantage. As a result, reservoirs everywhere throughout the prefecture were filled with water. Six ferries belonging to the Wenzhou Municipal Harbor Bureau returned to port at once to avoid the winds, remaining safe and undamaged. The Wenzhou Municipal Sundries Co moved goods out of easily inundated warehouses, reducing losses by 4 million yuan.

2. New Trails Blazed in Serving Agriculture. Though disastrous weather occurred fairly frequently in 1982, nevertheless bumper crops were produced. Party and government departments everywhere, as well as the broad masses of people, believe that these bumper harvests are a direct result of the accurate and timely service that meteorological units have provided. As a result of the new situations resulting from instituting agricultural production responsibility systems, numerous grassroots meteorological stations made penetrating investigations and study, providing services pertinent to grain production and

to economic diversification. They sent weather forecasts to specialized households, to key households and to the broad masses of peasants for remarkable achievements in agricultural production by making the most of strengths while avoiding weaknesses. One example was the early accurate forecasts of Guangxi meteorological departments on the rare "return of cold in spring" at the end of March. As a result 150 million jin fewer seedlings rotted throughout the prefecture than during a similar situation in 1976. The Guannan County Meteorology Station in Jiangsu gave 5 days advance warning of the 9 July abrupt change from drought to much rainfall. The county government changed its former decision to mobilize people throughout the whole country to fight drought, thereby saving large amounts of manpower and material resources.

The job of surveying agricultural climatic resources was substantially completed, and new advances were made in the climatic zoning of agriculture. In 1982, more than 500 counties in the country completed the climatic zoning of agriculture. Grassroots meteorological observatories and stations used agricultural climate survey and zoning results to provide scientific data for the readjustment of crop varieties and crop patterns, to reform the farming system, and to improve agricultural techniques, securing remarkable economic effectiveness. Liangshan Prefecture in Sichuan Province, for example, applied results of climatic zoning to the active growing of apples for yields of 800 jin per tree with a quality better even than that of the famed American "snake fruit" [sic]. As a result of a survey of agricultural climatic resources, Hengshan County in Hunan Province learned that the reason why double-cropped late rice did not form panicles in more than half the years was largely the result of insufficient heat. After readjusting varieties and improving field care, bumper crops were harvested from the late crop everywhere.

3. New Advances in Specialized Meteorological Services. Many meteorological observatories and stations made specialized meteorological services a major component of their work during 1982. As a result of strengthening leadership, thorough investigation and study, active signing of service contracts, and steady improvement in services, unprecedented new meteorological services were provided. One example was prompt forecasting provided to shipping on the Songhua Jiang, the Heilong Jiang, and the Ussuri River in Heilongjiang Province, which enabled shipping departments to overfulfill quotas by 10 percent despite the lowest water levels in the past 37 years, earning 5 million yuan of greater profits. The Petroleum Pipeline Bureau signed a meteorology service contract with the Langfang Prefecture Meteorology Station in Hebei that provided for organization and planning against flood waters, freezes and maintenance of petroleum pipelines on the basis of weather forecasts to guarantee safe movement of petroleum through pipelines. The Dalian Meteorological Observatory in Liaoning accurately forecast the torrential rains of the end of July enabling the salt fields to avoid damage to 4 million tons of salt water valued at more than 13 million yuan. During November when large quantities of cabbage go to market, the Beijing Municipal Meteorological Observatory made a timely weather forecast that avoided weater-related losses of several hundred million jin of cabbage throughout the city, earning good marks from party and government leaders and from the broad masses of people.

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CHINA'S LIGHT INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 15-IV 18

[Article by the Research Office of the Ministry of Light Industry]

[Text] In 1982, China's light industry continued to develop steadily.

The Major Achievements Scored

The gross value of output fulfilled for the entire year was 112.14 billion yuan, 8 percent over 1981 and 7 percent over the plan of growth required by the state. The regions that attained a growth of over 7 percent in light industry were the following 18 provinces, municipalities and autonomous regions: Qinghai (16.9 percent), Yunnan (15.9 percent), Anhui (14.4 percent), Hubei (13.9 percent), Xinjiang (13.4 percent), Shanxi (11.4 percent), Hunan (9.9 percent), Jiangsu (9.3 percent), Nei Monggol (9.2 percent), Guangdong (8.8 percent), Gansu (8.3 percent), Heilongjiang (8.2 percent), Guizhou (7.9 percent), Hebei (7.6 percent), Zhejiang (7.5 percent), Jiangxi (7.2 percent), Sichuan (7.1 percent) and Tianjin (7.04 percent). The following four provinces and municipalities obtained a net increase of over 500 million yuan in output value: Guangdong (760 million yuan), Jiangsu (660 million yuan), Hubei (600 million yuan) and Shanghai (530 million yuan).

Of the 20 major light industrial products that were listed in the state plans, 18 overfulfilled their plans.

Of the 105 products that were assessed by the Ministry of Light Industry as outstanding quality products in the country, over 90 percent maintained a steady rise in quality. Three products also won the gold medal for quality from the state for the entire year, while 43 products won the silver medal from the state, and 205 products won the title of product of outstanding quality from the Ministry of Light Industry. There were over 5,000 new products which were successfully trial-manufactured from various localities. There were over 60,000 new varieties, new designs and colors and new packagings. Half of them entered production and were put on the market.

The supply of light industrial products on the market was abundant in quantity, consistent in quality and diverse in variety. An excellent situation rarely seen since the nation's founding appeared.

The profits and taxes realized for the entire year amounted to 23.91 billion yuan, 3.57 percent over 1981. Taking out such factors as raw materials and the readjustment in prices of the products, there was a growth of roughly 5 percent over the preceding year.

The amount of investment in capital construction fulfilled for the entire year was 2,499,000,000 yuan, 11.8 percent over 1981. Thirty-four completed large-scale and medium-sized projects entered production. We also fulfilled our technological transformation projects in a relatively proper manner and scored relatively good economic results.

We realized 177 scientific and technological results for the entire year. The 12 light industrial institutions of higher learning enrolled 3,111 students, an increase of 9.6 percent over 1981. We further developed education for staff members and workers. There were 17,000 people studying at the universities for staff members and workers and the video universities. There were over 5,000 staff members enrolled in technical secondary schools. There were 512,000 staff members and workers participating in cultural studies, and 207,000 people participating in learning in various technical training classes. We trained by rotation 59,000 cadres at and above the factory level.

Several Characteristics in the Development of Light Industry in 1982

I. We Made New Progress in Organizing Production in Light of Society's Needs.

In 1982, light industrial production was organized in light of needs. After many years, this was one year in which we did a relatively good job and was one year in which the speed of growth was relatively solid and in which there was less inflation.

The departments in charge and enterprises in various localities all took the initiative to readjust their plans concerning the products that manifested supply over demand on the market, strictly controlled the industrial reserves, and actively organized production increase for those products which were in short supply. For instance, in the household enamelware trade, because many provincial and regional commercial units did not want enamel wash basins and cups, the sales volume on the market was limited. Hence, limited production was implemented. On the other hand, because miscellaneous enamel items and new enamel products were more popular, effort was put on increasing production. The state plan for this trade for the entire year was 147,000 tons. In light of the needs of the market, only 132,000 tons were produced instead of blindly pursuing output value and output.

In order to meet the needs of the changes on the market, the various localities strengthened the work of developing new products and worked hard to increase new designs, colors and varieties. Many provinces and municipalities were able to produce one generation of products, reserve a second generation of products, trial-manufacture a third generation of products and plan for a fourth generation of products, thereby guaranteeing the entry of a continuous source of new products on the market. The Jiangsu Provincial Light Industrial Office implemented the "five groups," which meant developing a group of scientific research

products, creating a group of name brands and products of outstanding quality, organizing the entry into production of a group of new products, copying a group of imported samples, and reforming a group of old products. In 1982, over 7,000 new products, new designs and colors and new varieties entered into production throughout the province. The output value of name brand products, products of outstanding quality and new products constituted over 10 percent of the gross value of light industrial output throughout the province.

II. We Actively Opened Up Channels of Circulation and Further Strengthened the the Work of the Sales of Products.

In light of the new situation, the light industrial departments and enterprises in various localities changed from reliance on commerce in sales to reliance on commerce in procurement. On the one hand, they did a good job of linking up industry with commerce. On the other hand, they actively launched sales on their own, worked hard to open up channels of circulation and promoted development in production.

The Shanghai Municipal Light Industrial Bureau strengthened leadership over sales work, imposed unified control over production and circulation from the higher to the lower level, and adopted flexible and diverse forms to develop markets in a vigorous manner. Under the prerequisite of coordinating with the Commercial Class A Station, the Household Chemical Industrial Co under the bureau made use of diverse channels of circulation to expand wholesale, and directly had 541 customers of all categories. The amount of sales on its own for the entire year totaled 15 million yuan, 18.1 percent over the preceding year.

After the commercial units failed to carry out procurement of table wine, for a while, there was a large volume of stockpiling in the factories in Hubei Province, and production became a problem. The industrial departments immediately set up points to carry out sales on their own on a popular scale in various counties within the province. This changed the stockpiling of products into popular sales. The planned output for the entire year was 97,000 tons. Due to the opening up of channels of sales, 107,000 tons were fulfilled, surpassing the target by 10.3 percent.

In the course of opening up channels of circulation, the various localities paid attention to developing rural markets in an effort to satisfy the needs of the 800 million peasants. For instance, they actively increased the production of plastic film for farm use, loading bicycles as well as consumer items for daily use that were marketable in the rural areas. In 1982, 194,000 tons of plastic film for farm use were sold, 18.8 percent over the preceding year, while 7,831,000 bicycles were sold, showing an increase of 56.2 percent. In Hunan Province, sample order exhibits of light industrial products were organized for the rural areas on two occasions throughout the year. Some products which enjoyed average popularity or were unmarketable in the cities were popular in the rural areas. Consequently, the absence of stockpiling of products was basically achieved.

In 1982, new progress was made in the work of sales of light industrial products in various localities. The proportion of sales on one's own increased. The proportion of the output value of the First Ministry of Light Industry in the gross value of industrial output went from 15 percent in 1981 to 24 percent, while that of the Second Ministry of Light Industry went from 45 percent in 1981 to more than 50 percent.

III. We Put More Emphasis in the Work of Technological Transformation Than in the Past.

In 1982, in addition to formulating medium-length and long-term programs for technological transformation of trades and enterprises, the light industrial departments and enterprises at various levels also emphasized the work of technological transformation at present, and scored good results in such aspects as raising product quality, changing the product structure, developing new products, saving energy and raw materials and developing new sources of raw materials.

The Shanghai Municipal Light Industrial Bureau took the upgrading and updating of products as the key content in technological transformation. It employed four means of developing new products. The first one was to do so with the enterprise as the main body. Over 100 enterprises throughout the bureau had their own new product laboratories and workshops and groups. The second one was to organize a "chain" development with the trade as the main body. For instance, the several factories in the enamel trade separately made technological breakthroughs in the prescription for enamel powder [3809 4720], the technique of enamel painting, and the silk-net printing applique, and produced new products in enameling. The third one was to carry out development in a cooperative manner between the factory and the scientific research unit or the institution of higher learning. The whole set of "Lu Mei" cosmetics was the product of such cooperation. The fourth one was transregional joint development of new products. The small 17.2 mm-diameter woman's watch was brought about through the cooperation of the Shanghai watch making trade with its counterparts in Chongqing, Qingdao and other places. Every year, the Shanghai Municipal Light Industrial Bureau had several dozen new products and almost 2,000 new varieties, designs and colors that would replace the old products. The cycle of product replacement of the entire bureau was 10 years. After the pace of technological transformation is accelerated, this cycle will be shortened.

Shandong's Liubo Ceramic Industrial Co carried out a relatively systematic transformation of its kilns and machinery equipment. The combine machine operation which replaced manual operation in shaping, drying, and finishing approached the advanced level abroad. The round kiln, whose consumption of energy was high, was replaced by the tunnel kiln. The present kiln uses energy efficiently and provides a sample for the transformation of kilns for the whole trade. From sawing wood to the packaging of matches as the finished product, the Jinan Match Factory carried out all-round technological transformation by not only absorbing the advanced technology abroad but also summing up the newest technology and equipment of its own trade at home. Great changes took place in the outlook of production technology throughout the

factory, and the economic results were raised by a wide margin. After the transformation, in 1 year, it could save timber by 8-10 percent, electricity by 30 percent and coal by 7 percent, employ 52 fewer workers and increase profits by 690,000 yuan.

IV. We Obtained Actual Results in the Work of All-round Rectification of Enterprises and Comprehensive Management by Stages and in Groups.

In 1982, the light industrial departments at various levels dispatched investigation groups to stay at selected units to assist 391 large-scale and medium-sized key enterprises in carrying out rectification, and enabled the leading groups of some enterprises to make big strides according to the demand of the four modernizations. An example would be the 81 enterprises in the 4 cities of Harbin, Shenyang, Dalian and Wuxi in carrying out rectification (see table).

	Leading persons	Average age	High school education and above		Those with technical proficiency	
			Number of people	Percent	Number of people	percent
Before rectification	588	50.62	135	22.9	72	12.2
After rectification	438	47.66	185	42.2	107	24.4

In the rectification, Jiangxi's Nanchang No 3 Glass Factory boldly employed cadres who were in their prime of life and who embraced professional knowledge. This enabled the enterprise to instantly cast off its label of suffering losses for 10 consecutive years. Its production surpassed the highest level in history and its energy consumption and quality targets both reached the advanced level of the same trade at home.

These enterprises all carried out rectification of labor organization and labor discipline, learned from the experience of the Capital Iron and Steel Co, perfected their economic system of responsibility, perfected the financial and accounting system, rigorously enforced financial and economic discipline and enabled the enterprises to greatly raise their management level and economic results over those prior to the rectification. For instance, in the beginning of the year, the Jiamu Paper Mill in Heilongjiang Province faced the difficulty of "a reduction in production tasks and a drop in profits." With the assistance of the investigation group dispatched by the Provincial Light Industrial Bureau to stay at selected units, it carried out all-round rectification and comprehensive management. As a result, it attained the highest level in the history of the factory in the fulfillment of such targets as the gross output value, the output for the major products, consumption, taxes and profits for the entire year.

As for the large number of small-scale enterprises in all areas which were not key enterprises, although the departments in charge did not dispatch investigation groups to stay at selected units to assist in rectification, those enterprises which had stronger leading groups also carried out self-rectification and obtained actual results to varying degrees.

V. We Obtained Some Experiences in the Pilot Projects of the Reform in the Light Industrial Trades.

In 1982, the light industrial system continued to launch pilot reform projects primarily in the following categories:

The first category was the pilot project in reforming the industrial structure in accordance with authorized management by trades. For instance, under the unified leadership of the municipal party committee and municipal people's government, the Chongqing Municipal First Light Industrial Bureau acted in accordance with the principle of authorized management according to trades and products, shattered the boundaries of the system of ownership by departments or regions, recouped to the higher level the first light industrial enterprises which were under the jurisdiction of a locality, put the first light industrial enterprises of other departments under the First Light Industrial Bureau, and organized 12 professional companies (or general companies) in the nature of enterprises according to trades. In readjusting the subordinate relationship of the enterprises, they did not confuse the boundaries between the two different systems of ownership by all people and collective ownership. They implemented bookkeeping by separate units, carried out separate accounting, and did not practice egalitarianism and indiscriminate transfer of resources. Since the implementation of authorized management, they brought into play in a better manner the superiority of the socialist planned economy. In making overall plans and rational arrangements for their own trades, the companies avoided such confusion as each doing things their own way and blind development. They strengthened cooperation among specializations, developed alliances that go beyond trades and regions, and helped bring into play the role of this key city of the upper reaches of the Chang Jiang as an economic center. Prior to the reform, there were 14 factories throughout the city which produced watches or parts, and they were managed by different departments of the city and localities. The annual production capacity was only 800,000 watches. After authorized management, the extent of cooperation according to specializations was raised. Through implementing technological and economic alliance with Yunnan, Guizhou as well as other localities in the local province, the production capacity swiftly rose to over 1 million watches.

The second category was the pilot project in implementing the substitution of tax payment for profit delivery by the state-run large-scale enterprises. For instance, since carrying out the pilot project in July 1980, the Guangzhou Municipal Bicycle Industrial Co vitalized the economic work in the enterprise and developed production year after year. Compared to the preceding 2 years, in the 2 years in which the pilot project was run, the output value increased 50 percent, the output increased 49 percent, the quality went from 89.17 points to 95 points, second-category products became first-category products, the designs, colors and varieties went from 11 kinds to 26 kinds, profits

increased 217.6 percent, labor productivity increased 39 percent, state taxes increased 52 percent, and profits delivered to the state increased 103.2 percent. Furthermore, in the preceding 2 years, the state appropriated funds for the company in tapping potentials and carrying out transformation. In the latter 2 years, while the company did not use the investment by the state, the actual profits it yielded to the state were 5.9 times that prior to the pilot project, and the enterprise funds also increased correspondingly. As a result, the pace of technological transformation of the enterprise was accelerated, the education cause for staff members and workers was swiftly launched, marked progress was made in enterprise business management and the livelihood and welfare of staff members and workers were also improved.

The third category was the pilot project in implementing the system of contracting responsibility for economic results by state-run small-scale factories. For instance, as of May 1981, the Sihui County Local State-run Porcelain Factory in Guangdong Province was contracted collectively by 10 staff members and workers. From the time of its completion and entry into production in 1977 to the end of 1980, due to the mentality of the "same big pot" and the "iron bowl," the leadership in this factory lacked a sense of responsibility and the staff members and workers lacked enthusiasm. Production suffered losses year after year until the county decided to close down the factory and stop production. After trial-implementing the system of contracting responsibility by the collective, the business, good or bad, of the enterprise was directly linked with the interests of the staff members and workers. This realized the principle of more work for more gain and mobilized the enthusiasm of all to become their own masters. In the 20 months till the end of 1982, the factory made profits every month, and yielded to the state 59,000 yuan in industrial and commercial taxes, which more than doubled that of the preceding 4 years. Product quality improved markedly, with the rate of quality products going from 50 percent in the past to over 80 percent. The cost of per-unit product was lowered by 55.2 percent, and labor productivity was raised by 4.7 times. The income of the staff members and workers went from the monthly average of 50 yuan in the past to 152 yuan in 1981 and again to 172.6 yuan in 1982.

New Problems Under the New Situation

In 1982, an excellent situation was seen in the development of light industry. However, under the new situation, we also encountered new problems, the more prominent ones being the following:

First, new changes occurred in the situation of market supply after the increase in light industrial products. Since the implementation of the principle of readjusting the national economy, light industrial production developed more rapidly. From 1979 to 1982, there was an average annual progressive increase at 9 percent. In the 4 years, the durable consumer products doubled and redoubled. For intance, bicycles increased 1.8 times, sewing machines 1.6 times, wristwatches 1.4 times, washing machines for household use from 366 to 2.53 million sets, refrigerators for household use 5 times, and electric fans 5.6 times. Many general industrial products for daily use increased over 60 percent. For instance, leather shoes increased by 85.6 percent, plastic

shoes 69 percent, canvas shoes 87 percent, synthetic detergent 75.6 percent, glassware for daily use 81.6 percent, mirrors for civilian use 93 percent, cloth umbrellas with steel frames 149 percent. Foodstuffs, sugar, tobacco and wine all increased by a relatively wide margin. Edible sugar increased by 49.3 percent, cigarettes 59.5 percent, beer 190.4 percent, canned products 60.8 percent, monosodium glutamate 136.5 percent, and dairy products 114.2 percent. We also recovered and developed small commodities of miscellaneous varieties as well as necessities for minority nationalities. Thus, the supply of light industrial products on the market was relaxed after a prolonged period of shortage. In the past, bicycles, sewing machines and wristwatches were procured with vouchers. Now, with the exception of name brands, bicycles and sewing machines are in open supply. The masses of people put forth higher demands for light industrial products in terms of quality, variety, design and color. One reason for the occurrence of unmarketability and stockpiling in some localities is the failure of some products to adapt to this new change.

Second, new changes emerged in the forms of production and sales, with the reduction of procurement by commercial units and the heavier burden of sales by industrial units themselves. While the supply of light industrial products on the market was being relaxed, further changes took place in the commercial and business modes in our country. Whether in terms of variety or quantity, there was marked reduction in the planned procurement and procurement by order of light industrial products. The form of procurement by choice was primarily implemented. As a result, for a while, the channels of circulation of light industrial products were not very smooth, and such phenomena as stockpiling in one locality and shortage in another, and stockpiling in the city and shortage in the rural areas appeared. As regards the export of light industrial products, due to the influence of the depression on the international market, there was a drop in quantity in the foreign trade procurement of light industrial products. In light of the changes in commercial and foreign trade procurement, the task of sales of light industrial products by industrial units became heavier than before, thus bringing about certain new problems in production.

Third, with the rise again in heavy industrial production, a situation of shortage reappeared in the supply of energy and certain raw materials. From 1979 to 1981, under the guidance of the principle of readjusting the national economy, priority guarantee was given to the supply of energy and raw materials for light industry. In 1982, after 3 years of readjustment, the speed of development of heavy industry picked up too vigorously. As a result, the question of energy shortage in light industry resurfaced. For instance, the energy supply for the system under the Guangdong Provincial First Light Industrial Department was able to satisfy only 70 percent of the plan. Due to power cut and power restrictions, many light industrial trades in Jiangsu Province operated at less than 80 percent capacity throughout the year. Similar problems also appeared in the supply of certain raw materials used in light industry. For instance, there was relatively serious shortage in caustic soda, soda ash, steel products and timber. Due to a shortage in the supply of raw materials, the system under the Shaanxi Provincial First Light Industrial Bureau left idle its production capacity, affecting 110 million yuan in output value for the entire year.

Fourth, the problem of the failure of the system of business management to adapt to our country's situation became more prominent and awaited reform urgently. For instance, a large number of collective enterprises in light industry did not act in accordance with the characteristics and demand of the collective economy. Instead, they copied the set of management methods of the state-run enterprises, "ate out of the same big pot" and "carried the iron bowl in their hands." In distribution, they practiced egalitarianism, with virtually no difference in whether the business was good or bad or whether they made big or small contributions to the state. They also did not shoulder any responsibility for long-term losses. In business management, the enterprise lacked decision-making power and lacked the vitality for developing the economy. Such phenomena as blind development, overlapping construction and crowding out of the advanced by the backward were common occurrences.

Prospect for Development

The prospect for the development in light industry in 1983 is good and there are many favorable factors. The great bumper harvest in agriculture in 1982 provided light industry with abundant agricultural raw materials and a broad rural market. With the readjustment in wages of some staff members and workers by the state and the increase in the number of labor employment, the urban purchasing power will also increase still further. In particular, with the further launching of the pilot projects in the reform of the economic system of management, light industry will inevitably develop in a better and faster manner. Of course, we will also encounter certain difficulties in the course of development, such as the shortage in the supply of some raw materials, the relative shortage in energy and transportation, and the failure of the work of forecasting to catch up with the rapid changes in market demand. We must conscientiously resolve all these problems.

At present, the economic results in light industry are still not high. There are many ways to raise the results. There are a great many potentials to be tapped in various aspects. For instance, we can further carry out readjustment, actively and steadily carry out reform, accelerate the pace of enterprise rectification, emphasize technological transformation, do a good job of the sales of products, practically and realistically strengthen scientific, technological and educational causes, launch ideological and political work properly, and so on and so forth. If we mobilize the enthusiasm of the enterprises and staff members and workers in various respects, we will be able to raise the economic results in light industry to a new level!

Attached Table--Major Quota of 1982's Light Industry

Items	Unit	1982	Percent compared to 1981 (±)
Gross value of light industrial output	100 million yuan	1,121.4	8
Machine-manufactured paper and cardboard	10,000 tons	589	9.1
Sugar	10,000 tons	338.4	6.9
Unprocessed salt	10,000 tons	1,638	-10.6
Cigarettes	10,000 cases	1,885.17	10.6
Synthetic detergent	10,000 tons	56.9	19.0
Bicycles	10,000	2,420	38.0
Sewing machines	10,000	1,286	23.8
Wristwatches	10,000	3,313.1	14
Lightbulbs	100 million	10.7	10.3
Large-scale and special purpose weighing apparatuses	1 set	176,730	20.3
Plastic goods	10,000 tons	166.07	20
Synthetic fatty acid	1 ton	57,744	- 2.6
Dry battery	100 million	38.43	3.2
Ceramics for daily use	100 million pieces	38.63	7.5
Fine aluminum products for daily use	1 ton	60,096	5.8
Washing machines for household use	10,000 sets	253.24	97.7
Leather shoes	10,000 pairs	18,661	- 7.8
Beer	10,000 tons	117	28.6
Light industrial machines	10,000 tons	15.47	10

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CHINA'S TEXTILE INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 37-IV 39

[Article by the 2d Investigation and Research Office of the General Office of the Ministry of Textile Industry]

[Text] The year 1982 was one in which we faced a turn in the textile industry and also one in which we continued to study new problems and probe new approaches in the textile industry in an effort to enable textile production to develop steadily. From 1979 to 1981, the gross value of textile industrial output registered an annual progressive increase of 18 percent. The output of cotton yarn, cotton cloth, woolen fabric, woolen yarn and silk all registered the highest level in history. This year, in the supply of textile products, the domestic market began to change from a seller's market to a buyer's market in an increasingly marked manner. The major contradiction between the production and demand of textile products shifted from inadequate quantity to the failure to meet the needs of the domestic and foreign markets in terms of the quality, variety, design and color and style of the products. Under this new situation, the textile industrial departments and enterprises in various localities resolutely shifted the focus of work from emphasizing speed, emphasizing variety and quality, emphasizing economic results and emphasizing technological transformation. Along with this change, we also carried out the necessary reform in our business mode. In the midst of this turn in the textile industry, definite progress was made.

In 1982, the gross value of textile industrial output totaled 75.5 billion yuan, basically maintaining the value of the preceding year. We realized 14.8 billion yuan in taxes and profits. Taking out such objective factors as the lowering of prices and the restriction in production, and calculating from comparable specifications, profits still increased 3.8 percent over the preceding year. The situation of the fulfillment of the output of 10 major products was as follows:

Name of product	Unit	Output for 1982	Compared to 1981 percent
Chemical fiber	10,000 tons	51.69	- 2
Synthetic fiber	10,000 tons	37.53	- 2.4
Artificial fiber	10,000 tons	14.16	- 0.7
Cotton yarn	10,000 tons	335.4	+ 5.8
Cotton cloth	100 million meters	153.5	+ 7.57
Polyester cotton cloth	100 million meters	27.22	-22.1
Printed and dyed cloth	100 million meters	80.77	- 2.51
Woolen fabric	100 million meters	1.27	+12.4
Woolen yarn	10,000 tons	9.24	+20.92
Gunnysack	100 million	5	+16.55
Silk	10,000 tons	3.21	- 0.8
Imitation silk products	100 million meters	9.14	+ 9.5
Textile machines	10,000 tons	24.40	+12.58

In 1982, the major charactersitcs of textile industrial production were:

First, We Practically and Realistically Achieved Fixed Quotas for Production According to Sales and Organization of Production According to Plan. In 1982, the new situation and new problems that appeared in the textile industry had never before been encountered. First of all, after production increased for years on end, various categories of textile products such as cotton, woolen, gunny and silk products popularly appeared, supplying the market abundantly, and bringing about a situation of production over sales. It was necessary to vigorously promote the sales of mixed polyester cotton cloth, which had all along been in shortage since the seventies. Woolen fabric, pure woolen yarn and silk quilt, which in the past had often been in short supply, separately registered growth in output of 54 percent, 80 percent and 1.2 times between 1979 and 1981. At present, they basically satisfied the market. Secondly, the consumers developed a much greater sense of choice of the quality, variety, design, color and style of the textile products. They would not buy a product if it was not urgently needed, and would not buy a product if the price was high. Thirdly, a state of competing for markets between regions and between enterprises appeared. In light of these problems, on the one hand, the Ministry of Textile Industry emphasized quality and variety, made products marketable, vitalized business and promoted the smooth flow of goods. On the other hand, it strengthened the planned management over the production of textile products, strictly organized production according to plan and maintained a proper balance between production and sales.

In early 1982, in accordance with the directive of the State Council on limiting the output of mixed polyester cloth, the textile industrial departments

readjusted their production plans without delay and made command-style arrangements on limiting the production of mixed polyester cloth. They made arrangements in a planned manner on limiting the production of certain unmarketable pure cotton textile products, such as cotton khaki and gabardine. In a short period of time, the textile enterprises in various localities fulfilled a large volume of work on renovating and changing varieties. The statistics of 17 major provinces and municipalities show that the renovated and improved looms constituted 32 percent of the total number of looms that were in operation. Correspondingly, readjustments were made in the prespinning and postspinning, weaving, preparations and dyeing and treating of cotton cloth, thereby guaranteeing the fulfillment of the task of limiting production. By the end of the year, the output of mixed polyester cloth thoughout the country was 23.18 million meters less than the plan for that year, with an actual reduction of 800 million meters in output compared to 1981, thereby changing the situation of procurement over sales in commerce and overstocking of the enterprises. The statistics of the Ministry of Commerce show that, in 1982, the procurement of mixed polyester cloth (mixed polyester cotton cloth and fiber/viscose filament and staple fiber mixed fabric) was 33 percent below 1981, while the sales increased 1.2 percent. Of this, polyester cotton cloth increased 9.7 percent. The mixed polyester cloth, which manifested supply over demand for a period of time, basically realized a balance between production and sales after planned readjustment.

In spite of the fact that the production of mixed polyester fiber was reduced by 800 million meters, with a reduction of 3.4 billion yuan in output value, the textile industry still made definite progress this year. Under the circumstance when the gross output value basically maintained the level of last year, calculating from comparable specifications, the profits increased 3.86 percent compared to 1981. The textile products for export brought in $3.7 billion in foreign exchange, 5.5 percent over 1981. Taking out such factors as the drop in price of textile products on the international market and the inflation of the dollar, the actual increase was over 10 percent.

Second, We Placed the Question of Quality, Variety, Design, Color and Style in a More Important Position. Having clarified the new situation which the textile industry is facing at present, the textile system in various localities shifted the focus of work onto the variety and quality of products. The work and effort put into this surpassed that of previous years. They were manifested in the following: 1) We strengthened organizational leadership and promoted the development of variety, design and color. The various localities popularly set up product development offices or product research institutes, emphasized product development, trial-manufacture and promotion. In June 1982, the Ministry of Textile Industry convened for the first time since the nation's founding a textile product design work conference for the entire system, and passed the "Provisional Regulations on Textile Product Design Work." This greatly influenced the effort to further organize and mobilize the textile enterprises and product design personnel in various localities in working hard to do a good job of product design. In late September, the National Conference on New Textile Products was convened in Shijiazhuang. At the conference, the attendants exchanged experiences in the work of new product development; discussed the direction, goal and measures for the development of

the nine major categories of textile products, including cotton, woolen, gunny, silk, chemical fiber and knitted products; and studied the problems of how scientific research work and chemical fiber production could meet the demands of variety and quality. At the same time, they revised the plan for developing, trial-manufacturing and promoting new products for 1983 to 1985, and carried out organization and preparation for a planned development of new products in the future and for a national large-scale exhibit of new textile products in 1983. During the conference, new textile product exhibitions were held, displaying 4,387 products, roughly 1,000 of which were new products that were marketable on urban and rural markets as well as the international market. Many products displayed freshness in pattern design, color combination and technology, and realized in a better manner the unity of product appearance with its intrinsic quality, variety, design and color as well as the unity of style, decoration and product design with the sales price. 2) We paid attention to market study and promoted the marketability of products. Throughout the country, 10 product study centers in cotton textile printing and dyeing, yarn-dyed fabric, woolen textile, knitwear, replica, ramie, flax, gunny, chemical fiber and popular colors were successively set up. Correspondingly, the study groups of the entire system basically formed a study network for the market of textile products. In addition, three national product display centers for cotton textile printing and dyeing, knitwear and woolen textiles were successively set up. The various localities also popularly set up comprehensive product display centers as well as product display centers by trades. In the first half of the year, we spent 4 months investigating the situation for the export of textile products of 10 coastal provinces and municipalities to basically understand the present situation and existing products in the export of textile products. In order to strengthen the alliance between industry and trade, a joint administrative system was set up with the Textile Products Import-Export General Company under the Ministry of Foreign Economic Relations and Trade, and joint administrative conferences were held on three successive occasions. 3) We organized various types of "integrated" cooperation in chemical fiber production and dyeing with spinning, weaving, dyeing and treating as the primary tasks. We shattered the boundaries between trades, departments and even regions, and organized the forces of scientific research units, schools and factories, to carry out in concerted effort development of new textile products. We trial-manufactured several dozens of new style chemical fiber raw materials such as polyester fiber, polyvinyl alcohol fiber and polypropylene fiber of different varieties, different specifications and distinctive performance, and succeeded in manufacturing a number of new style chemical fiber textile products such as imitation woolen, imitation silk, imitation gunny and imitation fur products. We developed a group of special new post-treatment products such as burnt-out lace, dried [3628] lace, embroidered braid, broche and ginned products.

Third, We Strengthened Business and Sales Work, and Gradually Developed Our Enterprises From the Production Mode to the Production and Business Mode of Management. In 1982, new changes took place in the relationship between production and sales in the textile industry. Since the nation's founding, we have all along implemented state monopoly of purchase and sales and planned procurement of major textile products. However, in recent years, with the increasing abundance in quantity in the supply of textile products, this

relationship between production and sales which we maintained for over 30 years gradually failed to fully meet the needs of the development of production and circulation. Diverse new forms and new approaches of combining production and sales appeared in various localities.

The launching of sales by the industrial departments themselves was an important form in this change. Statistics of the textile industrial departments of 28 provinces, municipalities and autonomous regions show that, from January to October 1982, the amount of sales of textile products by the textile industrial enterprises themselves throughout the country totaled 3.2 billion yuan, constituting 14.8 percent of the net amount of sales of the commercial units at home during the corresponding period of time. The scope of varieties in self-promoted sales was also very broad, including various categories of products such as chemical fiber, cotton, woolen, gunny, silk, knit, copied and yarn-dyed products. The self-promoted sales included both finished and semi-finished products. There were many forms of sales by the industrial units themselves. In sum, there were the following five forms: 1) The organization of various types of fairs, product sample order exhibits or displays that linked up production and sales, and the invitation of the three-level commercial units inside and outside the province, namely, the supply and marketing cooperatives, the shopping mall and the clothing factories to take part in looking at samples and placing order for goods. 2) The direct establishment of supply and marketing relationships with urban and rural basic-level shops inside and outside the province. The scope of this type of sales network was very broad, and generally had several hundred outlets. These sales network outlets generally played two roles. One was to expand sales, spread the network and carry out multichannel and multilevel sales. The other was to carry out investigation and study and report back to the industrial departments without delay the trends of sales of products of the various sales outlets, thus providing the basis for the enterprises in making business policy decisions and improving variety, design and color. 3) The establishment of a relationship of direct supply with the clothing, shoe and headgear enterprises in order to reduce the links and speed up circulation, thereby not only saving the cost of turnover but also bringing about a more intimate relationship between production and sales. 4) Retail sales departments were established in 1979. By 1982, they increased in scope and in number. The textile industrial departments of various provinces, municipalities, autonomous regions and the prefectures and cities directly under provincial jurisdiction, and even some textile mills, all set up retail sales departments. 5) "Big tarpaulins" were organized to go to rural fairs and deliver goods to the customer's doorstep.

In addition to launching sales by the industrial units themselves, some regions trial-implemented and developed a loose organization of joint industrial-commercial or joint industrial-trade operations before the reform of the system of production and sales. Because it did not involve reform of the system of either side, the alliance was also relatively easy. In addition, it brought the superiority of the industrial and commercial parties and of the industrial and trade parties into play, thereby scoring relatively good results. For instance, the Tianjin Knitwear Industrial Company and the Tianjin Knitwear Station set up the "Joint Industrial-Commercial Committee for Production and

Sales" in October 1982. The Shanghai Knitwear Industrial Co, the Shanghai No 17 Cotton Textile Mill and the Shanghai Silk Import-Export Co formed the "Shanghai Integrated Body of Polyester Knit Goods." They all scored marked economic results.

Fourth, a New Situation of Short Time Frame and Fine Results Appeared in Capital Construction. In 1982, more capital construction investment was made and more completed projects entered into production in the textile system. Having emphasized economic results, strengthened capital construction management, implemented contracting in investment, established all forms of economic system of responsibility and emphasized the progress of actual construction and the quality inspection of the engineering projects, the investment in fixed assets fulfilled for the entire year was 4,938,000,000 yuan. The building construction in the latter half of 1982 was accelerated for the following three key projects: The second stage construction of Jiangsu's Yizheng Chemical Fiber Industrial Joint Company, the second stage construction of the Shanghai Petrochemical General Plant and the Beijing Chemical Fiber Plant. Trial-run was carried out for a portion of the staple fiber project of the Beijing Chemical Fiber Plant. This year, the following completed large-scale and medium-sized projects to enter into production were checked for approval: The Liaoyang Petrochemical Fiber General Co, the Yinchuan No 2 Woolen Textile Mill, the Henan No 1 Woolen Textile Mill, the Yiyang Jute Textile Mill, the Foshan Cotton Textile Mill, and others. The newly-increased production capacity for the entire year included the following: 38,400 tons of chemical fiber, 1,068 1,068,700 cotton textile spindles, and 122,600 woolen textile spindles. The Liaoyang Petrochemical Fiber General Co was one of the large-scale chemical fiber industrial projects launched since the nation's founding. Ground was broken in August 1974. In August 1981, the trial-run for assessment of all the 17 imported facilities was completed and qualified products were produced. After more than a year's trial-run for safety production, the company was formally checked for approval by the state in November 1982.

In 1982, the amount of investment and the number of projects involving renewal and transformation in the textile system also registered definite increase over the preceding year. The investment fulfilled in the renewal and transformation of facilities for the entire year totaled 1,952,000,000 yuan, constituting 30 percent of the gross amount of investment. The newly-increased production capacity through renewal and transformation included: 9,300 tons of chemical fiber, 452,100 cotton textile spindles and 74,300 woolen textile spindles, separately constituting 24 percent, 42 percent and 60 percent of the newly-increased capacity for 1982.

Fifth, We Continued To Strengthen Scientific Research Work. In 1982, scientific research work was prominently manifested in its close integration with production, in particular, in the breakthroughs in scientific research of the major weak links in the course of production. Marked progress was made. First, we readjusted the direction and tasks of scientific research and enabled scientific research to link up more tightly with production. In the 139 scientific research projects which were arranged by the ministry, over 70 percent of the projects directly served production and construction. We withdrew those projects which were not sufficiently linked with production or

which lacked the factors for production, and increased a group of new projects which were closely linked with production, such as raw materials development, product development, product quality improvement and technological transformation. New forms of breakthrough in scientific research appeared. For instance, the Shanghai Textile Bureau and the Shanghai Petrochemical General Plant emphasized chemical fibers and jointly developed new products. Dalian City set up an integrated body of scientific research and production in textile printing and dyeing. The textile machinery industry organized the manufacture of complete sets of facilities for producing 15,000 tons of polyester staple fiber annually. Second, we strengthened the work of popularizing results. Many provincial and municipal textile bureaus set up leading groups for popularizing results and formulated plans for promotion. In 1981, at the National Meeting for Reporting Scientific and Technological Results in the Textile Industry, 193 projects were recommended, 133 of which were popularized and applied on different scales. For instance, the twin-jet singeing torch which was researched and manufactured by Sichuan enabled the quality of singeing of knit goods to move from Class 1-2 up to Class 3-4, which could save roughly 50 percent of natural gas. Third, we readjusted and consolidated the scientific research organs. Currently, with the exception of individual provinces and regions, the textile systems throughout the country have all set up specialized scientific research organs. There are already 95 specialized research institutes throughout the country, with 26,000 staff members and workers, 5,548 of whom are scientific and technological personnel. Many scientific research organs added testing apparatuses and equipment, built experimental work sites and improved the conditions for scientific research. In August 1982, the ministry set up an office of new technology in which concerned departments and bureaus participated. This office was responsible for organizing in a unified manner the work of digesting and absorbing imported technology and the choice of equipment.

Sixth, We Accelerated the Work of Fostering Personnel and "Dual Make-up Lessons" for Staff Members and Workers. In 1982, the textile system built and expanded a number of textile institutions. By the end of the year, 15,000 students were enrolled in the institutions of higher learning related to textiles, and roughly 10,000 students were enrolled in secondary vocational schools related to textiles, both showing growth to varying degrees over the preceding year. The Ministry of Textile Industry also emphasized the program for developing institutions under the ministry, formulated the Sixth 5-Year Plan and 10-Year Plan for the East China Textile Technical Institute, and, in integration with the reform in teaching, revised the teaching outline for a portion of the professional teaching plans and curricula. In order to raise the academic level of the teachers as well as the level of their teaching, study classes and experience-exchange meetings were held successively in Shanghai, Chengdu, Dalian and other places on cotton textiles, machine weaving, textile materials, loom design, textile electrical testing technique, as well as such basic theoretical courses as physics and chemistry. In addition, over 100 middle-aged and young teachers were selected and sent to undergo continuing education at concerned institutions of higher learning both at home and abroad.

In strengthening the education of staff members and workers, in 1982, we emphasized cultural and technological makeup lessons for young staff members and workers as well as those who were in their prime of life. The young staff members and workers as well as those who were in their prime of life who entered the factory after 1966 constituted over 60 percent of the staff members and workers of the textile system throughout the country. Over 1.8 million people required cultural and technological makeup lessons. By the end of the year, over half of them attended "cultural makeup lessons." Over 300,000 people obtained study certificates, constituting 20 percent of the targets for makeup lessons. While launching cultural makeup lessons, the textile industrial departments and enterprises in various localities also strengthened technological training for workers and carried out preparations for and pilot projects in technological makeup lessons. The launching of cultural work and technological makeup lessons further improved the political quality and technological quality of the ranks of staff members and workers, promoted enterprise rectification and raised the level of production technology.

Seventh, We Brought About New Growth in the Production of Textile Machinery and Equipment. The value of textile machinery industrial output fulfilled for the entire year was 1,274,000,000 yuan, 16.7 percent over the preceding year. The output fulfilled was 244,000 tons, 12.58 percent over the preceding year. Product quality was raised steadily.

The level of comprehensive production of textile equipment was also 6 percent over the preceding year. Product quality was raised steadily. The new-style textile equipment increased rapidly. In particular, we expanded the production of some textile equipment that was in short supply, thereby guaranteeing the needs of production and construction in the various textile processing trades and undertakings.

9335
CSO: 4006/208

CHINA'S FARM MACHINERY INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 58-IV 59

[Article by Ji Huasi [0370 5478 9213]]

[Text] During the early stages of reform of the rural economic system, production and sales of farm machinery showed a sustained decline. Since the last half of 1981, with readjustment of the national economy, establishment and perfection of rural production responsibility systems, tremendous changes occurred in the style of agricultural operations, the structure of agricultural production and cash earnings from agriculture. Development of the rural economy hastened the pace of readjustment of the farm machinery industry and occasioned new changes in the farm machinery industry.

1. In order to meet requirements resulting from promotion of production responsibility systems, farm machines tended toward smallness. Farm machines changed from being geared to the needs of collectives to being geared to the needs of millions upon millions of individual households, and production of mostly large and medium farm implements has given way to the production of medium and small ones, good-looking and reasonably priced farm machines that save fuel and electricity predominating.

2. In order to meet needs of rural economic diversification, specialized division of labor and commodity production of agricultural sideline products, farm machines became more diversified. Instead of serving most grain production, they changed to serving the multiple needs of economic diversification and commodity production of agricultural sideline products.

3. In order to satisfy development needs of specialized households, key households and various forms of partnerships, the complete sets of equipment needed in specialized production began to be produced.

Following more than 2 years of active readjustment, a new situation emerged in the farm machinery industry as follows:

Rapid Comeback of Farm Machinery Industry. In 1982, the farm machinery industry produced 7 billion yuan of gross output value. This was a 118 percent fulfillment of the 5,953,000,000 annual plan, up 15 percent from 1981, and approaching the 7,179,000,000 yuan of 1980 during the early period of

readjustment. This reversed the situation of sustained yearly decline. Of 14 major farm machinery products, output of 8 increased over 1981. These eight included mechanical equipment for the raising of chickens, which increased by 72 percent; a 39.3 percent increase in agricultural pumps, a 32.8 percent increase in hand-operated misters (or dusters), a 45 percent increase in small hand tractors; and a 36.8 percent increase in rubber-tired pushcarts. Output of six other fairly large pieces of machinery was lower than in 1981 as the following table shows:

Particulars	Unit	1982 plan	1982 estimated completion	1981 actual	Percent of plan	Percent for the year
Gross industrial output value	(1)	59.53	70.00	60.53	117.6	115.6
Output of major products						
1. Tractors	(2)	4.5	4.4	5.2	98	85
2. Hand tractors	(2)	22.9	27.4	18.9	120	145
3. Tractor-towed plows	(2)	1.8	1.8	2.2	103	83
4. Tractor-towed harrows	(2)	1.5	1.4	1.6	92	85
5. Tractor-towed seed drills	(2)	0.9	1.0	1.2	110	82
6. Large farm wagons	(2)	3.5	3.6	3.9	103	92
7. Combines	(2)	0.28	0.30	0.58	108	52
8. Machine-powered treshing machines	(2)	14.1	13.8	11.3	98	122
9. Machine-powered plant protection machines	(2)	6.6	7.6	6.9	115	110
10. Hand-operated misting (or dusting) devices	(2)	697	894	672	128	133
11. Rubber-tired pushcarts	(2)	1,110	1,269	927	114	137
12. Pasture grass harvesting machines	(3)	2,032	1,898	1,728	93	110
13. Mechanical equipment for raising chickens	(3)	1,400	1,617	940	116	172
14. Agricultural pumps	(2)	51.1	67.8	48.4	132	140

Unit key: (1) 100 million yuan
(2) 10,000 units
(3) Units

Economic results have improved substantially. Commodity storage fell from the 4,345,000,000 yuan of the early part of the year to 3.7 billion yuan in a 14.8 percent decline. Farm machinery industries realized 280 million yuan in profits for the year, versus 194 million yuan in 1981, or a 44.3 percent

increase. Profits of 240 million yuan were paid to the state, 21 percent more than in 1981. Losses among enterprises incurring losses fell from 43 percent in 1981 to 35 percent in 1982, a 10 percent [sic] decline in losses.

The foregoing circumstances show an across-the-board and solid comeback for farm machinery. Major work done in the farm machinery industry during 1982 may be capsulized as follows:

I. Active Readjustment and Reorganization To Upgrade Economic Effectiveness

Farm machine industries unable to find markets for their products, or that consumed large amounts of energy, or that had poor administration and management continued to be readjusted. During 1981 and 1982, a group of enterprises turning out poor-quality goods for high prices and showing losses over a long period of time were closed. During the past 2 years, for example, production was halted or plants closed at the following places: Nanhe Farm Machinery Plant, Jian Municipal Farm Machinery Plant, Xinyang Tractor Plant, Mengjin Farm Machinery Plant, Shaoyang Dongfanghong Farm Implement Plant, Yongxing Farm Repair Plant, Zigong Municipal Farm Machinery Plant, Longchang County Plow Plant, Chengdu Municipal Qingbaijiang Farm Machinery Plant, Baoji Farm Machinery Plant, Li County Power Vehicle Plant and Baiquan Farm Machinery Parts Plant. Enterprises without enough work to do, and enterprises that sold their products in the same markets or had similar technology were merged. Examples included the merger of the Changchun Farm Machine Accessories Plant with the Changchun Farm Machine Accessories Plant with the Changchun Printing Machinery Plant, and the merger of the Zhuzhou Hand Tractor Plant and the Zhuzhou Chain Plant to form the Zhuzhou Main Chain Plant. Plants that formerly were unable to find markets for their goods were converted to the production of goods in short supply. Examples included the Baotou, Xuzhou and Wafangdian Tractor Plants, which were converted to the production of animal husbandry machines; the Liuzhou Tractor Plant, which was converted to production of mini motor vehicles; and the Xiamen Tractor Plant, which was converted to the production of printing machines. Yet another group of enterprises was designated for conversion to other lines or for an expansion of service. Examples included the Laiyang Tractor Plant, and the Guangzhou Municipal Tractor Manufacturing Plant, which became textile industry plants, and the Fengshou Tractor Plant in Shanghai, which was converted into a bicycle manufacturing industry.

Organization of some key enterprises, and readjustment of product structure increased marketability of products, improved capabilities to adjust to market changes, and advanced development of production. One example was the Haerbin Farm Machinery Plant, which formerly produced only a single product, the 48-row seed drill. Now it produces 6 different machines including a 10-row seed drill, corn planters, pressure-roller seed-planting machines, and cultivators, which has vitalized production. The Xuzhou Farm Machinery Plant specialized in production of harrows. In recent years, it had a serious shortage of work to do in manufacturing harrows, so the plant developed production of threshing machines, turning out more than 2,000 units in 1982, the output value of its threshing machine representing one-third the output value of the plant as a whole.

Reorganization of enterprises. Remarkable results were scored in the building of leadership teams, in perfecting economic responsibility systems, in reorganizing labor and labor discipline, and in improving the appearance of plants in 32 mainstay enterprises comprising the first group to be reorganized in 1982. The Qinghai Forging Plant, for example, had losses year after year because of a lack of work. As a result of reorganization, firm attention to product quality, widening of marketing avenues, concentration on production, and emphasis on thrift, the enterprise changed and overfulfilled annual production plans by 23 percent.

II. Active Promotion of Scientific Management Methods and Guaranteeing Consistent and Improved Product Quality

Resurgence of farm machinery production and sales in 1982, and a shortage in the supply of some small name-brand farm implements further strengthened the psychology of "quality first," and "customers first." Serious attention was given to product inspections. Methods for inspecting component parts to produce superior products and overall individual unit standards were formulated, and inspection, comparison and assessment campaigns as part of industry-organized competitions were actively launched to spur on improvements in product quality. Today there are 4,969 quality management teams numbering 33,000 people. During 1982, 13 of these teams received awards from the states as outstanding teams. Of 342 enterprises that carried out self-examinations using ministry-issued requirements, 190 or 55.6 percent of all enterprises participating in the self-examination, met standards. Numerous enterprises set up quality-guarantee systems, management work thereby becoming systematized, standardized and efficient. Widespread development of all-round quality-control work effectively guaranteed consistency and improvement of product quality.

In 1982, 6 products received national silver or gold awards for quality, and 24 products received awards for excellence.

The list of farm machinery products receiving national awards for excellence was as follows:

Name of product	Producing unit
Gold award products	(Not including three kinds of internal combustion engines)
Dongfeng brand, Dongfeng Model 12 hand tractor	Changzhou Tractor Plant, Jiangsu Province
Taihu brand, Dongfeng Model 12 hand tractor	Wuxi County Tractor Plant, Jiangsu Province
Jinniu brand, Jinniu Model 12 hand tractor	Shenyang Small Tractor Plant

[continued]

[continued list]

Name of product	Producing unit
Silver award products	(Does not include eight kinds of internal combustion engines)
Xiongtuo brand, Taishan Model 12 hand tractor	Weifang Tractor Plant, Shandong Province
Nanyue brand, Gongnong Model 10 hand tractor	Hengyang Tractor Plant, Hunan Province
Jiangxi brand, Dongfeng Model 12 hand tractor	Jiangxi Hand Tractor Plant

Both quality and technical performance of products receiving awards have substantially improved, including the "three leaks" and cleanliness of tractors. Tractors produced by 9 out of 11 enterprises that participated in the 1982 inspection had no leaks whatsoever, and tractors from 2 enterprises had only very minor leaks. Dirtiness was less than 8 milligrams per horsepower for superior tractors.

III. Implementation of a Program of Scientific and Technical Progress To Produce Many Achievements in Research and in New Products

During 1982, 134 scientific research projects were completed, including 41 that received prizes for invention or prizes for achievement, and 46 new products were created. Among these projects were tea-drying machines, small peanut-digging machines, fruit-picking machines, small tea grove cultivators, and complete machines for broken black tea used in development of economic diversification and for cash crop and agricultural sideline product processing, which the peasants welcomed. In addition there were products of fairly advanced standards suited to China's circumstances, such as newly successfully developed mechanized chicken-raising equipment, including 48 different machine manufactures in 9 systems, such as incubators, chick brooders, chicken coops, stacked chicken coops, feeding, loading of feed, storage of feed, movement of feed, drinking water, dung removal, environmental control, egg collection and automatically controlled chicken houses. These are divided into two major categories of raising in coops and raising in the open, with raising stock breeds of chickens and breeding chickens as well as the incubation and raising of chicks, raising pullets, and raising frying chickens or laying hens. Each set of equipment costs 150,000 yuan and may be used to raise 15,000 chickens, the complete set of equipment meeting international standards of the mid-1970's. Such complete sets of chicken raising equipment were installed on nearly 1,000 chicken farms in 28 provinces, municipalities and autonomous regions, providing rather good economic results. Then there is the high-speed, high-performance Model 2 By-24 pressure roller type combination grain sowing machine that was successfully developed for use on the Sanjiang Plain of northeastern China, which incorporates advanced international technology from the 1970's. In addition, in view of the lack of

meshed farm machinery and implements in China, it is suited to use on plains and in arid areas for large-area sowing of wheat in rows as well as for the sowing of soybeans, gaoliang, millet and corn. It was used effectively and is capable of making a furrow, sowing the seeds, adding fertilizer, pressing both into the ground and covering the furrows with soil in a single operation. The product approaches or reaches advanced international standards for the same kind of equipment. In order to meet the needs of rural promotion of various kinds of responsibility systems, emphasis was also given to experiments with advanced models of small tractors, with five different small 3-5 horsepower tractors being recommended.

IV. Development of Small Farm Machinery and Implements, and Carrying Out a Policy of Producing Whatever the Peasants Need

Once rural villages instituted economic responsibility systems, the scale of production became small, and both economic diversification and the growing of cash crops saw all-round development. This made the supply of various kinds of small farm machines an urgent necessity. During the past 2 years, an upsurge took place in the country's farflung rural villages whereby individual peasants or households in partnership bought small farm machines. It was estimated that about 2 million tractors were bought by peasant households in partnership or by individuals (some of them in the name of collectives). This is about two-thirds the total number of tractors in the whole country. Groups of specialized households using farm machinery emerged everywhere, relying on farm machines to become rich. Under these circumstances, a shortage of supply of small farm machines suited to peasant needs began to occur. During the past 2 years, peasants particularly wanted farm machines that were light, small, easy to operate, cheap and sturdy, or, put another way, "first, small; second, good; and third, not requiring much money." This brought about a readjustment of farm machine products, and gave impetus to the rapid development of small farm machines and implements, and semimechanized farm implements. During 1982, output value of small farm machines rose from the former one-third to more than 41 percent of the output value of the farm machine industry. Increase in the numbers of small tractors, small threshing machines, small pasture grass machines, and small plant protection and hauling machines was greater than the average 15 percent speed of growth of the farm machine industry. Growth of some equipment was particularly rapid, small complete equipment for household raising of chickens, for example. In 1982, production plans called for 300 units, but 5,000 units were made during the years for a 16-fold overfulfillment of plan.

9432
CSO: 4007/47

CHINA'S CHEMICAL FERTILIZER INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 90-IV 91

[Article by Investigation and Research Office, Ministry of Chemical Industry]

[Text] The chemical fertilizer industry is a major industrial sector supporting agricultural production. At the time of the birth of New China, the country had only two nitrogenous fertilizer plants, the Dalian Chemical Plant and the Nanjing Yonglining Plant. These plants produced only 5,700 tons annually of a single kind of fertilizer, ammonium sulfate.

Following liberation, the state devoted extreme attention to chemical fertilizer production. It placed the chemical fertilizer industry at the center of chemical industry development, and carried out a series of programs and policies including simultaneous development of large, medium and small plants, independence and autonomy, self-reliance and making foreign things serve China, bringing into full play the initiative of both central and regional governments to promote speedy development of the chemical fertilizer industry. Today China has more than 2,000 large, medium and small chemical fertilizer enterprises spread throughout individual provinces, municipalities and autonomous regions. More than 1,300 of them are nitrogenous fertilizer plants, and nearly 700 are phosphate fertilizer plants. Former use of primarily coal and coke as raw materials gave way to simultaneous use of coal, petroleum and gas. In 1982, chemical fertilizer output reached 12,781,000 tons of which 10,219,000 tons were nitrogenous fertilizer, 2,537,000 tons were phosphate fertilizer, and 25,000 tons were potash fertilizer. Between 1949 and 1982, China's chemical fertilizer output averaged annual incremental increases of 26.3 percent. Use of chemical fertilizer produced in China increased from the 0.0038 kg per mu (0.057 kg per hectare) of the period immediately following liberation to 8.49 kg per mu (127.35 kg per hectare) in 1982. Principal kinds include urea, ammonium nitrate, ammonium bicarbonate, ammonium chloride superphosphate, calcium magnesium phosphate, ammonium phosphate, potassium chloride, potassium sulfate, trace-element chemical fertilizer and humic acid fertilizer.

China's nitrogenous fertilizer industry has grown fairly rapidly. During the 1950's, nitrogenous fertilizer plants were built in Jilin, Lanzhou and Taiyuan, and the two old chemical fertilizer plants at Dalian and Nanjing were revived

and expanded. Beginning in the 1960's, the state centrally organized the importation of advanced foreign experiences and summarized domestic production practice. It designed a 50,000 ton per year synthetic ammonia complex, the equipment for which China itself manufactured and installed, and built more than 20 medium-size nitrogenous fertilizer plants at Wujing in Shanghai, Quzhou, Guangzhou, Kaifeng, and at Jianjiang in Guizhou Province. In order to accelerate development of the chemical fertilizer industry, during the early 1970's more advanced technology was imported from abroad in the form of 13 units with an output of 1,000 tons per day of synthetic ammonia and 1,600 tons of urea. The Sichuan Chemical Plant, the Luzhou Natural Gas Chemical Plant, the Yunnan Natural Gas Chemical Plant, the Chishui Natural Gas Chemical Fertilizer Plant in Guizhou Province, the Daqing Chemical Fertilizer Plant, the Liaohe Chemical Fertilizer Plant, the Cangzhou Chemical Fertilizer Plant in Hebei, the No 2 Chemical Plant of the Qilu Petroleum Chemical Co in Shandong, the Qixiashan Chemical Fertilizer Plant at Nanjing, Jiangsu Province, the Anqing Petroleum Chemical Plant Fertilizer Plant in Anhui the Dongting Nitrogenous Fertilizer Plant in Hunan, the Hubei Provincial Chemical Fertilizer Plant, and the Guangzhou Petroleum Chemical Plant were all built. In 1982, these facilities produced a total of 3,446,000 tons of ammonia.

With the rapid development of agriculture, enthusiasm for chemical fertilizer ran very high everywhere, and construction of a group of small nitrogenous fertilizer plants began, synthetic ammonia output of each plant being between 5,000 and 20,000 tons annually, mostly in the form of ammonium bicarbonate, but with a small number of plants producing ammonium chloride and ammonium sulfate. Because ammonium bicarbonate readily decomposes, only when it is packaged tightly and applied deeply does it yield good results. These nitrogenous fertilizer plants invented an ammonium bicarbonate industrial production flow suited to China's circumstances. They researched, designed and successfully manufactured all the equipment themselves. The main raw material for small nitrogenous fertilizer plants is coal, and full use may be made of scattered local deposits. During the 1970's, the Changtai Synthetic Ammonia Plant in Fujian Province successfully used powdered bituminous coal to produce carboniferous coal balls or manmade coal lumps. This widened the source of raw materials for small nitrogenous fertilizer plants. In 1982, China had more than 1,200 small nitrogenous fertilizer plants producing 8,379,000 tons of synthetic ammonia, or 54.2 percent of the country's total synthetic ammonia output, making such plants a major force in China's chemical fertilizer industry.

China is more than self-sufficient in the catalysts used in nitrogenous fertilizer production. It has gone from production of 50-odd tons of two kinds of catalysts in 1953 to the production of 20,000 tons of 44 kinds of 15 types. Not only is it able to satisfy completely the needs of medium and small chemical fertilizer plants, but is also substantially able to satisfy needs of large chemical fertilizer plants.

Up until liberation, China had no phosphate fertilizer industry at all. It was not until 1955 that industrial production began, and then output was only 1,400 tons. In 1958, a common calcium plant with an annual output of 400,000 tons was built at Nanjing, and small phosphate fertilizer plants went into

operation everywhere. Today there are small phosphate fertilizer plants in one-third of the country's provinces, municipalities and autonomous regions, their output accounting for more than 90 percent of total phosphate fertilizer output. Phosphate fertilizers are, for the most part, common calcium superphosphate and calcium magnesium phosphate, plus a small amount of double calcium superphosphate, steel slag phosphate fertilizer, precipitated calcium phosphate, ammonium phosphate, potassium nitrate, potassium dihydrogen phosphate, and compound nitrogenous, phosphate and potash fertilizer. At the present time, China has only a few small plants producing potash fertilizer. Output is very small, amounting to only between 20,000 and 30,000 tons annually.

During the past few years, production of trace-element fertilizer has been mostly boron, zinc, manganese, copper and molybdenum varieties. These have been tested over wide areas on cotton and rapeseed crops, producing remarkable increases in yields. In 1982, about 5,000 tons of trace element fertilizer was used on an area of more than 20 million mu.

In recent years, organic chemical fertilizers, such as humic acid and nitrohumic acid fertilizers, have been trial produced. These fertilizers function to improve soils, make fertilizers more effective, and stimulate crop growth.

Quality of chemical fertilizers improved further during 1982. Output of ammonium bicarbonate from small nitrogenous fertilizer plants met specifications 99.5 percent of the time. The specifications rate for urea from medium-size nitrogenous fertilizer plants was 96.41 percent. Because of the poor grade of phosphate rock, and the average third-rate quality of common calcium, quality of calcium magnesium phosphate produced by major phosphate fertilizer plants was second grade.

Consumption of raw materials, fuel and power used in the production of chemical fertilizer continued to fall. In 1982, small nitrogenous fertilizer plant consumption of coal and charcoal was 2,105 kg per ton versus 2,269 kg, or 7.2 percent less, than in 1981. Power consumption was 1,400 kW hours, versus 1,458 kW hours, or 4 percent less, than in 1981. Total power consumption or large chemical fertilizer plants averaged 9.94 million kilocalories per ton of ammonia, versus 10.09 million kilocalories. or 1.5 percent less, than in 1981. Charcoal and coal consumption of medium-size nitrogenous fertilizer plants and of major calcium magnesium phosphate fertilizer plants also declined. For the year as a whole, chemical fertilizer plants in the industry saved 1.64 million tons of standard coal.

Status of Chemical Fertilizer Production

Year	Chemical fertilizer output (10,000 tons)	Including (Units: 10,000 tons)		
		Nitrogen fertilizer	Phosphate fertilizer	Potash fertilizer
1949	0.6	0.6		
1959	26.6	16.4	9.09	1.2
1969	174.9	102.3	72.3	0.3
1979	1,065.35	882.05	181.72	1.56
1982	1,278.1	1,021.9	253.7	2.5

Note: Figures in table figured in terms of 100 percent effective nitrogen, phosphate and potash.

9432
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CHINA'S ENVIRONMENTAL PROTECTION ACTIVITIES

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 109-IV 112

[Article by Composite Office, Environmental Bureau, Ministry of Urban and Rural Construction and Environmental Protection]

[Text] As part of the restructuring of national organizations in 1982, the State Council established the Ministry of Urban and Rural Construction and Environmental Protection and strengthened leadership of the whole country's environmental protection work with beneficial results.

I. Basic Situation

1. Atmosphere. Monitoring statistics for 18 cities in south China and 17 cities in north China show that most of China's atmospheric pollution comes from coal. Basic pollutants are sulfur dioxide, carbon dioxide, particulates and dust. The amount of particulates and falling dust has risen since 1981, and the amount of carbon dioxide and sulfur dioxide has remained stable (see table).

2. Water Quality. Water quality in China's seven major water systems is as follows:

The Chang Jiang System. Water quality in the main stream remains fairly good. Polluted stretches exist along the shore where large and medium cities are located, but pollution diminishes downstream from cities.

The Huang He System. The principal polluted area remains the middle reaches. Because of the large amount of silt in the water system, which absorbs large amounts of organic matter, not much organic matter is found in the water. Tributaries are seriously polluted, most notably the Wei He and the Fan He.

The Zhu Jiang System. Except for stretches near Guangzhou and the Xi Jiang, pollution is fairly light in most of this water system, and water quality is basically good.

	Sulfur dioxide (milligrams per cubic meter		Carbon dioxide (milligrams per cubic meter		Particulates (milligrams per cubic meter)		Falling dust (tons per square km per month)	
	1981	1982	1981	1982	1981	1982	1981	1982
Average for 18 south China cities	0.10	0.11	0.04	0.04	0.38	0.40	18.62	20.57
Amount in excess of standards in 18 south China cities (percent)	15.8	16.7	0	0	57.1	66.7	--	--
Average for 17 south China cities	0.11	0.12	0.06	0.05	0.87	0.93	45.69	50.83
Amount in excess of standards in 17 south China cities (percent)	31.3	25.0	0	6	100	100	--	--
Average for the 35 cities in north and south China	0.11	0.11	0.05	0.05	0.62	0.65	32.15	35.27
Amount in excess of standards for the 35 cities (percent)	22.2	20.0	0	2	83.3	87.1	--	--

The Huai He System. Water quality in the Henan section is very good, but pollution is pronounced in the Huainan section and the Bangfou section. During the low-water period each year, water quality is worst, but pollution does not exceed standards during the high-water period.

Daliao Water System. Pollution remains worst during the low-water season, greatly exceeding standards and posing a great threat to the Bohai.

Songhua Jiang System. Of 15 major sections of this system, pollution is worst in the Jilin Jiang, the Fuyu Jiang and the Haerbin Jiang sections. Most pollutants are organic matter, but mercury pollution poses a potential threat.

Haihe System. Copious quantities of water arrive from upstream, so water pollution does not exceed standards for the most part. Downstream pollution from nitrates, nitrogen and arsenic considerably exceeds standards. As a result of protracted drought since 1980, the amount of water arriving from upstream has diminished, so downstream water quality has deteriorated.

3. Solid Wastes. Statistics from 17 provinces, municipalities and autonomous regions show a decline from 1981 in the amounts of solid wastes discharged, and a rise in the multiple utilization rate. Nevertheless, processing and use of solid wastes remains a conspicuous problem.

Particulars	Units	1981	1982
Amount of wastes produced	10,000 tons	26,471	22,306
Including: those used in multiple ways	" "	4,628	4,800
multiple utilization rate	percent	17.0	21.5
Wastes accumulated over the years	10,000 tons	415,760	248,790

II. New Successes

1. Improvement in Quality of Urban Environment

During 1982, every city in the country intensified environmental controls and took some actions for all-round prevention and control, with the result that the environment improved to a certain extent.

Beijing Municipality. Plans call for control of 469 major sources of pollution in 7 major streams, and 450 were brought under control. The amount of industrial waste water daily discharged in close-in suburban areas was reduced by 85,000 tons, and the 15 percent treatment rate of 1980 was raised to 21 percent. Forty street offices within the city improved 5,800 of a total of 6,100 boilers. Of the more than 800 seriously polluting plants (or workshops) inside the city's 3 circumferential highways, 466 were brought under control, and pollution annoyance to the public reduced.

Hangzhou City. As of the end of 1982, the city built facilities for the processing of 72,000 tons of industrial waste water daily, or 26 percent of the volume requiring treatment. Another 80,000 tons per day treatment capacity is under construction. Effective action was taken to eliminate smoke and get rid of dust from more than 430 boilers and 76 industrial furnaces throughout the city. Action was taken to control or eliminate industrial noise at more than 50 sources. In order to better protect the scenic area of Xi Hu, eight industrial plants moved out of the Xi Hu scenic area; another two are in the process of moving, and yet another two will shortly move. The Xi Hu pleasure boat bearing plant, which occupied the "Quyuan Fenghe" scenic spot moved and merged with the powder metallurgy plant. The Hangzhou Television Plant that was formerly at Lingyin moved to the Tianmushan Road electric instruments industrial area.

Suzhou City. During 1982, continued control of water was the main job. Funds amounting to 7.6 million yuan were collected, including 5.06 million in fees for the discharge of pollutants, and 57 control projects planned for, 40 of which were subsequently completed. As of the end of the year, the city finished 165 projects for control of the "three wastes" [waste water, waste gas and industrial residue]. It was also able to treat in varying degrees 66,000 tons per day of waste water, which was 47 percent of the total waste water discharged. An overwhelming majority of the 370,000 tons of industrial residues discharged annually are now being used, and 343 boilers, or 81 percent of the total requiring renovation, renovated. As a result of control, toxic

substances in water such as cadmium, arsenic and phenol are being controlled in some areas. At the Beiyuan Waterworks, arsenic and cadmium toxic pollution are substantially controlled, and phenol pollution markedly reduced in Xu Jiang river water. After action was taken to change the water in streams within the city, water stagnation problems improved.

Guilin City. During 1982, the city discharged 125 million tons of waste water, 92 million tons or 74 percent of which met standards for discharge. Fifty-three percent, or 168 of 316 boilers were renovated. In addition, a goodly portion of coal ashes are used to make bricks. Adoption of all-round control measures by some old enterprises substantially improved environmental quality. As a result of strengthening pollution prevention and control, pollution of the city from boilers was reduced; the atmosphere is taking a turn for the better, and quality of water in the Li Jiang further improved.

2. Closing, Suspension, Merging and Retooling of Some Seriously Polluting Enterprises as Part of Industrial Readjustment

During 1982, the whole country worked to combine industrial readjustment and reorganization with the closing suspension, merging and retooling of some industrial enterprises that consumed large amounts of energy, seriously polluted, and were not very economically effective. Statistics from 25 provinces, municipalities and autonomous regions show a total of almost 4,000 industrial plants as being closed or suspended, most of which were enterprises whose pollution annoyed the public.

The Shanghai Municipal Instruments Bureau, Handicrafts Industry Bureau, and First Machine Building Bureau consolidated nearly 70 electroplating plants in 3 electroplating centers built in Pengpu. These plants were formerly scattered throughout congested residential areas and along the Huangpu Jiang. Yangpu District formerly had 102 heat treatment sites, the first batch of 47 of which were moved into 4 plants of the Shanghai Machine Tool Plant. This will annually save 2.8 million kW hours of electricity, reduce pollution and moderate conflicts with the masses.

Shandong Province closed, suspended, merged or retooled 762 industrial enterprises that consumed large amounts of energy, wasted a great deal and caused pollution that disturbed the public. The Shengli oilfields closely coordinated with Huimin Prefecture to ban the building of 713 illegal indigenous oil-refining boilers for an annual saving of about 150,000 tons of crude oil and elimination of atmospheric pollution. Jinan City abolished 86 electroplating, casting, forging and heat treatment sites and built 6 cooperative technology centers.

3. An Overwhelming Majority of Large and Medium Capital Construction Projects Instituted Regulations Providing for the Design, Construction and Coming On-stream of Facilities for the Prevention and Control of Pollution and Other Public Nuisances Simultaneous With the Main Project

According to a survey of 92 construction projects either built or planned to be built in 1982 conducted by 22 provinces, municipalities and autonomous

regions, and 4 ministries and commissions including the Ministry of Metallurgical Industry, the Ministry of Petroleum Industry, the Ministry of Light Industry, and the National Defense Scientific and Technical Commission, 70 projects, or 76 percent, had substantially carried out the "three simultaneous" regulations; 19 projects, or 21 percent, had taken some action on major pollutants; and 3 projects, or 3 percent, either did not meet technical standards or had taken no action to control or prevent pollution. This was the best year for carrying out the "three simultaneous" regulations.

In 1982, much attention was given key project environmental impact report examination and approval. Examples include the "728" nuclear power station, the Guangdong nuclear power station, the Baima power plant in Sichuan Province, and the Shizhuyuan ore mines in Hunan. The "728" nuclear power station and the Guangdong nuclear power station are the first two nuclear power stations to have been built in China, and their environmental impact reports were approved following expert testimony.

4. Further Strengthening Environmental Science and Technology Research and Environmental Monitoring Work

Between 1978 and the end of 1982, China had more than 1,000 scientific and technical achievements in environmental protection, the most important of which were the following: 1) comprehensive research on environmental quality in Beijing, Nanjing, Shenyang, Guilin, Bohai and the Yellow Sea, the Songhua Jiang, the Huang He, the Chang Jiang and the Xiang Jiang as well as in the Beijing-Tianjin-Tangshan area; 2) some successes were gained in research on environmental pollution prevention and control techniques such as prevention and control of mercury pollution by industries that hydrolize sodium chloride into chlorine and sodium hydroxide using mercury electrodes, and multiple uses of coal ashes; 3) study was begun of the damage done to human bodies by chemical poisons, noise and electromagnetic waves.

Environmental monitoring work also made substantial advances during 1982. Fifty-seven of the country's 64 key environmental monitoring stations completed finishing touches on projects as a result of which the country has, for the first time, a monitoring network that is able to report environmental quality of cities and bodies of water. A nationwide survey of acid rain was organized beginning in March 1982, and the country's first evaluation of the state of acid rain pollution was made, which attracted the serious attention of all quarters. A book titled, "Basic Status of Environmental Quality in Some Regions and Cities of China in 1981" was also published.

5. Progress in Environmental Protection Work as Well. More than 20 of the country's provinces, municipalities and autonomous regions surveyed and compiled data on the natural environment and on the use and destruction of resources in their own areas. Substantial progress was also made in scientific observation and research work on natural preserves and on rare plants and animals. This included scientific examination of the overall environment of Hanasi and Aerjinshan in Xianjiang Province, scientific examination of She Island and Laotieshan in Liaoning Province, an evaluation of the natural quality of Hainan Island in Guangdong Province, an ecological evaluation of the

environmental impact of reclamation of lake lands for agriculture in Hubei Province, and a preevaluation of the effects on environment of development of resources in Huainan and Huaibei, Anhui Province from which initial results have been obtained.

In 1982, the first "Chinese natural protection exhibition" was held in Beijing. It was viewed by 140,000 people and was well regarded by observers from China and abroad. Following the Beijing appearance, the exhibition traveled through eight provinces, municipalities and autonomous regions. This year, a "love the birds week," and indoctrination in the planting of trees for afforestation and protection of the natural environment will be held throughout the country.

III. New Paths

On 29 December 1981, leading central government comrades issued important instructions on environmental protection work at Angang as follows: "Anshan Steel Mill's self-reliance, its all-round use of resources and energy, and its experience in control of the 'three wastes' merit serious attention. Please organize and promote them conscientiously. Newspapers should propagandize them."

After more than half a year of forwarding for implementation and of summarization and promotion, the Ministry of Urban and Rural Construction and Environmental Protection and the State Economic Commission jointly convened a "conference for the exchange of experiences on prevention and control of pollution in the national industrial system" in August 1982. This conference summarized basic experiences in prevention and control of industrial pollution, namely, first use of technical improvements, improvement of resource and energy utilization rates, elimination insofar as possible fo the "three wastes," in the industrial process, and making every effort to cure root causes of industrial pollution; second, multiple uses of the "three wastes" that are discharged to turn them into resources, thereby making wastes valuable, turning a disadvantage into an advantage. This should provide a foundation for cleanup measures that are technically advanced, make good economic sense, and produce marked results against pollutants where problems cannot be solved yet the pollutants must be discharged. Necessary purification treatment must be done so as to attain national standards for discharge of pollutants. Simultaneous with the reorganization of enterprises, there should be a strengthening of administration and management; environmental protection should be made a part of economic responsibility systems, and effective environmental control carried out. A large body of practical experience demonstrated that this is a new path requiring little expenditure of money and that brings quick results; it can both improve the quality of the environment and can also advance development of production. All that is necessary is adherence to this path, and the country's serious industrial pollution situation can certainly be fundamentally turned around.

IV. New Development

On 10 December 1982, the Fifth Session of the Fifth National People's Congress approved the "Chinese People's Republic Sixth 5-Year Plan for Economic and Social Development," and rather fully took into consideration the interdependent and mutually restrictive relationship existing among population, resources, environment and development. They noted the coordinated development and overall balance among them, and set forth the fundamental objectives, tasks and major actions to be taken for environmental protection, placing these matters in a special environmental protection article. Among the basic tasks of the plan, environmental protection objectives during the Sixth 5-Year Plan period were clearly identified as strengthening environmental protection and a halt to further pollution, plus improvement of the state of the environment in some key areas. In investing in the capital construction of fixed assets, plans should be drawn for environmental protection, staff member and worker housing, and urban construction all at the same time. In investment in replacement and remodeling, emphasis should be placed on clear rules about energy conservation and about conservation of raw and processed materials, rational use of resources, and control of serious pollution. One of the goals of scientific and technical development and the training of skilled people should be advancement of environmental protection endeavors, problems in environmental protection and pollution control techniques being made one of the key scientific and technical areas to be tackled. Development plans for energy, metallurgy, chemical and machinery industries, and for agriculture, forestry, water conservancy and rural sideline occupations, as well as building the economies of coastal areas, renovating the land and urban and rural construction should have environmental protection as a specific ingredient and requirement. In short, the state made environmental protection a part of the Sixth 5-Year Plan for the first time in the more than 30 years since the founding of the nation, and this is a very important new development for environmental protection endeavors.

On 23 August 1982, the 24th Session of the National People's Congress Standing Committee passed the "Chinese People's Republic Marine Environmental Protection Law." On 1 March 1983, this formally took effect. This will give powerful impetus to development of China's marine environmental protection endeavors.

V. A New Situation--Acid Rain

Today acid rain pollution has become a prominent environmental problem the world over. Results of national acid rain monitoring showed acid rain in 22 out of 25 provinces, municipalities and autonomous regions mostly in southwestern, south central and eastern China. It is particularly severe south of the Chang Jiang and increases gradually in intensity from north to south.

Acid rain pollution is very harmful to farming, forestry, the fishing industry and human health. South of the Chang Jiang, the soil is acidic in most places, and acid rain will make it even more acidic, seriously damaging farm crop outputs and causing no end of future trouble.

In China, acid rain is caused mostly by the large quantities of sulfur dioxide discharged from the burning of coal by industries and the people in their daily lives that enters the atmosphere and becomes oxidized as water condenses. The most fundamental way in which to guard against acid rain pollution is to make full use of the sulfur in coal, and to reduce to the maximum degree possible the amount of sulfur dioxide that is discharged. Principal actions that China is considering are the building of large bases that use coal in multiple ways and hastening the building of urban gasification; energetic washing and processing of coal to recover sulfur from the coal and selective adoption of techniques for the removal of sulfur from smoke when building large electric power plants, thus recovering sulfur dioxide to produce sulfuric acid and sulfur; "separate production and separate transportation" of coal, fixed-point supply and development of smokeless, low-sulfur solid fuels.

VI. Prospects

In December 1982, the Ministry of Urban and Rural Construction and Environmental Protection convened a national symposium on environmental protection work in Nanjing, which formulated strategic objectives, key points and steps to be taken in the building of China's environment. It was envisioned that objectives for building China's environment up until the year 2000 should be substantial solution to the problem of national environmental pollution and destruction of the ecology, energetic efforts to clean up the living and production environment of urban and rural people, substantial revival of a beautiful, natural ecological environment, and attainment of a comfortably well-off level of environmental requirements suited to development of the national economy and the people's material and cultural life.

Attainment of the foregoing objectives will require prevention and control of industrial pollution and destruction of the ecological environment as key strategic points. Strategic measures may be divided into two steps as follows: mostly a halt to increase in environmental pollution and destruction of the ecological balance during the first 10 years, with the launching of all-round building of the environment during the last 10 years for basic solution to China's environmental problems. During the period of the Sixth 5-Year Plan, intensification of environmental pollution should be firmly halted, and the environment improved in key areas.

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CHINA'S RAILROAD TRANSPORTATION

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 113-IV 115

[Article by the General Office of the Ministry of Railways]

[Text] In 1982, under the leadership of the party Central Committee and the State Council, the railroad departments throughout the country conscientiously did a good job in all aspects of work in accordance with the demand to emphasize both material civilization and spiritual civilization and to not hold up either the restructuring of organizations or transportation production. Especially after the formation of leading organs under the new ministry in April, a work conference for the entire rail system was convened, during which further planning was carried out on the work for the entire year. New achievements were scored in transportation production and construction as well as all other aspects of work of the entire rail system. Heartening changes also took place in the outlook of the railroad. These were primarily manifested in the following:

The Highest Level in History Was Scored in Railroad Passenger and Cargo Transportation

After several years of readjustment, a situation of steady growth in the national economy appeared. As a result, the volume of railroad passenger and freight transportation grew rapidly. In 1982, we fulfilled the state plans for passenger and freight transportation 14 days and 21 days ahead of schedule respectively. We transported 56.35 million pieces of luggage and packages, 2.39 million pieces more than 1981, showing an increase of 4.4 percent. We transported 56.35 million pieces of luggage and packages, 2.39 million pieces more than 1981, showing an increase of 4.4 percent. We transported a total of 4.1 million foreign guests, overseas Chinese and compatriots from Hong Kong and Macau throughout the year, thereby maintaining the level of 1981. We also scored new achievements in various technological quotas. All these represented the excellent situation of the steady rise in industrial and agricultural production after the readjustment of the national economy (see Table 1).

Table 1. Table Showing the Situation in Which the Major Quotas of Railroad Transportation in 1982 Were Fulfilled

Item	Unit	Plan	Fulfilled	Percent of plan	Percent compared to 1981
Number of passengers	10,000 people	95,000	99,921	105.2	104.8
Volume of passenger turnover	100 million people per km	1,444	1,575	109.1	106.9
Volume of freight dispatched	10,000 tons	104,000	113,532	109.1	105.4
Volume of freight turnover	100 million tons/km	5,616	6,120	109	107.1
Daily average carload	car	58,400	61,300	105	104.6
Static load of freight car	ton	48.4	49.2	101.7	101.2
Turnover time of freight car	day	3.26	3.22	101.2	99.7
Gross weight of average tow of freight engine	ton		2,021		101.3
Daily km of freight engine	km	405	407	100.5	99.0
Daily output of freight engine	10,000 tons	70.5	72.0	102.1	100.3
Punctuality of passenger train departure	percent		99.2		+ 0.1
Punctuality of passenger train operation	percent		94.5		+ 0.9
Punctuality of freight train departure	percent		92.0		- 0.5
Punctuality of freight train operation	percent		89.2		- 1.3

In the transportation work in 1982, the railroad departments regarded the major materials such as coal, which affected the overall situation of the national economy, as the key, and gave priority to carrying, loading and transporting these materials. As a result, we overfulfilled the

transportation plans for the entire year for the various key materials, with increases to varying degrees over 1981. In particular, the volume of transportation for such materials as the raw materials, fuel and construction materials used in industrial and agricultural production as well as capital construction increased by a relatively wide margin. Of this:

The proportion of the volume of coal transportation for the entire rail system in the gross volume of transportation rose from 39.3 percent in 1981 to 39.5 percent in 1982. In coal transportation, the railroad departments conscientiously emphasized the transportation to such key regions as Beijing, Tianjin, Shanghai and Liaoning as well as to such key coal-using units as power, metallurgical industrial and locomotive units, scoring relatively good achievements and rendering positive contributions to the development of the national economy. We transported 90.37 million tons of coal out of Shanxi for the entire year, 107.6 percent over the plan, and 8.86 million tons and 10.9 percent increase over 1981. We transported 20.51 million tons of coal to the northeast China region, 3.72 million tons and 22.2 percent increase over 1981. We transported 26.2 million tons of coal to the east China region, 3.46 million tons and 15.2 percent increase over 1981. We overfulfilled the plans for transporting coal for use by various key factories and enterprises and of coal for use in people's livelihood in various places, thereby satisfying needs. As heavy industry picked up again, the state's investment in capital construction increased and the scale of construction involving production and livelihood expanded, the volume of transportation of raw materials, fuel and construction materials also increased by a wide margin (see Table 2).

Table 2. Table Showing the Fulfillment of Transportation of Major Materials by Railroad in 1982

Unit: 100,000 tons

Item	Annual plan	Fulfilled	Percent of plan	Percent compared to 1981
Gross volume of railroad transport	104,000	111,048	106.8	105.9
Coal	41,500	43,846	105.7	106.4
Iron and steel	5,200	5,876	113.0	106.5
Metallic ores	5,200	5,646	108.6	105.8
Nonmetallic ores	5,400	5,862	108.6	101.2
Coke	1,200	1,216	101.3	93.8
Petroleum	4,700	5,042	107.3	101.3
Mining construction materials	14,500	16,275	112.2	116.7
Cement	2,430	2,501	102.9	103.1
Timber	3,950	4,098	103.8	101.6
Chemical fertilizer and farm chemicals	2,490	2,500	100.4	101.9
Grain	3,450	3,465	100.4	101.1
Cotton	180	205	113.9	112.6
Phosphorus	1,000	1,170	117.0	111.1
Salt	800	898	112.3	100.0

The increased passenger volume, which was primarily concentrated on the various trunk lines, and the technological transformation projects on many trunk lines tied up a portion of the transportation capacity. As a result, the shortage in transportation became even more prominent. In order to fulfill the state plans for transportation and satisfy the needs of the various departments of the national economy in a better manner, the railroad departments took the tapping of potentials and the raising of transportation efficiency as the major means to solve the shortage in transportation. We made full use of the Beijing-Tong Xian line to divert the transportation of coal out of Shanhaiguan. In 1981, we increased the express freight train from three pairs to six pairs. In the latter half of 1982, by changing to twin-engine hauling, we raised the freight car load from 2,200 tons to 3,300 tons, thereby expanding the capacity of transporting materials out of Shanhaguan. The freight cars of the Jinan-Huanghe-Xinqiao line branched out from the Tianjin-Huangpu line were increased from four pairs to six pairs. The freight cars which were branched out to the Fu Jia line were again increased, relaxing the tension of the Xuzhou Railroad Center. In 1982, we carried out technological transformation on the railroad for transporting coal out of Shanxi, and used the diversion to the Handan-Changzhi line in order to guarantee the transportation of coal out of Shanxi and the progress of construction, thereby solving the contradiction of the large-scale repairs of the Taiyuan-Jiaozuo line and the transportation of coal out of southeast Shanxi. In electrifying the Fengtai-Shacheng-Datong line, we adopted twin-engine hauling for the trains going south, and raised the train load from 2,000 tons to 3,500 tons. This not only guaranteed the needs of the electrification of the "Fengtai-Shacheng-Datong line," but also guaranteed the transportation of coal out of the Datong and Yanbei districts in Shanxi. In carrying out the project of the Yimaling Tunnel of the Beijing-Taiyuan line, it was necessary to close down certain sections of the line for 6 hours every day and reduce the transportation capacity to four pairs. The reduced portion was compensated for by the roundabout route through the Shijizhuang-Taiyuan line and through raising the hauling load of the train, so that both construction and transportation were not affected. Under the situation when large-scale construction was launched on various lines, the volume of coal transportation out of Shanxi in 1982 registered the highest level in history. Using the diversion to the Hefei-Jiujiang line, tension of the Shanghai-Hangzhou and Hangzhou-Zhuzhou lines was relaxed. By strengthening the cooperation of the points of demarcation and making good use of the existing capacity of the limited zones and sections, we were able to draw the various railroad bureaus together in closer cooperation, with close train connections and links in the utilization of locomotives. Many points of demarcation operated on a full train schedule by utilizing every line of operation and surpassing the plans in dispatching heavy cars. In 1982, the gross weight of average engine haul for freight transportation for the entire rail system was 2,021 tons, 25 tons over 1981 and an increase of 1.3 percent. The above-normal tonnage hauled by engines for the entire year was over 88 million tons, equivalent to 4,400 trains each loading 2,000 tons.

In order to relax the tension in passenger transportation and solve the serious problem of overloading passenger cars, the entire rail system further strengthened the organizational work in passenger transportation, carried out

investigations and study beforehand of the passenger transportation during the Spring Festival as well as peak-season transportation during the summer and other holidays, drew up a temporary map for passenger train operation, tried each and every means to attain planned transportation and balanced transportation and do a good job of the division of labor between long-distance and short-distance passenger trains, and guaranteed the needs of transportation. On the basis of carrying out investigation and study, we expanded the 47 pairs of express passenger trains on the three trunk lines of the Beijing-Guangzhou line, the Beijing-Harbin line and the Beijing-Shanghai line. This was equivalent to increasing 6.5 pairs of express passenger trains. We expanded our daily transportation capacity to over 20,000 people, and increased our income by some 200,000 yuan. In less than 4 months, we recovered the 21 million yuan of technological and facilities fees which were used in expanding the marshaling of passenger trains, thereby attaining the results of using little money, starting projects rapidly and obtaining fast results.

The Amount of Investment Fulfilled in Railroad Capital Construction Almost Doubled

The State Council attached great importance to railroad construction. First, it increased the investment in railroad capital construction. Second, the State Council specially convened a meeting and made a decision on accelerating the progress of the construction of the Beijing-Qinhuangdao line and other lines. In 1982, the focus of the railroad capital construction throughout the country was still to transport coal out of Shanxi, to transport coal and phosphorus out of the southwest, as well as the complementary facilities for the railroad trunk lines that led to the coastal cities and harbors. The leading cadres at various levels penetrated into the first line of construction to strengthen command and organize construction, rationally allocate forces, emphasize the results of investment, solve without delay the problems in construction, and fulfill the tasks of capital construction in a better manner. The progress of the various key projects was generally accelerated, thus changing the situation of the holdup in work in 1981 because there was insufficient investment and because the construction ranks "did not have enough to eat."

In 1982, the gross investment fulfilled in railroad capital construction was 2,459,000,000 yuan, 1,206,000,000 yuan more than 1981, showing an increase by 96.2 percent. The newly-increased fixed assets for the entire year was 2,658,000,000 yuan, over 2 times more than 1981. The utilization of fixed assets was 54.5 percent. There were 12 large-scale and medium-sized projects which entered into production as stipulated by the state. Two of them fully entered into production: The newly-built Southwest Communications University, with a construction area of 165,000 square meters and accommodating 3,600 students. The electrification project for the 276 km of the Ankang-Da Xian section of the Xiangfan-Chongqing line was completed, with the entry into production of 10 individual projects. Four projects were completed according to plan: the 65 km from Jiatun to Balizhuang of the Shijiazhuang-Chengde multiple tracks, which began operation in December 1982. The electrification of the 116 km from Yangquan to Taiyuan of the Shijiazhuang-Taiyuan line was

completed and began operation in September 1982. The marshaling station west of Jinan of the Jinan Railroad Center of the Tianjin-Huangpu multiple tracks was completed, and was open for use in September 1982. The Suzhou passenger station of the Shanghai-Nanjing multiple tracks was formally open for use in June 1982, with 5,735 square meters of newly-increased area for the station's buildings. Four partially-completed projects entered into production: A total of 43.8 km of multiple tracks of seven zones of the Jinan-Qingdao multiple tracks began operation; with the exception of the 3.5 km from Pingtaiji to Shangqiu, the 88.5 km of the Xuzhou-Shangqiu section of the Lianyinggang-Lanzhou multiple tracks began operation; the 33.3 km of multiple tracks in the six zones of the Datong-Baotou section of the Beijing-Baotou multiple tracks were open for use; and the Genshanmen marshaling station, marshaling platform, arrival platform and arrival and departure platform of the Shanghai-Hangzhou multiple tracks were utilized. The two individual projects which were unable to enter production according to plan were: The Zhengzhou Railroad Center and the Zhenru Passenger Station.

In 1982, in addition to the plans for entry into production, there were five projects which partially entered into production: The 30.5 km of the Luoman-Liuzhou section of the Zhicheng-Liuzhou line were utilized by the end of 1982. The 3.4 km of multiple tracks of the east Shanghai-Zhenru section of the Shanghai-Nanjing multiple tracks began operation in September 1982. The 10.6 km of multiple tracks covering three zones of the Shanghai-Hangzhou multiple tracks began operation in August 1982. The 11.8 km of the Harbin-Manzhouli multiple tracks began operation by the end of 1982. The 6.6 km of multiple tracks of the Shuangqiao-Tong Xian section of the Beijing Railroad Center began operation in November 1982.

The Situation of the Fulfilled Investment in Railroad Capital Construction in 1982

Item	Investment (in 100 million yuan) fulfilled in 1982	Percent of 1982 compared to 1981
Total	24.59	196.2
Technological transformation of railroad in operation	10.77	157.2
Newly-built railroad	6.93	208.9
Industrial construction	1.36	146.7
Purchase of rolling stock	3.63	400.4
Institutions and schools and scientific research	0.38	108.9
Projects to repair destruction by water	1.19	--
Others	0.33	183.4

The actual volume of capital construction work completed for the entire year increased by a relatively wide margin compared to 1981.

The Actual Volume of Railroad Capital Construction Work Completed in 1982

Item	Unit	Completed in 1982	Completed in 1981	Percent of 1982 compared to 1981
Rails laid for the principal lines	km	404.5	416.6	97.1
Rails laid for the station lines	km	493.8	254.5	194.0
Earthwork for roadbed	cubic meters	2,725	783	348.0
Tunnels	meters	9,488	5,995	158.3
Large and medium-sized bridges	meters	19,119	5,699	335.5
Building of official housing	square meters	2,447,617	1,700,302	144.0

Relatively rapid progress was made in the various key construction projects in 1982. For instance, from the full-scale launching of the construction of the Beijing-Qinhuangdao Railroad in March to the end of the year, 64 percent of the earthwork for the roadbed of the entire line, 65 percent of the bridges, 36 percent of the tunnels and 16 percent of the rails laid for the principal lines were completed, with the exception of the concerned projects of the Beijing Railroad Center. Basic breakthroughs were made regarding 19 key projects with controlled time frame. Such progress was rarely seen in the history of railroad construction.

Relatively Good Results Were Scored in the Science and Technology and Financial Receipts and Payments Involving Industrial Production

In 1982, the gross value of industrial output fulfilled by the factories under the Ministry of Railways was 2.35 billion yuan, 122 percent of the year's plan, and 17.5 percent over 1981. The plans for the repair and manufacture of rolling stock, and the production railroad signals, bridges, soft cushions, timber antirot, and parts were overfulfilled, with increase by a relatively wide margin over 1981. Of this, the newly-manufactured internal combustion engine and the electric locomotive separately increased by 65.7 percent and 75 percent, while the newly-manufactured freight cars increased by over 20 percent. The quality of the various special-purpose products for the railroad was slightly raised, and the rate of first-class products was raised to varying degrees. In this year, the railroad industrial departments also trial-manufactured a number of new products. In addition to fulfilling the plans, the railroad industrial departments also shouldered some tasks involving the processing of imported materials and exports to foreign countries.

In 1982, the railroad scientific research work revolved around current transportation needs and long-term programs, and made new breakthroughs in the research on high-power internal combustion engines, electric locomotives and new-style passenger train and large-size freight cars. New progress was also made in the research work to raise the railroad comprehensive transportation capacity and to strengthen railroad business management. This year, 61 major scientific and technological results of the entire rail system passed the appraisal at the ministerial level. At the National Congress of Scientific and Technological Awards in 1982, six railroad projects, including the "relay semiautomatic block system," won the state's award for invention. The three projects of the feasibility, structure and character of the Markov process won the state's natural science award. In 1 year, the staff members and workers of the entire rail system realized 19,423 technological transformation projects, 673 of which were of relatively large-scale.

In 1982, while overfulfilling the transportation production tasks, the railroad departments strengthened enterprise management on a general scale. Through all-round rectification, some units began to change from an exclusive emphasis on output and output value to a business management with raising economic results as the key, and scored relatively good results accordingly. The income from transportation fulfilled for the entire year was 12.28 billion yuan, 112 percent of the plan and 8.6 percent over 1981; 3.05 billion yuan of profit was realized, 22.9 percent over 1981, surpassing the speed of increase in transportation production, and establishing the highest level in history. In the entire year, we utilized 149 million yuan of reserves, 109.3 percent of the plan. Through various forms such as control and redistribution, we handled and utilized 19.1 million yuan of stockpiled materials. In the entire year, we saved over 100 million yuan in value of all kinds of materials, including 30,000 tons of steel products, 6,000 cubic meters of timber, 14,600 tons of cement, and 1,428 tons of nonferrous metal. We repaired and utilized 66.68 million yuan of old or discarded things. We overfulfilled all the plans to practice economy. In the entire year, we retrieved 650,000 tons of discarded steel, 130 percent of the year's plan and 5.9 percent over 1981.

In 1982, we scored new achivements in saving coal and petroleum for the locomotives. The steam locomotive consumed 105.6 kg of coal for every 10,000 ton/km, 10.9 kg below the plan, saving a total of 1.9 million tons of natural coal. Because of the changes in the transportation sections and the coal type, the coal consumption for every 10,000 ton/km was 0.7 kg higher than 1981. The internal combustion engine consumed 33.1 kg of petroleum for every 10,000 ton/km, 2.9 percent lower than 1981 and 5.9 kg lower than the plan, saving a total of 147,000 tons of petroleum for the entire year. The electric locomotive consumed 120.6 kWh of electricity for every 10,000 ton/km, 17.4 kWh lower than the plan, and saving 67 million kWh of electricity. We also scored relatively good results in economizing on the use of coal and electricity in industrial production and in livelihood.

We Deepened the Activity of "the People's Railroad Serving the People," and Did a Good Job of Building a Spiritual Civilization

In 1982, the railroad departments popularly strengthened ideological and political work. We launched education on the party's style and the style of

the rail system as well as education on combating corruption and establishing idealism and morality, carried out ideological and political work in transportation production and construction, and further developed the excellent situation of security and unity of the railroad departments. At the same time, we also emphasized the problems in passenger and freight transportation services, and regarded the restoration of the fine style of the rail system in which "the people's railroad should serve the people" as the focus in doing a good job of building a spiritual civilization. Following the activity of "civilization and courtesy month by all people" which was launched in March throughout the country, in June, the entire rail system again launched in a broad and penetrating manner the activity of "the people's railroad should serve the people" with safety and punctuality, respect for passengers and love for cargo and service of outstanding quality as the major contents. Adopting such methods as going out to others and inviting others to come in, the various railroad bureaus, branch bureaus and stations and sections convened symposiums for travelers and cargo-owners in order to solicit opinions and study measures for improvement. The broad masses of staff members and workers had the travelers and cargo-owners at heart and continued to improve the quality of service. The leading personnel at various levels, from the minister and deputy minister of railways to the personnel at the basic-level stations and sections, all stood in line to purchase train tickets and rode on slow trains as average travelers, and conducted investigations and study accordingly to understand the situation. Together with the broad masses of staff members and workers, they solved the problems in transportation production as well as in passenger and freight transportation services. With a widespread mass foundation, relatively solid work and effective measures, we were able to launch this activity with relatively marked results.

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CHINA'S HIGHWAY TRANSPORTATION

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 115-IV 117

[Article by Jiao Lu [3542 6424]]

[Text] In 1982, the highway transportation departments throughout the country continued to implement the principle of readjusting, restructuring, consolidating and improving, took raising economic results as the key, worked hard to improve business management, actively promoted the economic system of responsibility, vigorously emphasized the quality of safety and the quality of service, and made new developments in highway transportation, capital construction and industrial production.

I. Highway Transportation

In 1982, we scored good results in highway transportation. The highway departments throughout the country have all overfulfilled the state plans for passenger and freight transportation, with an increase of 14.93 percent and 10.17 percent over 1981, respectively (for details, see Table 1).

Table 1. The Situation of the Fulfillment of the Major Targets of Highway Specialized Transportation in 1982

Items	Unit	Volume actually fulfilled	Percent compared to 1981
Volume of passenger transportation	10,000 people	300,610	114.93
Highway passenger turnover	100 million people/km	964	114.89
Volume of freight transportation by highway departments	10,000 tons	78,777	110.17
Of the above, the volume of vehicular freight transportation	10,000 tons	61,778	115.99
Freight turnover by highway departments	100 million tons/km	303.12	119.81
Of the above, vehicular freight turnover	100 million tons/km	294.61	120.74

Greater improvement was made in rural passenger transportation. In 1982, the communications departments in various localities vigorously developed rural short-distance passenger transportation networks with the county seats as the centers, extended the lines of operation, and increased the frequency of passenger bus operations, the number of bus stops as well as the number of overnight services for the rural areas, in order to meet the needs of the growing development of the rural economy and make bus rides convenient for the peasants. Roughly 75 percent of the people's communes throughout the country have operated passenger bus services. Over 96 percent of the communes in Guangxi Zhuang Autonomous Region have passenger bus services. In that region, 96 percent of passenger bus services and 91 percent of the passenger buses of the Tianyang County Bus Station offered rural short-distance passenger transport services. The Shaoxing County Bus Station in Zhejiang Province operated "field service buses" to take the peasants to and from work in the mornings and evenings. The Changde Bus Station in Hunan Province operated the "fair buses" wherever the fairs were, thus offering convenience for the peasants going to the fairs and vitalizing the rural economy.

In 1982, new development was again made in highway containerized transportation. Currently the transportation departments have set up the following larger companies handling the highway containerized transportation business: The Vehicular Transportation General Company under the Ministry of Communications, the Beijing-Tianjin-Hebei Containerized Joint Transport Company, the Northern Containerized Joint Transport Company and the Southern Containerized Joint Transport Company. These companies primarily shouldered the dispersion and transport of imported international containers of the coastal harbors and of the through transport of containers via domestic highways and railways. The imported international containers which the highway departments throughout the country handled constituted 33 percent of the gross volume of containers handled by the harbors, with an actual increase of 94 percent over 1981. The containers which they handled via joint highway and railroad transportation constituted 14.1 percent of the gross incoming and outgoing volume handled by the railroad, an actual increase of 32.3 percent over 1981.

Good results were scored in letting the highways assume part of the railroad passenger and freight transportation. In order to meet the needs of the four modernizations and the people's livelihood, reduce the pressure on railroad passenger and freight transportation and give full play to the role of motor vehicles in short-distance transportation, the communications system in Henan Province and Beijing Municipality launched pilot projects in letting motor vehicles assume part of the train passenger and freight transportation. Very good results were seen. By the end of 1982, Henan began to operate 20 lines from Zhengzhou to Kaifeng, Zhengzhou to Xinxiang, Zhengzhou to Xuchang, Xinxiang to Jiaozuo, Xuchang to Pingdingshan, Xinxiang to Anyang, Anyang to Handan, Zhengzhou to Xinmi, Zhenzhou to Jiaozuo, Kaifeng to Lankao, Xuchang to Luohe, Zhumadian to Xinyang, Zhengzhou to Luoyang, Zhengzhou to Pingdingshan, Luoyang to Sanmenxia, Sanmenxia to Lingbao, Luoyang to Xuchang, Luoyang to Nanyang, Nanyang to Deng Xian and Deng Xian to Xiangfan. A total length of 1,964 km of highway diffused the railroad passenger transportation. A total of 254 passenger vehicles were put into operation, with a total of 10,484 seats and a daily transportation capacity of 40,000 people. The

average daily distance of each vehicle was 256 km, with the highest being 404 km, 32 percent higher than the average daily distance of each vehicle throughout the province. The rate of actual load was maintained at 85 to 90 percent. The Huang He No 680 passenger train obtained an annual per-vehicle profit of 35,000 yuan, and the Dongfeng No 662 passenger train obtained an annual per-vehicle profit of around 17,000 yuan. This showed an increase of 50 percent over the average level throughout the province. Since the diversion of railroad passenger transportation by highways, we preliminarily relaxed the tension of railroad passenger transportation around Zhengzhou. The Beijing Municipal Bureau of Communications and Transportation took the initiative to enter into consultations with the railroad and other sectors, actively launched the work of diverting railroad freight transportation by highway, and gradually transferred the short-distance transportation which was under 50 km and which directly affected the capacity of the railroad trunk lines and centers over to vehicular transportation. In 1982, the short-distance transportation volume throughout the municipality which was handled by motor vehicles already totaled 800,000 tons, with definite economic results for both the customers and the transportation departments.

Safety work in highway transportation took a marked turn for the better. In 1982, the communications departments at various levels throughout the country conscientiously implemented the principles of "safety first" and "comprehensive management with prevention as the key," and actively launched such activities as "safety month" and "safety and quality month." They vigorously readjusted order in communications, readjusted labor discipline, strengthened highway administrative control, conducted in a broad and penetrating manner the propaganda and education on abiding by traffic regulations and safeguarding traffic order and on common knowledge in traffic safety, handled violations and accidents in a big way, and scored marked results accordingly. The various targets involving traffic accidents for the entire year dropped in general compared to 1981. Of this, the number of accidents dropped by 9.51 percent, the number of injuries dropped by 10.26 percent, the number of deaths dropped by 1.49 percent and the direct economic losses dropped by 4.41 percent.

The transportation enterprises scored marked economic results in implementing the economic system of responsibility. In 1982, in light of the demand of the work of launching overall economic reform in the country, the communications departments at various levels carried out pilot projects in various forms of economic system of responsibility with contracting as the key. The communications system in Anhui Province implemented the system of responsibility in business results for the whole trade. The productivity and economic results of the enterprises were generally raised by over one-third, and some even doubled and redoubled. As of the first half of 1982, the Dalian Automobile Company learned from the experience of the Capital Iron and Steel Co, and implemented the economic system of responsibility inside the enterprise. It overfulfilled its profit plan for the entire year by 2.3 million yuan. The Jiangning County Motor Vehicle Passenger and Freight Transportation Co in Jiangsu Province carried out a pilot project on contracting motor vehicles, and doubled and quadrupled its annual profit respectively. The transportation enterprises under the system of collective ownership in Shu Xian in Anhui

Province and Fu Xian in Liaoning implemented contracting motor vehicles for each individual. As a result, the income of the state, collective and staff members and workers all registered increase by a relatively wide margin.

II. Highway Construction and Maintenance

The mileage of new roads increased slightly. In 1982, the communications departments in various localities continued to implement the principle of "making overall plans, strengthening maintenance, making improvements actively, developing key projects, carrying out scientific management and guaranteeing smooth flow," and scored new achievements in highway construction. In 1 year, there were over 9,500 km of new highways throughout the country, with 1,082 km of main highways, 357 km of special-purpose highways, and over 8,000 km of county and commune highways. The seven provinces of Nei Monggol, Jiangsu, Zhejiang, Fujian, Jiangxi, Guangdong and Sichuan separately built over 500 km of new Class 4 highways throughout the year. Fujian Province built over 800 km of new highways and Sichuan Province over 1,000 km. The tourist highways to such scenic spots and historical sites and major scenic spots as Bada Ling, Emei Shan and Wudang Shan were completed and in operation.

The southeastern area of Shanxi Province developed county and commune roads on a large scale. That area was situated in the Taihang and Taiyue mountainous region, over 85 percent of which was mountains and hills. In that region were undulating hills and crisscrossing ravines and separated by river valleys, with very poor transport facilities. In order to develop the economy of the mountainous region and change its outlook of poverty, in 1982, the masses in that region were mobilized in a widespread manner to whip up an upsurge in highway construction. A total of 118 highways, 1,248 km in length, were repaired and built, 668 cubic meters of roadbed earthwork were dug, 12 large and medium-sized bridges were built, and 846 culverts and 3 tunnels were built throughout the year. A total of over 4.6 million workers took part in the construction. The newly-built highways throughout the region in that year was equivalent to the sum total of the highways built in the 8 years prior to the Third Plenary Session. By the end of 1982, 98.8 percent of the communes and 85.5 percent of the production brigades throughout the region had highways that were in operation. The highway freight transportation volume and turnover were 30 percent and 12 percent over 1981, respectively.

Some progress was made in the building of deadend roads. In recent years, our country's highway construction developed very rapidly. But some important highways across provinces and regions were not repaired. As a result, the transportation vehicles must go the long way, thereby affecting the development of the economy of a locality and the economic results of highway transportation. In order to solve this problem, in April 1982, the State Council issued a "Notice on the Deadline for Repairing Deadend Roads of the Main Highways at the State and Provincial Level." The Ministry of Communications convened a special meeting for the responsible comrades of the various provincial, municipal and autonomous region communications departments (bureaus) as well as concerned units to implement the task of the construction of the first group of deadend roads and the plan for the construction of the second group of deadend roads. The first group of deadend roads to be opened within a definite

schedule had 24 sections and 514 km. The second group of deadend roads to be arranged for opening within a definite schedule had 28 sections and 904 km. Ground was broken for the deadend roads inside the districts under the jurisdiction of such provinces and municipalities as Shandong, Sichuan, Jiangsu, and Tianjin in July 1982 and construction is presently being emphasized.

Highway bridge construction developed still further. In 1982, 3,480 new highway bridges were built throughout the country, extending to a total length of over 110,000 meters. The Huang He Bridge in Jinan and the Chang Jiang Bridge in Luzhou are of relatively large scale and complex technology. The Huang He Bridge in Jinan, formally in operation, is situated in the northern suburb of Jinan City. Its entire length is 2,023.44 meters and its width 19.5 meters. It is composed of the main bridge and bridge approaches. The main bridge has five arches, the span of the main arch being 220 meters, the largest span of the completed highway bridges in our country. This large bridge connects the state highways on the northern and southern banks of the Huang He inside Shandong Province. Vehicles can pass smoothly without obstacles over the Huang He in Jinan. This played an extremely important role in promoting economic development, promoting the north-south flow of materials across the Huang He and satisfying the needs of the people's livelihood. The Chang Jiang Bridge in Luzhou is situated in Luzhou Township in Sichuan Province. Its entire length is 1,252.5 meters, and its width 16 meters. It is composed of the main bridge and bridge approaches. The main bridge has five arches, and the span of the main arch is 170 meters. It is the longest highway bridge on the Chang Jiang in our country at present. Ground was broken for the bridge in October 1977 and vehicular service formally began on 1 October 1982. After the bridge was in operation, the communications and transportation for the three provinces of Yunnan, Guizhou and Sichuan in our country were facilitated. In addition, over 10 highway bridges, including the Ou Jiang Bridge in Wenzhou of Zhejiang, the Shayang Bridge in Hubei, the Changde Bridge in Hunan, the Huang He Bridge in Baotou of Nei Monggol, the Nandu Jiang Bridge in Guangdong and the Quanzhou Bridge in Fujian were also under construction.

The work of highway maintenance was further strengthened. In June 1982, the Ministry of Communications specially convened the National Conference on the Work of Highway Maintenance to sum up the experiences and lessons in road maintenance since 1963 and to focus on studying measures to strengthen the work of highway maintenance. In 1982, over 4,000 km of new asphalt and residual-oil roads were paved throughout the country, bringing the rate of paved highways throughout the country up to 76.28 percent. The average rate of good highways throughout the country was 55.1 percent, and the rate of good main highways was 62.9 percent, which were 3.1 percent and 5.2 percent over 1981 respectively. The road situation of the main highways of 22 provinces, municipalities and autonomous regions throughout the country was somewhat better than 1981. The rate of good roads for the eight provinces, municipalities and autonomous regions of Hunan, Yunnan, Beijing, Xinjiang, Guangxi, Heilongjiang, Shanxi and Nei Monggol was raised by more than 10 percent compared to 1981. The rate of good roads for the five provinces, municipalities and autonomous regions of Guangdong, Shaanxi, Shanghai, Tianjin and Ningxia was raised by more than 5 percent compared to 1981. In the 12 provinces and municipalities of Beijing, Tianjin, Shanghai, Hebei, Shanxi,

Liaoning, Jilin, Heilongjiang, Jiangsu, Anhui, Shandong and Henan, highways at and above Class 4 technological criteria constituted over 70 percent of the total highway mileage of the respective provinces.

III. Highway Industry

In 1982, the highway industry throughout the country produced over 7,900 passenger buses and nearly 14,000 trailers, with a gross value of industrial output amounting to 1.63 billion yuan. In 1982, the gross value of industrial output fulfilled by the highway industrial enterprises directly under the Ministry of Communications was 23 percent higher than 1981; and the profits delivered to the state was 16 percent higher than 1981. The enterprises either fulfilled or overfulfilled the state plans for 31 of the 32 major products that were listed in the plans. Of this, asphalt concrete pavers increased by 68 percent, steel bridges increased by 28 percent and asphalt sprinklers increased by 20 percent.

In 1982, the long-distance passenger buses of the communications departments popularly used the Jiefang and Dongfeng brand special-purpose chassis, popularized the JT662 body that had the Dongfeng model as its basis, increased the production of the JT680 passenger bus with the Huang He model as its basis, improved the technological condition of the long-distance passenger buses, and raised the economic results of the enterprises and society. In addition, they researched and trial-manufactured such new-style vehicles as the JT662 convertible passenger bus, the JT680 improved passenger bus, the articulated bus, the JT663 air-conditioned bus, and the rear engine large diesel passenger bus, and machinery equipment as the large-size Spodosol mixers and the power-driven granular material mixers.

IV. Highway Scientific Management

In 1982, the communications departments in various localities popularly strengthened the scientific research and scientific management work on highway communications, and brought about a number of scientific and technological results, including apparatuses to test the bending, tensile, shearing and cutting strengths of soft road surface, the construction of pulverized coal ash road, the cold resistance of the asphalt mixture and the strength of the road surface. They also organized concerned departments to carry out assessment and appraisal. At the same time, they published such technological criteria as "Technological Criteria for Repairing the JT3101-81 Bus," "Construction Criteria for Highway Asphalt Road Surface," "Criteria for Highway Signs and Lines," "Regulations for Testing Highway Construction Materials (Cement Concrete, Stone and Metal)," "Regulations for Highway Construction Survey," and "Regulations for Highway Bridge Position Survey." These played an important guiding role in our country's highway construction and automobile repairs. In addition, they also revised the "Regulations for the Technology of Highway Maintenance" and drafted the "Specific Regulations on Certain Policy Issues Concerning the Transportation Enterprises Under the System of Collective Ownership."

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CHINA'S WATER TRANSPORTATION

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[Article by Jiao Mi [3542 1378]]

[Text] China's water transportation includes inland water transportation, coastal transportation and ocean transportation, as well as other production undertakings that serve transportation, such as harbor production, water transportation industry, harbor construction, waterway construction, rescue and salvage and ocean towing. In 1982, the broad masses of staff members and workers of the water transportation front implemented in a penetrating manner the principle of readjusting, restructuring, consolidating and improving, took the raising of economic results as the key, worked hard to raise transportation efficiency and service quality, and scored new achievements accordingly.

1. Great changes and improvements were made in the guiding thinking in communications construction. First, we further clarified the thinking of the necessity to manage well the communications work throughout the country and gradually changed the condition of managing the organs under central jurisdiction and not the localities. In our work, we paid attention to bringing the role of local communications into play and strengthened the management over local communications. Second, we raised our understanding of the multilevel, diverse and multichannel structure of the communications sytem in our country, attached importance to mobilizing the enthusiasm of various fields, and brought into play the role of various transportation forces. Third, we further understood the position and role of inland water transportation, regarded inland water transportation as an important indication in creating a new state in communications and transportation, decided to change the faulty conditions in the development of inland water transportation and strengthened the leadership over the work of inland shipping. Fourth, we further understood that communications and transportation function both as a department of material production and a department of basic public service facilities, and clearly proposed that we should put the raising of the overall socioeconomic result in the foremost position and do our best to serve properly the needs of society. Fifth, we also reached a more profound understanding of the need to rely on scientific and technological progress in order to change the backward outlook of communications and transportation and attached importance to emphasizing scientific research and technological progress.

2. We further developed the work of waterway passenger and freight transportation throughout the country. In order to guarantee the fulfillment of the task of passenger transportation, in 1982, the various shipping units strengthened their organization and management in transportation. The water transportation departments throughout the country put a new group of passenger ships into operation and also restored the passenger lines from Shanghai to Fuzho. The passenger volume fulfilled by the water transportation departments for the entire year was 1.5 percent over 1981. Of this, the passenger volume fulfilled by the shipping departments under the central authorities surpassed the year's plan by 20.2 percent, with an increase of 1.6 percent over 1981. For details, see the following table:

Table Showing the Situation of the Fulfillment of Passenger Volume by Water Transportation in 1982

	Passenger volume (10,000 people)	Turnover of passenger transportation (100 million people/km)
Total	28,070	144.54
Coastal	1,300	27.70
Inland rivers	26,700	114.65
Ocean	70	2.19

We also scored new achievements in waterway freight transportation. In 1982, in light of the new situation of the continuous growth of the volume of transport and the big changes in the structure of the sources and flow of goods, the various units tried each and every means to tap transportation potentials and raise the utilization of ships and equipment. Through the close coordination and vigorous support of various concerned departments, they overfulfilled the transportation plans for the entire year, and even guaranteed the transportation of coal, petroleum, foreign trade import-export materials as well as other key materials. In 1982, the freight volume fulfilled by the water transportation departments throughout the country was 8.1 percent over 1981. For details, see the following table:

Table Showing the Situation of the Fulfillment of the Freight Volume by Water Transportation in 1982

	Freight volume (10,000 tons)	Turnover of goods (100 million tons/km)
Total	44,300	5,477.13
Inland rivers	32,000	650.86
Coastal	7,700	1,057.31
Ocean	4,600	3,768.96

3. We did a relatively good job in fulfilling the plan for foreign trade import and export by sea transportation. The foreign trade transportation volume fulfilled for the entire year surpassed the year's plan by 8.7 percent, with an increase of 10.9 percent over 1981. We also overfulfilled all the plans for the transportation of such key materials as grain, chemical fertilizer, edible sugar, timber and steel products.

In order to meet the needs of the development of foreign trade, in 1982, with the approval of the state, the Jiuzhou, Shekou and Quanzhou harbors were formally opened to the outside world. The Nantong and Zhangjiakou harbors on the Chang Jiang were opened to foreign ships. Such inland harbors as Wuzhou, Jiangmen and Zhaoqing as well as the Huangpu Harbor began operating passenger lines to Hong Kong.

4. The inland, coastal and ocean shipping departments further strengthened the organization of transportation. By the end of 1982, we developed 32 ocean transportation lines, with over 60 operations monthly. The Chang Jiang Shipping Bureau made specific arrangements and rules for the river-sea through transportation of foreign trade import and export materials and actively organized concerned departments to launch this transportation undertaking. The harbors along the Chang Jiang handle 1.29 million tons of foreign trade import and export materials throughout the year. They not only effectively promoted the development of foreign trade of various concerned provinces and municipalities along the river, but also diverted the foreign trade materials of the coastal harbors, hence reducing the pressure of the coastal harbors.

5. New growth seen in China's water containerized traffic. In respect to international containerized traffic, in 1982, in addition to continuously consolidating and expanding the containerized traffic of the existing China-Australia, China-Japan and China-United States (West Coast) shipping lines, we newly developed the through container shipping line from China to the East Coast of the United States; the semicontainer shipping line from Shanghai to West Africa; the semicontainer shipping line from Shanghai and Huangpu Harbor to Western Europe as well as the semicontainer shipping line from Shanghai to the Persian Gulf. The total number of international standard containers (that is, 20 feet standard containers) shipped throughout the year was 24 percent over 1981. In respect to domestic containerized traffic, in 1982, we newly developed the container shipping line from Shanghai to Fuzhou, and began postal containerized traffic on the Shanghai to Qingdao shipping line. By the end of the year, the Guangzhou Sea Transportation Bureau and the Chang Jiang Shipping Bureau started a total of 12 container shipping lines. The state standard 5-ton containers and 2-ton containers shipped throughout the year were 103 percent and 180 percent over 1981, respectively. We also scored new achievements in the work of loading and unloading, and dispersing and shipping of containers in the harbors. In 1982, the number of international standard containers (that is, 20 feet standard containers) and state standard 5-ton containers and 2-ton containers handled by the harbors along the coast and along the Chang Jiang was 40 percent, 90 percent and 170 percent over 1981, respectively. The proportion of the capacity of handling containerized goods fulfilled by the five large foreign trade harbors of Dalian, Tianjin, Qingdao, Shanghai and Huangpu in the gross import-export volume of foreign trade miscellaneous goods was

somewhat higher than that of 1981. The development of containerized traffic business has played a positive role in the rational organization of transportation and in the raising of the quality of freight transportation and the efficiency in loading and unloading. For instance, Huangpu Harbor assisted the Hunan Provincial Native Products Co to ship full boxes of fireworks by rail to Huangpu Harbor for export, and saved 56 yuan for every cubic meter just in miscellaneous transfer fees in transportation. In loading and unloading containers, Zone 3 of Shanghai Harbor raised the efficiency of the regular method of operation by 2.9 times, and at the same time avoided errors caused by the mixing of goods, thereby raising the quality of freight transportation.

6. In respect to safety and quality in communications, the communications departments at various levels continued to implement the principle of "safety and quality first" and "comprehensive management with prevention as the key," and actively launched activities such as the "safety month" and "quality month." Safety in water communications took a marked turn for the better. In 1982, the rate of damaged goods, the rate of mistakes involving goods and the proportion of monetary compensation were all lower than the criteria published by the ministry.

In 1982, the primary situation of the various water transportation undertakings was as follows:

I. Inland Water Transportation

China has over 50,000 large and small rivers and over 900 lakes, which are superior natural factors for developiong water transportation. In 1982, the freight volume fulfilled by inland shipping throughout the country totaled 320 million tons, and the freight turnover fulfilled totaled 65 billion tons/km, showing 7.2 percent and 12 percent increase over 1981, respectively. The freight volume and freight turnover fulfilled by the Chang Jiang Shipping Bureau were 6.7 percent and 14.8 percent over 1981, respectively, registering the highest level in history.

In 1982, the shipping departments at various levels worked hard to improve the organization of transportation, vigorously developed through transportation from the main and branch routes, reduced the number of transfer links, attained smooth flow of goods and raised transportation efficiency and economic results. The shipping departments of the six provinces and one municipality along the Chang Jiang convened a shipping cooperative conference twice a year. They organized through transportation for the main lines and from the main to the branch lines and coordinated transport with transfers, emphasized properly such links as the source of goods, transportation capacity and loading and unloading, and worked hard to attain the goal of "coordination for through transport all the way; all-round service, responsibility for the entire journey; swiftness and convenience, and benefit in many ways." In 1982, there were over 30 fleets which went between Hubei Province and such places as Shanghai and Jiangsu, with a checked and ratified loading capacity of 20,000 tons. Since the latter half of 1980, the Hunan Provincial Shipping Bureau started river-to-sea through transportation. By the end of 1982, the

river-to-sea main-to-branch through transport push tow trains developed to some 30,000 tons. In 1982, the main-to-branch through shipping line from Hunan to Shanghai fulfilled a freight volume of 335,000 tons and a freight turnover of 471 million tons/km, with an income of 86.44 billion yuan from business transportation.

In order to vitalize the Chang Jiang water transportation, the Chang Jiang Shipping Bureau, a large-scale core enterprise of China's inland shipping, threw convention and old staff to the winds, changed its business style and actively served local shipping. For instance, since 1981, while guaranteeing transportation by ships and boats within the plan, Yichang Harbor adopted diverse forms and took the initiative to serve local ships and boats, solicited local ships to embark at the harbor and offered convenience to local ships and boats in such aspects as loading and unloading, storage and short-distance transportation. At the same time, it also acted as go-between and actively organized the idle ships in society to take part in transportation along the Chang Jiang, and scored relatively good economic results. The reform in business by Yichang Harbor not only enabled the local shipping enterprises to develop but also vitalized production in Yichang Harbor. At present, every year, Yichang Harbor is able to attract 20,000 tons of transportation capacity from the localities. The loading and unloading of cargo from local ships at the harbor increased from 4,800 tons in 1981 to 13,000 tons in 1982, an increase by 26 times. In 1981, Yichang Harbor went from suffering a planned deficit of 250,000 yuan to obtaining a profit of 80,000 tons. In 1982, it obtained a profit of 1 million yuan.

The various forms of economic system of responsibility with the system of contracting responsibility as the key developed still further. In 1982, the state-run and collective inland shipping enterprises popularly implemented various forms of economic system of responsibility and gradually changed the condition of "eating out of the same big pot." The shipping enterprises directly under the jurisdiction of Anhui Province suffered losses for years on end before 1980. After implementing the system of responsibility in business results in 1981, they went from suffering losses to making profits that same year. In 1982, they made a total profit of 809,000 yuan, 7.6 times over 1981. The profits delivered to the state increased by a wide margin. The state-run shipping enterprises in Guangdong Province implemented such economic systems of responsibility as profit-contracting and surplus income sharing, thereby mobilizing the enthusiasm in production of the staff members and workers. In 1982, the state-run shipping enterprises throughout the province realized a profit of 55 million yuan, 38 percent over 1981.

We scored new achievements in technological transformation in shipbuilding. The inland shipping departments of various provinces, municipalities and autonomous regions vigorously developed steel ships which gradually replaced wooden boats. The majority of regions no longer developed cement ships. The technological condition involving ships was markedly raised. Currently, most of the inland ships and boats are motorized and have tugging capacity. The Chang Jiang Shipping Bureau set up a large-scale push tow train. The Wuhan Shipping Transportation Co is a collective enterprise. Originally, wooden boats constituted 91 percent of the total number of ships. From 1979 to 1982, the company underwent technological transformation and increased its steel

ships. The proportion of steel ships rose to 95 percent. The annual ship tonnage went from 8,000 tons/km to 19,000 tons/km. The oil-consumption of 1,000 tons/km went from 19 kg to 10 kg, and the cost of 1,000 tons/km went from 34 yuan to 17 yuan.

The inland shipping tourist business has developed swiftly. In 1982, we received over 22,000 people including self-sponsored foreign travelers and overseas Chinese and compatriots from Hong Kong and Macao, an increase of 37.5 percent over 1981. We collected 4.9 million yuan in service charges and chartered tourist ships, an increase of 48.7 percent over 1981. We created $1 million in foreign exchange, an increase of 35 percent over 1981.

II. Coastal Transportation

In 1982, we scored relatively good results in coastal transportation and harbor loading and unloading throughout the country. The freight volume and freight turnover in coastal transportation throughout the country increased 8.16 percent and 12.2 percent, respectively, over the preceding year. The passenger volume and passenger turnover in coastal transportation increased 7.3 percent and 6.5 percent, respectively, over the preceding year. The coastal harbor handling capacity increased 8.4 percent over the preceding year.

In 1982, the phenomenon of holding up ships and holding up cargo took a turn for the better compared to preceding years. In making arrangements for the year's plans, the various units paid attention to bringing the role of small harbors and local harbors into play in order to reduce the pressure of the several major foreign trade harbors along the coast. Such medium-sized and small harbors as Yantai, Shantou, Haikou, Ningbo, Nantong and Nanjing handled a total of 3.24 million tons in foreign trade for the entire year, showing 83 percent increase over 1981. Since July 1982, as a result of the arrival of foreign ships at the harbors in an intensive manner, the phenomenon of holding up ships and cargo took place in several harbors. However, the Ministry of Communications adopted measures without delay and joined the State Economic Commission and the Ministry of Railways in issuing an urgent notice on making a concentrated effort in dredging the harbors. With the active cooperation of the various provinces and municipalities along the coast, forces were organized to make a concentrated effort in dredging the harbors, thereby very swiftly changing the situation of holding up ships and cargo in the harbors.

In 1982, we scored relatively good results in the technological transformation of coastal harbors. The coastal harbors completed 71 technological transformation projects for the entire year, with a newly-increased annual loading and unloading capacity of over 4.5 million tons. The second-stage coal pier transformation project in Qinhuangdao brought about a newly-increased loading and unloading capacity of 2 million tons.

III. Ocean Transportation

In 1982, we made new developments in our country's ocean transportation business. Compared to 1981, the passenger volume increased by 51.1 percent, passenger turnover increased by 30 percent, freight volume increased by 1.6 percent and freight turnover increased by 3.4 percent.

Currently, the major enterprise in our country that handles international shipping business--the China Ocean Transportation General Co--owns a fleet that includes different types of ships such as miscellaneous cargo ships, tankers, containerized ships, bulk freighters and roller-loading ships. In order to gradually realize the modernization of ships, in recent years, the company also ordered a number of new-style ships of all types such as full containerized ships, finished-product tankers and multipurpose ships at home and abroad. In 1982, over 30 new ships entered into business transportation.

In 1982, the China Ocean Transportation General Co operated a new semicontainerized liner from China to the Persian Gulf. It also further consolidated and strengthened the existing containerized or semicontainerized lines from China to Europe, China to West Africa, and China to Australia and New Zealand. Up till the present, it successively opened up 15 containerized or semicontainerized lines. In 1982, it shipped 66,758 containers of all types, 4.4 percent more than 1981. At present, the routes of the ships under the company reach 450 harbors in over 100 countries and regions of the world.

In 1982, the China Ocean Transportation General Co actively expanded international exchange and further developed international cooperative business. Currently, the company set up shipping representative offices in 11 countries and regions including England, Holland, the United States, West Germany and Japan, and maintained widespread business relationships with many foreign organizations.

In order to improve the conditions of the shipping business, the China Ocean Transportation General Co for a long time devoted itself to raising the business and technological levels of its crew. In 1982, the company adopted various methods to organize its crew to undergo training apart from production as well as on-the-job training with fine results. The 7,330 members of the crew who underwent training constituted one-fifth of the entire crew. At the same time, 1,500 people were sent to Western Europe, Japan and other countries and zones to work on oceanliners operated by foreign shipping companies.

Our country's international sea transportation shipping agent business was run in a unified manner by the China Foreign Liners Agent Co. With the continuous expansion of foreign trade in various provinces, municipalities and autonomous regions, the China Foreign Liners Agent Co increased its branch organizations from 17 in 1980 to 30 in 1982. A total of 21,300 ships were handled throughout the year, an increase of 13 percent over 1981.

In 1982, our country made new progress in the local ocean transportation cause. New growth was registered in the foreign ocean transportation business operated by the provinces and municipalities. The local commercial fleets mainly handled business of the short-distance ocean lines to Japan, Southeast Asia, Hong Kong and Macao. Presently, the sea transportation departments of such provinces and regions as Jiangsu, Zhejiang and Jiangxi set up joint enterprises with the China Ocean Transportation General Co. The ships under the local ocean transportation companies are a component part of our country's ocean fleet. Their establishment and development helped the

timely transportation procedures, reduced transportation links, lowered incidents of damage and waste of goods, and played an active role in vitalizing the economy and promoting the development of foreign trade.

IV. Water Transportation Industry

In 1982, we underwent a relatively large-scale reform of our country's water transportation industrial system, putting some shipbuilding factories of the communications system under the leadership of the China Shipping Industrial General Co. Most of the water transportation industrial units which are presently directly under the Ministry of Communications are distributed along the Chang Jiang and are primarily responsible for the task of repairing medium-sized and small ships. In 1982, the water transportation industrial units of the communications system throughout the country fulfilled a gross output value of 890 million yuan, with the building of over 8,000 ships and the repair of over 21,000 ships.

The water transportation industrial units scored new achievements in rectifying the enterprises, strengthening business management and adopting new techniques, new technology and new materials. For instance, the Chaohu Ship Yard in Anhui Province conscientiously did a good job of fixed quota for fixed number of staff members, implemented contracting in joint production and strengthened the enterprise's business management, thus obtaining relatively good results. In 1982, it fulfilled its production tasks in an all-round manner some 80 days ahead of schedule, with an output value of 2,839,000 yuan, an increase of 48.5 percent over 1981. It increased its output of major products by 40.7 percent over 1981; attained 100 percent Class 1 and 2 product quality rate; delivered 99,000 yuan in taxes and profits to the state, and realized 50,000 yuan in profits. It went from losses to profits overnight. Or for instance, the Jinling Ship Yard built a 2,000 ton push tow vessel, changing the ship's streamlined body to a square box-style body with a sled-like prow and a square stern, thickening the shell plating, reducing and simplifying the vertical component parts, changing the connection of steel plates from butt welding to lap welding, and changing the interlacing of the frame from open-pore grooving to stitch welding, thereby raising the efficiency in welding by 3 to 5 times. Again, for instance, the Dongfeng Ship Yard substituted the pouring of babbitt metal with the nylon molding in ship repairs, saving the original expenses by more than 85 percent and reducing the original length of work time by 75 percent. In addition, it scored fine results in such aspects as plating and repairing cam shafts, and utilizing surface carburization and quenching to length the life-spain of the parts.

V. Harbor Construction

In 1982, the harbors directly under the Ministry of Communications fulfilled an investment of 776 million yuan in harbor construction, showing an increase of 61.3 percent over 1981. There were 12 large-scale and medium-sized projects, fulfilling an investment of 590 million yuan and overfulfilling the year's plan. The image progress of various construction projects also reached or surpassed the demands of the plan. In 1982, three deepwater berths were built. By the end of 1982, there were a total of 147 deepwater berths in the harbors along the coast and the Chang Jiang.

The construction of the Beichang 100,000-ton Mineral Ore Transfer Station of Ningbo Harbor was begun in the beginning of 1978. After 5 years or urgent construction, by the end of 1982, construction was completed, checked and approved. The principal part of the project was composed of a 100,000-ton mineral ore unloading berth, two 25,000-ton mineral ore loading berths and one 1,000-meter bridge approach, with an annual loading and unloading capacity of 20 million tons and a mineral ore loading and unloading efficiency of 4,200 tons per hour. In the rear of the pier, there was a 76,000 square meter mineral ore piling ground which could store 500,000 tons of 10 different specifications of mineral ores at any one time. The loading and unloading technology was also of relatively high standard of automation in our country at present. The entire project was checked, approved and assessed upon completion. The design and construction of the entire project were outstanding, the speed of construction was fast, and the investment and material consumption were both controlled within the budgetary estimate, and there was even surplus as a result of economizing. At present, in giving play to the results of investment in capital construction, Ningbo Harbor has utilized in a comprehensive manner the Beichang Mineral Ore Transfer Pier, which has a present capacity of filling and packing 400,000 tons of bulk chemical fertilizers. On 1 July 1982, the second stage transformation project of the No 8 Coal Pier of Qinhuangdao Harbor was completed and entered into production. This increased its original annual traffic capacity by 2 million tons. The Jiujiang Phosphorus Pier and the Badong Harbor Miscellaneous Goods Pier of the Chang Jiang Shipping Bureau were completed and entered into production respectively in October and November 1982.

In 1982, we scored new achievements in navigational construction and the building of navigational lines. The navigational construction departments completed construction and safety work volume amounting to 340 million yuan, the highest level in history. The navigational departments completed some 59 million square meters of dredging projects, among which the dredging project involving capital construction increased by 35.7 percent over 1981. They fulfilled the task of maintaining navigational lines in a better manner.

VI. The Building of the Beijing-Hangzhou Canal

The harnessing work of the Beijing-Hangzhou Canal is a key project in the country and is related to the overall situation of energy and communications construction. The proper harnessing of the canal is favorable to transferring coal from the north to the south and sending water from the south to the north, and is favorable to the building and development of coastal cities and towns.

In 1982, in harnessing the Beijing-Hangzhou Canal, we primarily carried out the project to remove the middle embankment of the inland course of the canal (the section from Huaian to Baoying). The soil quality of this section of the project was complex, with many hidden bricks left over by history. In light of this situation, through repeated study, we adopted a program of cutting off navigation one time and manual digging. The Jiangsu Provincial People's Government regarded this project as the first battle throughout the province to realize the strategic key tasks involving agriculture, energy and

communications. The entire province mobilized 240,000 people to begin building the dam in July 1982. By the end of October, the navigation line was cut off. By November, construction was launched throughout the line. By the end of December, in 36 days, 10.76 million square meters of earthwork were completed according to the demand of the design. The width, depth and degree of the bend of the navigation line all reached the Class 2 technological criteria for navigational lines, thus providing good conditions for shipping.

VII. Rescue and Salvage

Through the effort of the entire body of staff members and workers of the rescue front, relatively good results were scored in rescue work in 1982. We fulfilled a total of 7,956 rescue orders and rescued 36 ships throughout the year. We rescued six foreign ships: Japan's "Fukushin Maru" and "Tokuyo Maru," Panama's "New Sea No 13" and "(Ah Shan Na) No 3," Singapore's "New Dragon," and a Thai fishing boat; and rescued 30 domestic ships. We salvaged 15 sunken shps throughout the year, and fulfilled the salvage of the latter-stage project of the "Bo Hai No 2" platform. We towed 123 ships throughout the year, including the towing of 12 larger ships. At the same time, we contracted the ocean construction and service projects of the well-drilling platform of the Ministry of Geology.

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DOMESTIC COMMERCE: CHINA'S GRAIN DISTRIBUTION AND MANAGEMENT

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 126-IV 127

[Article by Liang Ji [4731 4764]]

[Text] While adhering to a program of taking the planned economy as the key link, market regulation being supplementary, and while adhering to a policy of centralized procurement and centralized marketing, two substantial restructurings of China's grain distribution and management were carried out with marked success.

1. Institution of Contracting of Sole Responsibility for Task Completion in State Procurement, Sales and Allocation of Grain

In order to meet the needs of various forms of rural production responsibility systems centering around contracting linked to output, and in order to carry out a policy of "positively no relaxation of grain production while actively developing economic diversification," making sensible readjustments of agricultural patterns, making better use of the enthusiasm of central and local grain departments, doing a good job in distributing and balancing grain, and vitalizing dealings in grain, the State Council decided that beginning with the 1982 grain year, i.e., from April 1982 to March 1983, a method of contracting sole responsibility for task completion in state grain procurement, sales and allocations would be instituted and guaranteed to continue for 3 years without change in all provinces, municipalities and autonomous regions (with the exception of Xinjiang and Xizang). This method provided that figures used in the contracting of sole responsibility for grain task completion would be based on the actual situation existing during the past several years in combination with future development of grain production and changes in state procurement and sales as decided through consultation. Once the various figures for assumption of sole responsibility for grain procurement (including excess procurement), sales, out-shipments and in-shipments were set, no readjustments would be made for 3 years from 1982 through 1984. During the period of contracting of sole responsibility, greater state procurement and less marketing of grain by provinces, municipalities and autonomous regions would be locally controlled and stored so that places with a surplus could supply shortage areas. Should new grain deficits result from natural calamities or other causes, local governments would take action to solve them. In years of major

natural disasters genuinely requiring state intervention and supply of grain, the grain would be paid back to the state subsequently. Figures to be used in allotting sole responsibility for task completion could be adjusted at the median for bumper and lean harvest years; however, the figures would be figured for a 3-year period and total out-shipments would be fulfilled in accordance with the figures while in-shipments should not exceed total figures. It was also ruled that once sole responsibility for grain was assumed, grain control methods used by the central government and by provinces, municipalities and autonomous regions would be instituted; nevertheless, grain programs and policies set by the CPC Central Committee and the State Council would be conscientiously carried out by all jurisdictions.

Once the central government instituted contracting of sole responsibility for grain with provinces, municipalities and autonomous regions, the state could also institute the contracting of sole responsibility for grain procurement and excess procurement quotas with production teams guaranteed to remain in force for 3 years. Once production teams, peasant teams, or households fulfilled procurement and excess procurement quotas, they would have authority to dispose of all excess grain as they saw fit. Grain departments would take positive action to bring about procurement and sales at negotiated prices, to distribute grain from areas of surplus to areas of shortage, to vitalize markets, to hold down grain prices, and to make procurement at negotiated prices a supplementary channel for state control of grain sources of supply. The state would also be able to institute contracting of sole responsibility for the growing of cotton, sugar crops and vegetables as well as operations of fisheries, saltmaking, forestry and animal husbandry industries according to plan, with sales of products to the state or to consistently grain-short production teams in accordance with plan, this method to remain in force without change for 3 years.

During the past year, all provinces, municipalities and autonomous regions conscientiously implemented the method of contracting sole responsibility for grain on the basis of the State Council approval, and implementation has been done well.

Implementation of contracting sole responsibility for grain was generally linked to general promotion of various forms of production responsibility systems, notably contracting linked to output. Fixed procurement quotas for grain surplus production brigades and production teams and fixed sale targets for grain-short production brigades and teams were implemented simultaneous with the signing of contracts with production teams, peasant teams, and households guaranteed without change for 3 years. Thus, state grain procurement and excess procurement quotas have a dependable foundation. The 1982 bumper harvest plus institution of contracting sole responsibility for grain aroused the enthusiasm of peasants and of government at all levels. Except for individual provinces where natural disasters prevented their fulfillment, all state grain procurement quotas were fulfilled or overfulfilled.

In the sale of grain, once rural villages instituted contract responsibility systems linked to output and liberalized economic policies, numerous formerly grain-short villages now were able to solve their food problems by themselves.

Thus, in years of normal harvests, they needed virtually no further state-supplied grain. In view of this new situation, all jurisdictions revised their rural grain-supply methods, both guaranteeing normal supplies of grain for the daily lives of the people and for all other grain needs, and somewhat reducing inequitable sales. Statistics show that between April 1982 and February 1983, state grain sales of grain rations to rural villages throughout the country were 770,000-odd tons less than during the same period in 1981. At the same time, reward sales of grain for procurement of agricultural sideline products also were reorganized, with inequitable reward sales being abolished and overly high reward sales standards being lowered. Most important changes were as follows: where grain was no longer required as a bonus, such as for fattened hogs, no grain bonus would be given and there would be no barter procurement. Either no grain bonuses or smaller grain bonuses would be offered for goods whose production should be restricted, such as rapeseed, flue-cured tobacco, and various kinds of hemp fibers. For products not directly related to grain, award sales of grain would not be made, or there would be no barter trade using grain. In no case would reward sales of grain be made for products bought or sold at negotiated prices. No further reward sales of grain would be made for bran bought from commune members. These actions played an active role in guiding production, while reducing expenditures of reward sale grain at the same time. As a result of tightening management following contracting of responsibility for grain, during 1982 most provinces, municipalities and autonomous regions showed a surplus in their grain sales indices.

In financial management terms, institution of the method of contracting sole responsibility for grain is to follow the principle of valuing grain as money, the applicable financial indices of grain enterprises being contracted to provinces, municipalities and autonomous regions along with grain procurement, sales and allocation quotas, while additionally hitching local finances to results of operations in a "compartmented" financial system. Such a restructuring whereby each level of government pays more attention to grain work and to results from enterprise operations, and supervises and urges along grain departments in diligent implementation of policies both results in close attention to grain procurement, sales and allocations, and in close attention to financial management. It links the carrying out of policies and fulfillment of quotas to improvement of enterprises' economic effectiveness, and makes a start in reversing the former situation of "reporting greater procurement upward, asking higher authority to buy when there is more to sell, having the state guarantee losses and asking for help at will." During 1982, state dealings in grain and oil rose 7 percent over 1981, but subsidization of oil and grain dealings increased by only 5.5 percent including a 25.6 percent increase over 1981 in grain and oil industry, transportation and negotiated price profits.

2. Dealings Through Numerous Channels Following Fulfillment of State Monopoly Grain Procurement

Rural village institution of contract responsibility systems linked to output and promotion of various economic policies gave impetus to a transformation of the country's self-sufficient and semiself-sufficient agricultural economy

to fairly large-scale commodity production. In particular, many specialized households and key households engaged in grain production began to appear, urgently necessitating an expansion of the circulation and exchange of grain. In order to meet these new circumstances, following State Council approval, dealings in numerous channels were carried out following fulfillment of centralized grain and oil procurement quotas beginning in 1983.

Institution of dealings through numerous channels requires adherence to a policy of taking the planned economy as the key link, market regulation being supplementary, adherence to a policy of monopoly procurement and monopoly sales, and adherence to the principles of concurrent benefits for the country, collectives and individuals, plus use of bumper harvests to make up for lean ones. State monopoly grain procurement quotas (including state procurement and excess procurement quotas for individual kinds of grain) is planning in the nature of a directive that must be assured fulfillment. This is an obligation to which peasants must bend every effort. All grain remaining after peasants have fulfilled state procurement and excess procurement quotas may be sold through various channels. Grain departments should actively develop purchases and sales at negotiated prices and participate in market regulation. Supply and marketing cooperatives and other rural cooperative business organizations may buy and sell in a flexible way; private peasants may enter cities to do business in grain, and after county procurement and excess procurement quotas have been fulfilled, grain may be shipped out of counties or provinces for sale elsewhere. This abolishes the former monopoly dealings in grain bought and sold at negotiated prices by grain departments alone. Regulation of the negotiated price for grain sold between one province and another must be approved by provincial grain departments (or bureaus) and limitations on the amount of grain that may be sold must be carried along or mailed.

After multichannel dealings in grain are implemented, except for state plan supplies, industries using grain as raw materials (except for makers of alcoholic beverages) may themselves buy some processed grain products for sale. Government organizations, the armed forces, official organizations, schools, industrial and mining enterprises, and institutions may also buy the grain they need for food, but they may not transport it for sale. The foregoing organizations require no further approval to purchase grain.

State-owned grain businesses are the main channel for multichannel dealings in grain. They should use procurement at negotiated prices to get hold of some commodity grain, and strive to use it to carry out their responsibility for converting the purchase of grain at negotiated prices necessary to balance planned state receipts and expenditures into grain offered at parity prices. They should adjust dealings to fit the market, raising and lowering prices and basing prices paid on quality. In order to insure production of major kinds of grain, grain departments should purchase wheat, paddy rice and corn at negotiated prices. Whenever quality meets national quality standards, the negotiated procurement price should be no less than the excess procurement price.

Once multiple channels for dealing in grain are established, the stage is set for rural grain sales. In order to reduce state grain sales at parity prices,

grain used by many customers may be supplied through multiple channels. Some may change to loan sales and some may change to sales at negotiated prices. As various kinds of specialized households develop, particularly households specializing in raising livestock, needs for grain and fodder will steadily grow, and multiple channels will have to be used to provide it.

Once state grain and oil monopoly procurement quotas are fulfilled, dealings through multiple channels become a major reform in grain work. Not only do they advance development of agricultural production and vitalize urban and rural markets, they also overcome a bureaucratic business workstyle by grain departments, improve administration and management, improve economic effectiveness, and function to provide impetus. State procurement of grain at negotiated prices increased. It increased 86.7 percent during the period January to March 1982 as compared with the same period in 1981. Quantities of grain in country fair markets increased and prices basically stabilized. Statistics from 197 markets show that as compared with the same period in 1981 prices during the last 10 days of March 1982 fell 1.05, 3.23 and 8.37 percent, respectively, for rice, wheat and soybeans, and rose slightly for corn and dried sweet potatoes. The balancing out of grain between one area and another and between city and countryside also increased.

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CHINA'S GRAIN AND EDIBLE OIL INDUSTRY

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 127-IV 128

[Article by Chen Bingjun [7115 3521 6874] and Jiang Xiluan [5592 6932 2940]]

[Text] During 1982, China's grain and edible-oil industry continued to carry out a program of "readjusting, restructuring, consolidating and improving" in an effort to upgrade production technology and improve administration and management, scoring marked results.

1. Further Development of Production To Win Better Economic Effectiveness

In 1982, gross output value of state-owned grain and edible-oil industrial enterprises throughout the country stood at 19.93 billion yuan, up 7.7 percent from 1981 for a net output value of 1.53 billion yuan, up 12.5 percent over 1981. Output of wheat flour was 24,199,000 tons, up 3.6 percent from 1981; output of husked rice was 18,311,000 tons, 2.9 percent more than in 1981; output of processed miscellaneous grains other than wheat and rice was 32.65 million tons, up 4.8 percent from 1981; output of edible vegetable oil was 21.29 million tons, up 23.8 percent from 1981; output of grain and oil food products was 1.46 million tons, up 4.4 percent from 1981; output of machine manufactured livestock feed was 5.32 million tons, up 20.9 percent from 1981; and output of machine-processed grain and edible oil was 73,000 tons, up 9.1 percent from 1981.

During 1982, the labor productivity rate in independent accounting grain and oil industrial enterprises was 38,158 yuan per person, up 3.8 percent from 1981; and gross profits were 925.71 million yuan, up 21.6 percent from 1981. Profits were 27.25 yuan per 100 yuan of investment in fixed assets, up 9 percent from 1981. Profits averaged 1,928 yuan per staff member and worker, up 16.7 percent from 1981.

During 1982, gross output value of seven grain machinery plants fulfilled plan by 111.7 percent, up 26.4 percent from 1981. Product output fulfilled plan by 111.62 percent, up 21.7 percent from 1981. The labor productivity rate rose 24.9 percent over 1981; comparable gross cost of producing products declined 5.47 percent; and gross profits were in 129.77 percent fulfillment of plan, up 43.57 percent from 1981.

2. Increase in Kinds of Products, Improvement of Quality and Expansion of Exports

In the realm of grain and oil processing, various grades of husked rice, wheat flour and edible vegetable oils were produced. Superfine flour, special flour, and top-grade bleached flour outputs were 39.3 percent higher than in 1981. Output of refined edible vegetable oils was 55.6 greater than in 1981. More than 400 individual rice-milling, flour-grinding, oil-pressing, food-processing, and livestock-feed-processing machines, as well as machines used in the selling of grain and oil and in storing it, plus parts and complete assemblies were produced.

Trial manufacture of new products intensified. New products successfully trial manufactured during 1982 included LF.24 combination flour-milling equipment, the FZ.30 round vibrating sifter, the QFD.50 x 2 x 2 flour strainer, the BkD. 50 x 50 peanut-shelling machine, the FJy.50 x 1 round peanut-grading screen, the BkL centrifugal tea-seed skin-removing machine, tea-seed crushers, the ZX.10 oil-pressing machine, and the 1-3 ton livestock-feed-processing unit. These new products performed very well technically and were highly effective in production. Users liked them very much. All jurisdictions also researched and test manufactured husking machines, vibrating unloading devices, pounding machines, round sifters, highly efficient flat strainers, automatic electronic wheat-flour scales, and complete equipment for making instant noodles. Some places produced prototypes, which they installed and are trying out.

In recent years grain and edible oil industrial enterprises strengthened quality control for further upgrading product quality. In 1981, the ministry evaluated 13 products as being of superior quality, and 5 products as being of "reliable quality," following up in 1982 with a superior evaluation of the My.8 hydraulic flour-milling machine produced by the Wuxi Grain Machinery Plant and the LG.355T black plastic rice-husking rollers produced by the Baoying Grain Machine Plastic Roller Plant in Jiangsu Province. A "reliable quality" rating was assigned to Bingdeng brand standard vermicelli produced by the Daoli Vermicelli Plant in Harbin, to prime-grade soybean oil produced by the Harbin Baqu Oil Plant, and to the Biaoer xian rice produced by the Gaohe Rice Plant in Huaining, Anhui Province.

During 1982, the grain sector of various provinces, municipalities and autonomous regions exported 18 percent more grain and oil machinery than in 1981. They also exported husked rice, rapeseed oil, peanut oil, rice bran oil, castor oil, cocoa oil, cocoa, phosphatide, inositol, oleic acid, glutamic acid, citric acid, lipase and livestock feed protein.

3. Fairly Rapid Development of Grain and Oil Food Industries

In 1982 the number of food plants in grain departments grew to more than 400, and an additional more than 4,000 food workshops were set up in grain- and oil-processing plants everywhere. Annual output was 941,000 tons of vermicelli, 42,000 tons of cut noodles, 67,000 tons of biscuits, 62,000 tons of dry rice noodles, 31,000 tons of bread and 14,000 tons of bean products, plus more than 40 different kinds of quick noodles, vegetable protein, alcoholic

beverages and nonalcoholic drinks, all of which increased over 1981 in varying degrees. All jurisdictions also further developed multiple uses for byproducts of the processing of grain and oil to produce more than 10 pharmaceutical and chemical products, which played a definite role in vitalizing markets and enriching the lives of the people.

In some cities and towns, dealings in grain and oil products were done at both parity prices and negotiated prices, and one could make purchases either by using grain coupons or by exchanging grain for them. Attention was given to both common food products and to specialty food products sold both at home and abroad, and to traditional food items and high- and medium-quality food items as people's daily lives required, for a burgeoning of production.

4. Initial Results From Reorganization of Enterprises

During 1982, the grain and oil industry carried out a comprehensive reorganization at key points in a planned way. Statistics show the first group of grain and oil industrial enterprises to have been reorganized as having been 17.57 percent of independently accounting enterprises. Following reorganization in Hebei, Jilin, Shandong, Jiangsu, Hubei, Sichuan and Gansu Provinces, 78 enterprises were examined and accepted as being up to standards. This was 13.6 percent of the number of grain and oil industrial enterprises reorganized in those seven provinces.

Simultaneous with the reorganization of enterprises was continued readjustment of the organizational structure and the product structure of grain and edible oil industries. During 1982, 149 grain and oil industrial enterprises not needed in production were merged, retooled, closed or suspended, supply, production, and sales being better linked as a result. Some rice-milling machinery, flour-milling machinery and storage machinery plants carried out a preliminary reorganization and consolidation in accordance with the principles of specialized cooperation and good economic sense so as to use complete production facilities. As a result of the increase in the amount of production of wheat flour and edible vegetable oil, both the wheat-flour industry and the oil-pressing industry correspondingly increased production capacity. For the most part, these industries increased production by making technical improvements for an expansion of reproduction that relied mostly on intensive rather than extensive measures.

5. Promotion of Allocation in Return for Payment Dealings and Institution of Economic Responsibility Systems

In recent years, following marked successes in Shanghai with dealings whereby allocations are made in return for payment in grain and oil processing, the number of grain and oil industrial enterprises in all provinces, municipalities and autonomous regions promoting such dealings has become ever larger. Among independently accounting grain- and oil-processing enterprises, about one-third instituted allocation in return for payment during 1982. Practice has shown that a change from grain and oil consignment for processing to allocation in return for payment pretty well solves the problem of "eating out of a large common pot" among grain and oil industrial and business enterprises,

and helps advance improvements in administration and management of industrial and commercial enterprises. After many enterprises instituted allocation in return for payment, both product quality and output rates of grain- and oil-processing plants improved, and grain and oil commercial enterprises reduced the number of turnover links and saved on transportation expenses. In addition, basic tasks such as weighing, inspection of quality and quota control in industrial and commercial enterprises was improved, greater economic benefits accruing to both industry and business.

6. Improvement in Methods Whereby Grain and Oil Machinery Industries Plan Production and Distribute Products

In September 1982, the Grain and Oil Industry Bureau of the Ministry of Commerce convened a national conference on ordering grain and oil machinery, laying out production, and planning materials needed. This conference adopted the method of first placing orders for machinery, then laying out production and planning materials needed, for better reflection of the principle of organizing production in terms of society's needs. This closely linked together production, marketing and supply of materials for grain machinery production. Following full discussion and all-round balancing, this conference distributed grain and oil machinery under the jurisdiction of the Ministry of Commerce in 1983, and signed goods supply contracts with both those providing supplies and requiring products. For grain and oil machinery products distributed by grain departments and bureaus in individual provinces, municipalities and autonomous regions, grain departments and bureaus in individual provinces, municipalities and autonomous regions arranged for the signing of contracts with suppliers and buyers. In addition to products distributed by the ministry and provinces, all grain and oil machinery products were to be marketed by enterprises themselves, with planning of the kinds and specifications of products being done on the basis of customer requirements.

By way of standardizing, systematizing and popularizing grain- and oil-processing machinery, in recent years, planned, step-by-step selection of models was done. Selection of models of flour-grinding and rice-milling machinery was substantially completed for 1982, but further improvements are still required. Preliminary selection of oil-extraction equipment was done, and production checks are now underway.

7. Further Efforts To Conserve Energy

Statistics show that during 1982 state-owned grain and oil industrial enterprises throughout the country saved 10.04 million kW of electricity, 107,000 tons of coal, 792 tons of fuel oil and 97 tons of coke in production.

Overall, 1982 was a year in which the grain and oil industry continued to make progress in carrying out the "eight character" policy. Work developed unevenly, however, and this was manifested mainly in very great differences in numerous economic and technical indices, between one region and another, and between one enterprise and another. Provincial, municipal and autonomous region statistics show the labor productivity rate for all personnel in the grain and oil industry to be a maximum of 63,027 yuan per person and a minimum

of 24,692 yuan per person, a more than 100 percent difference. Maximum profits were 91.37 yuan per 100 yuan invested in fixed assets; and minimum profits were 9.6 yuan per 100 yuan invested in fixed assets, a more than eightfold difference. Profits were as high as 8,273 yuan, or as low as 658 yuan per staff member and worker, a more than 11-fold difference. This shows that a very great potential still exists for increasing economic effectiveness in the grain and edible oil industry.

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NEW CHANGES IN CHINA'S COUNTRY FAIR TRADE

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 128-IV 129

[Article by Yan Jingye [7346 2529 2814], State Industrial and Commercial Administration]

[Text] The promotion in recent years of rural contract responsibility systems linked to output and of various economic policies gave impetus to the transformation of agriculture from a self-sufficient or semiself-sufficient economy to large-scale commodity production, and from traditional agriculture to modern agriculture. These two transformations, plus the gradual liberalization of policies for the control of country fair trade brought about a further burgeoning of urban and rural country market trade plus profound changes that were manifested increasingly in exchanges of goods between cities and the countryside, advances in the development of production, convenience to the public, and supplementing shortages in state-owned businesses.

As of the end of 1982, there were 44,775 city and rural country fairs in the country, 1,762 more than in 1981. Both kinds and amounts of goods coming to market increased, with the volume of transactions reaching 32.8 billion yuan, 4.1 billion yuan more than in 1981, a 14.3 percent increase. Converted to state-owned business list price terms, the volume of transactions amounted to 9.4 percent of retail sales of social goods. Volume of transactions at rural country fairs in grain, tobacco, various kinds of hemp, meat, poultry, eggs, aquatic products, dried and fresh fruits, straw used as fuel, small farm implements, draft animals, and domestic livestock increased by about 10 or more percent, and dealings in industrial wares increased 55 percent. During 1982, urban country fairs provided urban staff members and workers with non-staple foods averaging 45 yuan per capita, 7 yuan more than in 1981. Volume of transactions in vegetables rose from 9.78 percent of retail vegetable sales by state-owned businesses in 1981 to 16.6 percent in 1982. Retail sales of fresh eggs rose from 24.8 percent of state-owned business retail sales of fresh eggs in 1981 to 31 percent in 1982. Twenty-five percent of beef and 40 percent of poultry consumed by urban staff members and workers was provided by country fairs.

Profound changes took place in both the composition and form of urban and rural country fair trade, and these changes became more apparent during 1982.

1. A Change From Exchanges Between Haves and Have Nots Toward Greater Exchange of Commodities. In the past, trading activities in country fairs consisted largely of exchanges between peasants having a surplus and those having a shortage. Though such dealings still form a relatively large part of transactions, nevertheless those who provide commodities are no longer just producers who have enough for their own use plus a surplus. Instead, a substantial amount of commodity production comes from specialized households and key households. The amount of goods they have sent to markets increased over the years. A survey of the Toulong Street Market in Harbin City showed that since the beginning of winter in 1982, more than 80 percent of all hen's eggs in the markets came from specialized households. At the agricultural sideline products market in front of the station in Qiqihaer, between June and November 1982, 610,000 jin of fresh fruit came from outside the province, most of it brought in by specialized contracting households in producing areas. A survey of 18 country fairs in Zhejiang Province showed 50 percent of all products from key households and specialized households as being sold in country fairs. Specialized households in Qianshan County, Anhui Province that weave mats produce 4 million bamboo mats annually, 80 percent of which they sell in country fairs. In addition, commodities transported for sale were increased. Survey shows the ratio of commodities in markets that was transported for sale to be between 80 and 90 percent in large cities, between 70 and 80 percent in medium cities, between 50 and 60 percent in small cities, and between 20 and 30 percent in rural country fairs. In some urban country fairs in northeastern China, an overwhelming amount of the fresh fish, hen's eggs, small chickens, beef and mutton, mushrooms, edible tree fungus, edible day lilies and marine products are transported from elsewhere for sale. Not only has this traffic broken down area lines, it also demolished former policy regulations that permitted only the sale of goods carried by hand, on shoulder poles, on the human back, or on bicycles. Most goods are hauled by tractors, trucks, trains or motorized boats. Statistics from Hengyang City in Hunan Province show that 30 different kinds of goods sold in country fairs come from 48 counties in 13 provinces. Dangshan County in Anhui Province is a pear- and apple-growing area that produces more than 100 million jin annually. Much of the fruit rotted formerly when it was handled by the fruit company. During 1980 alone, losses ran to more than 100,000 yuan. When it was allowed to be transported for sale in 1982, it was hauled away and sold as soon as it was picked, virtually no losses resulting.

2. A Change From Mostly the Exchange of Agricultural and Sideline Products to All-round Commodity Exchange. Though the goods found in markets are still mostly agricultural and sideline products, the proportion of industrial wares and handicraft items is on the increase; sales of food and beverages and of services also increased gradually. In Hunan Province, there were 55 large markets for every 10,000 or more people in 1981, and 124 in 1982, or more than double the number. Kinds of goods sold rose from 240-odd to 390-odd, a 62 percent increase. This included a 1.5-fold increase in industrial goods. In the volume of transactions in rural country fair trade for the country as a whole, volume of transactions in industrial goods amounted to 80.6 million yuan in 1978, rising to more than 1,234,250,000 yuan in 1982, a 14-fold increase. Transactions in industrial goods as a ratio of all transactions in rural country fair trade gradually increased over the years. In 1978, such

transactions amounted to only 0.64 percent of the total, but in 1982, they represented 4.3 percent of the total, moving from last to seventh place among 15 major goods sold.

All kinds of specialized markets have also appeared in rural villages. Baoding Prefecture in Hebei Province, for example, has markets specializing in chemical fiber cloth, acrylic yarn, imitation leather, used farm machinery, old bearings, scrap steel and iron, and Chinese medicinal materials. In suburban Guangzhou, eight specialized agricultural and sideline product wholesale markets appeared, and in Chongqing, wholesale fruit markets appeared.

3. A Change in Numerous Rural Country Fairs From Markets for Exchange of Agricultural and Sideline Products at Certain Times Only to Regular Markets, Becoming Local Economic Centers. As a result of the development of rural commodity production and the rise of specialized and key households, and particularly as a result of the emergence of specialized households providing services at all stages of commodity production, and the growth of individual industrial and commercial households, some people left the land and agriculture to engage in selling products, procurement of raw materials, processing and providing services in markets where communications are fairly good, thus converting markets operating at only certain times into daily markets. State-owned businesses and supply and marketing cooperatives also began to transport industrial goods by truck into the countryside and to set up stands in these markets for the sale of goods. Economically diversified forms, diverse forms of doing business, and goods from diverse channels compete with each other and interact with each other in these markets for a vitalizing of the rural economy. This converted the normally cold and cheerless fixed-day markets into small cities and towns. Today, 6 of the more than 30 markets in Shaodong County, Hunan Province, applied for permission to set up a town organizational system. In Hebei Province, 85,000 people in 10,000 households in Li County are engaged in the dyeing, spinning, weaving, sewing, buying and selling of acrylic, turning out 1,500 tons of thread and more than 18 million sets of readymade clothing annually. Most of these goods are sold in the 4 fairly large markets in the county, which between 5,000 and 10,000 people patronize daily for the exchange of between 50,000 and 100,000 yuan worth of goods. Most products are sold to peddlers who come from Shandong, Sichuan, Hunan, Hubei, Shanghai, Zhejiang and Gansu. The Cishutuo Market in Liaozhong County, Shenyang City is the location of a commune which formerly ran markets mostly on certain days for buying and selling agricultural and sideline products. Today, it has become a daily market. Eighty percent of nearby peasant households are engaged in making clothing, and more than 3,000 stalls in the daily market sell clothing. More than 50 households provide services to the public through food and beverage shops, inns and processing and repair outlets. State-owned and supply and marketing cooperative business bring industrial goods for sale here in more than 40 vehicles and often in as many as 120 vehicles. The market is thriving, and both buying and selling is vigorous, making the market an economic, political and cultural center for surrounding villages.

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CHINA'S UTILIZATION OF FOREIGN CAPITAL

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 130-IV 131

[Article by Long Chucai [7893 2806 2088] of the Ministry of Foreign Economic Relations and Trade]

[Text] In 1982, our country again made further progress in the utilization of foreign capital over 1981. This was manifested in the following two aspects:

I. Increase in Loans. This year, the situation was fine in the utilization of long-term low-interest construction loans from foreign governments and from the IMF. Some new sources of loans were developed, the amount of loans increased and the establishment of loan items went very smoothly also.

In 1982, the Chinese government formally signed agreements with foreign governments and the IMF on loans used in construction amounting to some $1.2 billion. Of these, the loan agreements which were renewed included: The 135 billion yen (roughly some $500 million) with the Japan Overseas Economic Cooperation Fund, 95 billion yen of which was used in building the two harbors of Qinhuangdao and Shijiusuo and the two railroads from Beijing to Qinhuangdao and from Gunzhou to Shijiusuo, while 40 billion yen of which was commodity loans used in solving the problem of capital for the Daqing Petrochemical Project and the complementary facilities of the first stage project of the Baoshan Iron and Steel Works. The 42 billion yen (roughly $200 million) from the Export-Import Bank of Japan was used in the construction of seven coal mines, namely, the Baodian and Jiangzhuang mines in Shandong, the Xiqu, Malan, Zhenchengdi and Sitaigou mines in Shanxi, and the Qianjiaying mine in Hebei. The 300 million Belgian francs (roughly $10.5 million) from the Belgian government was used in purchasing facilities for the Yaomeng Power Plant in Henan. The $330 million from the World Bank was used in developing agricultural education and scientific research, in transforming the agriculture of the North China Plains, in building container piers in the three harbors of Shanghai, Tianjin and Huangpu and in industrial credit and loans. The 22.9 million SDR (that is, $25 million) from the International Agricultural Development Fund was used in developing agriculture in Hebei. The newly developed loans that were signed included: The 3,030 dinars (that is, $107 million) from the Kuwaiti government was used in building the Hunan Artificial Board Plant, the Ningguo Cement Factory in Anhui and the Xiamen International Airport. The

125 million Danish kroner (that is, $18 million) from the Danish government was used in building the Heilongjiang Dairy Products Factory, the Beijing Dairy Co (yogurt facilities), the New China Sugar Refinery in Jilin and the China Huasui Light-Quality Ceramsite Products Factory in Guangzhou. In addition, the Italian government promised, and initialed an agreement on, a loan of $148 million to be used in nine projects.

By the end of 1982, our government formally signed with the IMF construction loans agreements with a total sum of $2.83 billion for the construction of 31 projects. The specific situation of the loans from the formally signed agreements was as follows:

Government or organizations providing the loans	Monetary unit of loans	Loans signed in 1982	Cumulative loans for 1982	Annual interest rate (percent)	Period of repayment (years)	Period of extension (years)
Japan Overseas Economic Cooperation Fund	100 million yen	1,350	2,310	3	30	10
Project loans	" " "	950	1,510	3	30	10
Commodity loans	" " "	400	800	3	30	10
Export-Import Bank of Japan	" " "	420	2,436	6.25	9.5-12.5	
Kuwaiti government	10,000 dinars	3,030	3,030	1.5-3.5	18-20	3-5
Danish government	100 million kroner	1.25	1.25	Interest free	25	7
Belgian government	100 million francs	3	9	Interest free	30	10
The World Bank	$100 million	3,294	5,294			
International Development Association International	100 million SDR	1,498	2,312	Interest free	50	10
Revival and Development Association International	$100 million	1.64	2.64	Floating	20	5
Agricultural Development Fund	10,000 SDR	2,290	5,160	1-4	20-50	8.5-10

In 1982, roughly $400 million from the foreign exchange savings and buyer's credit and loans in the Bank of China was utilized, and some $200 million of foreign capital was borrowed (and repaid) by the localities and concerned departments themselves.

Through utilizing these loans, we will effectively promote the development of energy, the construction of harbors and railways, and the development of the construction materials industry, agriculture, animal husbandry and education and scientific research in our country, which will actively enhance the realization of the four modernizations.

II. Progress Was Made in Absorbing Direct Investment by Foreign Businessmen. In 1982, there were 20 new Chinese-foreign joint investment enterprises at home (including in the special zones), with some $24 million of investment by foreign businessmen. By the end of 1982, there was a total of 83 Chinese-foreign joint investment enterprises at home, with some $140 million of investment by foreign businessmen. The following table shows the grouping by country (region) of the investors:

Country (region) of investors	Total number of joint enterprises by the end of 1982		New joint enterprises founded in 1982	
	Number of enterprises	Amount of investment by foreign businessmen ($10,000)	Number of enterprises	Amount of investment by foreign businessmen ($10,000)
Hong Kong	55	6,233	14	841
United States	11	5,196	4	853
Japan	5	753		
Philippines	4	396		
France	1	20		
West Germany	1	35		
Switzerland	1	400		
Denmark	1	251		
Australia	1	23		
Thailand	1	27		
Norway	1	125	1	125
Sweden	1	600	1	600
Total	83	14,059	20	2,419

In 1982, there were roughly 110 new Chinese-foreign cooperative enterprises, with nearly $300 million of investment by foreign businessmen. By the end of 1982, there was a total of nearly 800 Chinese-foreign cooperative enterprises, with some $2.7 billion of investment by foreign businessmen.

In 1982, we signed agreements with Arco and the Santa Fe (Mining) Co, Ltd, of the United States on cooperative maritime petroleum exploitation in the Yinggehai Basin in the South China Sea, and drew in $170 million of foreign

capital. By the end of 1982, we signed a total of five agreements with foreign companies on cooperative maritime petroleum exploitation, and drew in a total of $1.06 billion of foreign capital.

In 1982, we signed 170 compensation trade contracts with foreign businessmen and imported $170 million worth of equipment. By the end of 1982, we signed a total of over 880 compensation trade contracts and imported $760 million worth of equipment.

Through establishing Chinese-foreign joint investment enterprises and Chinese-foreign cooperative enterprises, launching Chinese foreign cooperative maritime petroleum exploitation and developing compensation trade, we were able to utilize foreign capital to import foreign advanced technology and absorb foreign experiences in management. This, to a definite extent, raised the technological and management levels of our country's industrial and agricultural production and construction, increased our product variety, improved product quality and expanded the amount of foreign exchange created through export. This played a positive role in developing our country's national economy, in carrying out technological transformation of our medium-sized and small enterprises and in developing and utilizing our resources.

However, in light of the development over the past 2 years, direct investment by foreign businessmen did not increase rapidly enough. There were fewer new projects in 1982 than in the 2 preceding years. The number of newly-increased Chinese-foreign joint investment enterprises dropped in 1982: there were nine fewer than in 1981 and four fewer than in 1980. The number of newly-increased Chinese-foreign cooperative enterprises and compensation trade projects also dropped compared to the preceding 2 years. In order to draw in more direct investment by foreign businessmen, in 1982, the various concerned departments of the State Council did some work, the most prominent of which was in the following two respects: 1) Proposed and sponsored by UNIDO, the Ministry of Foreign Economic Relations and Trade held the China Investment Promotion Conference in Guangzhou in June. At the conference, 23 provinces and municipalities proposed 121 projects and held talks with foreign businessmen accordingly. Attending the conference upon invitation and participating in talks were 286 foreign and Hong Kong business enterprises and 450 people. Through negotiations by both parties, statements of intent on cooperation were signed involving 70 projects in such trades as light industry, foodstuff, textiles, chemical industry, metallurgical industry, electronic industry and forestry. After the conference, the concerned departments of various provinces and municipalities all emphasized the work of implementing the intended projects. 2) In order to solve the various problems in the policy and actual work relating to the Chinese-foreign joint investment enterprises, the State Economic Commission and the Ministry of Foreign Economic Relations and Trade organized joint investigation groups to conduct investigations and study in a broad and penetrating manner. After that, the State Council decided to further relax its policies on and adopt favorable measures toward the Chinese-foreign joint investment enterprises in such aspects as taxation, prices, the proportion of sales of products, import-export management and enterprise decision-making power.

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THE WORK OF THE CHINA COUNCIL FOR THE PROMOTION OF INTERNATIONAL TRADE IN 1982

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[Article by the China Council for the Promotion of International Trade]

[Text] In 1982, the China Council for the Promotion of International Trade [CCPIT] fulfilled the following tasks:

I. Liaison Work

The CCPIT received 661 people in 58 separate groups from 24 countries and regions, and organized 8 delegations to visit 12 countries.

In order to meet the needs of our country's four modernizations, whether in receiving foreign visitors or organizing visiting delegations to go abroad, marked changes took place in both the goal and content of the CCPIT. It further expanded its work from the exploration and development of bilateral import-export trade to include the various aspects of work in the realm of economic cooperation. For instance, the British-Chinese Trade Association delegation from the United Kingdom visited China. In accordance with the demand of the CCPIT, this delegation included high-level responsible persons of coal, offshore petroleum, natural gas, electrical power, communications and transport, construction engineering and other corporations. Adopting such options as government loans, joint investment, compensation trade, cooperative production and transformation of old enterprises, both countries exchanged opinions extensively and created favorable conditions for launching economic cooperation between China and the United Kingdom in the future.

Also, the CCPIT organized the Chinese economic delegation to visit Austria. At the "Symposium on Strengthening the Relationship in Economic Cooperation with China" held by the other party, the Chinese delegation gave 5 special-topic reports for the 165 foreign delegates from 13 countries and regions, and conducted over 260 individual talks with participants at the symposium. The delegates popularly held that much could be done in cooperation with China.

In December 1982, the CCPIT took the lead in establishing a promotional group for China-Japan joint investment and cooperative enterprises. The members of the group included responsible persons from concerned departments such as the

Ministry of Foreign Economic Relations and Trade, the State Economic Commission, the Ministry of Finance, the Bank of China, the International Trust and Investment Corporation and the Generl Administration of Customs. The aim of the group was: To promote and coordinate investment and cooperation between China and Japan, promote the development of joint investment and cooperative enterprises between the two countries, exchange views on the situation of the joint investment and cooperative enterprises that had already been set up between China and Japan, and enhance the solution to problems of common concern.

II. The Work of Exhibitions Abroad

The CCPIT held 17 exhibitions (including 5 independent exhibitions and 12 exhibitions at international expos) in 17 countries, with a total exhibit area of 11,954 square meters and 12,353,000 spectators.

In recent years, we have carried out certain reforms in foreign exhibitions, strengthened activity to promote trade, and developed foreign markets for China's industrial departments and localities. In 1982, the CCPIT organized 9 industrial and trade companies, 2 import and export general companies, and 12 branch companies in the ports of 10 provinces, municipalities and autonomous regions to take part in exhibitions abroad. During an exhibition in Ireland, the Beijing import and export branch companies in light industrial and handicraft products displayed furniture, light industrial products and handicrafts, which were sold out shortly after the exhibition opened. Two months after the conclusion of the exhibition, these branch companies received telegrams from some 30 foreign enterprises asking to order goods and continuously concluded transactions, thereby actively promoting the export of local commodities.

The CCPIT once organized six industrial and trade companies of the machinery, chemical industrial and other industrial departments to take part in the expo in Nigeria. Through expo activities, the various companies established a relationship with many customers and understood the market situation in Nigeria. In the 10 days of the exhibition, not only were most of the exhibits sold, but many forward contracts were signed also.

III. Exhibitions in China and Technological Exchange Work

We hosted 15 foreign exhibitions in China. Among these exhibitions, two were related to energy, eight to light and textile industry and three to electronics. During the exhibitions, we held 242 China-foreign technological symposiums.

The international exhibition of petroleum facilities and technology put together by nine countries including Canada, Norway, the United Kingdom and the United States was on a relatively large scale with profound contents, involving both land and maritime petroleum exploitation facilities and involving both prospecting and pipeline transportation. This represented the definite level of development of the current international petroleum technology. This exhibition was welcomed by China's petroleum industrial departments, and played a favorable role in promoting Chinese-foreign cooperation in this realm.

In November 1982, we held an exhibition in processing, manufacture and technology in Beijing. Participating in this exhibition were 90 companies from 13 countries and regions, including Austria, Belgium, France, West Germany, Holland and Italy. The exhibit items were primarily samples, blueprints and materials. The purpose was to seek partners in China who would supply these products. During the exhibition, the exhibitors of various countries carried out 131 business talks with our country's concerned departments. Both parties expressed relatively strong interest in cooperation in 41 projects. This was a new method in the work of hosting exhibitions in China for foreign countries.

In 1982, the CCPIT made arrangements for nearly 400 foreign engineers, scientific workers, enterprise management personnel and sales managers of over 10 countries to hold over 370 special-topic technological discussions and report meetings in some large cities in China. Through such exchange, we not only brought in new technology, but also promoted import-export trade and economic cooperation. In November 1982, China and Italy reached an agreement in which Italy would provide a complimentary fund to aid China in establishing a rural energy development research center.

The center for introducing foreign new product samples of the CCPIT was also an important channel for introducing foreign products and new technology to Chinese customers. Since 1982, over 1,600 people from various places throughout the country came to the sample center to look up, take pictures of and copy related materials. This year, we successively held in Beijing, Tianjin, Shanghai, Nanjing, Xian, Shenyang and other places comprehensive or specialized exhibits of samples from Japan, the United States and France. The exhibits won the appreciation of the foreign trade and production departments of those places.

IV. Legal Work

Because the vigorous development of foreign economic and trade relations in our country brought about more and more legal issues, the CCPIT thus rapidly developed its economic and trade legal work. For instance, with the exception of the work of maritime arbitration, the original foreign trade arbitration was expanded into foreign economic and trade arbitration. To the trademark agency business, we added the patent agency business. We also launched the work of legal consultation and strengthened management over the work of export licensing and authentication throughout the country.

In 1981, we handled 19 arbitration cases. In 1982, we handled 29. In 1981, we handled, figured the settlement and wound up 19 cases involving maritime losses. In 1982, we handled 25. In 1981, we offered over 200 legal advisory and consultation services at home and abroad. In 1982, we handed over 430. In 1981, we acted as agent for one patent application. In 1982, we applied for patents for four. In 1981, we handled 2,700 trademark registration cases. In 1982, we handled 2,746. In 1981, the CCPIT branches in various localities throughout the country handled around 40,000 copies of export licensing and authentication, which were increased to some 60,000 copies in 1982.

The contact between the CCPIT and international legal circles also increased daily. In 1982, through such methods as going out to others (15 people in 7 groups) and inviting others to come (80 people in 2 groups), we inquired into the profession and exchanged experiences with corresponding organizations and personnel of other countries. We signed the "Arbitration Cooperation Agreement" with the Ghana Arbitration Association. China's experience in adopting the method of mediation to resolve international economic and trade conflicts has won international attention. The International Business Arbitration Council specially invited the CCPIT to introduce the experience in mediation at the Seventh International Conference in 1982.

In 1982, we also set up the Chinese branch of the International Association for Protecting Industrial Property Rights. The address was the CCPIT.

V. Propaganda Work

The journal CHINA'S FOREIGN TRADE, which started publication in 1956, became increasingly influential internationally in recent years. In 1982, we continued to publish this journal in Chinese, English, French and Spanish, and distribute it in more than 150 countries and regions. Marked results were scored in raising the understanding of the economic and trade circles of various countries toward China and in promoting the development of our country's export trade. Through responding to and handling a large number of letters from readers abroad, the journal CHINA'S FOREIGN TRADE provided for foreign businessmen consultation service and materials concerning China's foreign economic affairs and trade, and acted as go-between for Chinese and foreign trading companies in the establishment of business relations.

FOREIGN PRODUCTS AND TECHNOLOGY is another journal published by the CCPIT since 1980. It is a comprehensive journal which introduces to China new products, new technology, enterprise management experiences, Chinese-foreign technological exchange and movements in economic cooperation abroad. In close coordination with the needs of our country's four modernizations, it reports on foreign economic cooperation and foreign trade in a selective, analytical and comparative manner. This journal stresses the publication of articles written by specialists of various trades and undertakings upon return from their tour of investigation abroad. These articles were especially popular. As of 1983, this journal was circulated by the post offices throughout the country.

At the request of some foreign visiting delegations, delegations and tourist groups, the CCPIT conducted symposiums with them on China's economic construction and foreign economic and trade issues. In 1982, we received a total of 192 people of 27 foreign delegations, 6 of whom were government officials, 45 journalists, 66 scholars and research personnel, 34 social activists, 30 entrepreneurs and 11 other individuals. Through the symposiums, we enhanced our mutual understanding and positively promoted our mutual economic and trade contracts.

VI. The Work of Branches

In 1965, there were only eight local CCPIT branches. By 1981, there were 25 and by 1982, there were 27.

In 1982, the various local CCPIT branches also developed to varying degrees their foreign businesses. Some branches which have the conditions to do so, with the assistance of the Council, hosted foreign exhibits, took part in and organized exhibitions abroad, organized Chinese-foreign technological exchange activities, and dispatched personnel to participate in delegations organized by the Council or by themselves to go abroad. In addition to assisting the Council in receiving visiting foreign guests, they also directly invited some foreign delegations to visit their own localities. They popularly launched the work of export licensing and authentication. A few branches even handled some legal advisory work in light of their needs and possibilities.

Many branches scored achievements in such aspects as encouraging economic cooperation between their own localities and foreign countries, importing technology and launching technological transformation. For instance, the Liaoning branch made marked progress in encouraging cooperation between the province and foreign countries. It consolidated 24 cooperative projects, which are being implemented presently. The CCPIT branches increasingly become an indispensable force in the foreign economic activities of various localities.

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CHINA'S RURAL BANKING AND FINANCE

Beijing ZHONGGUO JINGJI NIANJIAN (1983) [ALMANAC OF CHINA'S ECONOMY (1983)] in Chinese 25 May 83 pp IV 142-IV 143

[Article by Sun Pu [1327 2528], Rural Banking and Finance Institute, Chinese Agricultural Bank Head Office]

[Text] During 1982 substantial progress was made in rural banking and finance activities in the course of rapid development and steady improvements in agricultural contract responsibility systems linked to output and amidst a thriving rural economy.

In March 1982, the head office of the Chinese Agricultural Bank convened a meeting of branch bank directors throughout the country that put forward five specific tasks in rural banking and finance during 1982 centering around improvement in the economic effectiveness of rural credit, namely study of how wealth is generated, accumulated and used for energetic amassing of rural funds; good management and use of funds to support agriculture, and support to all-round development of the economic diversification of farming, forestry, animal husbandry, sideline occupations and fisheries; strengthening credit to commune and brigade enterprises to support healthy development of enterprises in the midst of readjustment; good performance in providing credit to rural businesses to promote an expansion of the exchange of industrial and agricultural goods; and attacks against criminal economic activities under the centralized leadership of all levels of the party and government. As a result of common efforts to expand rural financial and banking work, substantial achievements were made on these five specific tasks.

I. Appearance of a New Situation of Brisk Savings and Loans

As of the end of 1982, savings deposits in the country's Agricultural Bank and credit cooperatives amounted to 60.5 billion yuan, 10.5 billion yuan more than in 1981 for a 21 percent increase. All categories of loans amounted to 72.8 billion yuan, 7.8 billion yuan more than in 1981 for a 12 percent increase. During 1982, the increase in savings was greater than the increase in loans and 2.7 billion in loans was repaid. This played an active role in balancing national credit receipts and expenditures and the withdrawal of currency from circulation.

II. Further Development of Rural Credit Receipts and Expenditures Was Characterized in the Following Ways:

1. Rural savings deposits increased month by month, time deposits accounting for more than 70 percent of the total. As a result of steadily increasing peasant income and better services provided by the bank and credit cooperatives, by the end of 1982 total national rural savings deposits amounted to 28.2 billion yuan, up 7 billion yuan from 1981 for a 33 percent increase. This was the all-time highest year of increase. Figured in terms of national rural population, savings averaged 34.10 yuan per capita or 8.44 yuan more than in 1981. The ratio of fixed savings deposits to rural savings deposits as a whole rose from 65.2 percent in 1981 to 70.2 percent in 1982.

2. Both recipients of loans and the nature of loans changed. First, a manifold increase occurred in loans to various kinds of contracting households. During 1982, banks and credit cooperatives everywhere issued a cumulative 18.3 billion yuan in loans to commune and brigade collectives and to individual commune members, including 8.48 billion in loans to individual commune members, or 5.18 billion yuan more than in 1981 for a 1.6-fold increase. Second, simultaneous with issuance of loans to support grain production, vigorous support was given to commune and brigade, and individual commune member development of economic diversification. Statistics from five key counties in Shandong Province and Beijing Municipality show a cumulative total of 920 million yuan being issued in loans for economic diversification for 1982, more than double the 1981 figure. Loans used in all jurisdictions to support grain production represented 40 percent of all agricultural loans, while loans used for economic diversification amounted to about 60 percent. Third, the former use of loans solely to support production links changed to support for the entire process of agricultural reproduction in a linking of support for commodity production and support for commodity flow. In Yanjing Commune, Jintang County, Sichuan Province, for example, with the support of credit cooperatives, more than 170 commune member households grew more than 30,000 square meters of mushrooms, producing more than 87,000 jin of fresh mushrooms annually. When supply and marketing cooperatives refused to buy them, specialized households became worried. Following an investigation by the Yanjing credit cooperative, another 690 yuan loan was granted to help eight commune member households with the long-distance transportation of the mushrooms for sale in Chengdu and Guanghan. This quickly solved the problem of "difficulty in selling mushrooms," and promoted development of mushroom production. Fourth, loans to state-owned agriculture, which formerly were used mostly to support agriculture, changed to support for integrated agricultural, industrial and commercial operations. In 1982, the Agricultural Bank in all jurisdictions loaned a cumulative 3.74 billion yuan to state-owned agriculture, of which 1.95 billion yuan or 52 percent was for support to agriculture, and 1.79 billion yuan or 48 percent of which was for farm-run industries and businesses. In addition, state-owned agriculture was given help in carrying out a technical transformation, with a cumulative 380 million yuan in medium- and short-term equipment loans being issued in 1982, for rather good results.

3. Selective loan support was given to commune and brigade enterprises, the emphasis being on support to trades and industries providing services to agricultural production and to products that meet market demand. In 1982, the Agricultural Bank and credit cooperatives throughout the country issued a cumulative 15.2 billion yuan in loans to commune and brigade enterprises, and received a cumulative 13.4 billion yuan in repayments. The 1.8 billion yuan difference was new loans primarily for support to the farming industry, the breeding industry, for agricultural and sideline processing, and for trades and industries providing services to peasant production and daily life.

4. In addition to the leading role played by rural business loans in supporting state-owned businesses, attention was given support for development of collective and individual businesses. At the end of 1982, the outstanding balance of rural business loans stood at 40 billion yuan, more than 3 billion more than in 1981. This included an outstanding balance of 140.6 billion yuan [sic] for rural collective and individual businesses, 220 million yuan more than in 1981. This played an active role in keeping open rural channels for commodity circulation.

As a result of changes in recipients of rural loans for expansion and services, the workload increased tremendously. In order to meet requirements of the rapidly developing rural economic situation, all jurisdictions established professional network outlets, readjusted the work of credit cooperatives, and improved methods for managing loans and final settlements. Agricultural Banks at all levels took note that customers for agricultural loans were no longer mostly production brigades and production teams, but individual households. In view of the large numbers of households, the wide area, and the decentralization, they added more credit cooperative branches, reorganized a large number of credit stations, and processed more individual household loans at credit stations where conditions permitted. In management of credit, numerous places used the foundation laid by production teams in the implementation of production contract agreements and agreements for the sale to the state of products. Once an individual applied for a loan, the production team examined it, and the business office or credit cooperative verified it, a loan contract was signed or a loan handbook issued, and an item-by-item verification was made, with funds being issued in installments. In the settlement of loans, where households sold and households settled for agricultural products, money received for products was also settled by households. Where a cash settlement was wanted, a cash settlement was paid, where settlement by transfer was wanted, a settlement by transfer was made. As a convenience to the public, insofar as was locally necessary and possible, when profits were realized from state procurement, some grassroots offices and cooperatives procurement stations handled the settlement on the spot. Money that peasants received from the sale of their agricultural and sideline products could be used to repay bank loans on the spot or deposited in savings accounts. Very good results were obtained with this.

It may be seen from the foregoing analysis that the Agricultural Bank began to change from a bank that handles purely agricultural loans to a multiservice rural bank.

III. Summarization of Eight Basic Experiences for Improving Economic Effectiveness of Rural Credit

In September 1982, the Agricultural Bank head office convened a conference on the exchange of experiences on economic effectiveness of rural loans at Shijiazhuang in Hebei Province. The conference proceeded from an exchange of experiences to a summarization of eight basic experiences in improving economic effectiveness of rural loans.

1. Diligent implementation of the party's rural programs and policies, and suiting measures to local conditions in supporting all-round development of farming, forestry, animal husbandry, sideline occupations and fisheries. Only with development and vitalizing of the rural economy, and increase in peasant income can rural finance and banking work play its full role and be able steadily to increase the economic effectiveness of rural credit.

2. Support must be given to the entire agricultural production process for development of rural socialist commodity production. Simultaneous with support to production links, rural loans must also support processing, storing, transportation and marketing links, and use a concept of commodity production to support the entire process of agricultural production.

3. Support for the popularization of agricultural science and technology and promotion of scientific agriculture. Experiences everywhere demonstrated that proceeding from realities, suiting methods to local circumstances, actively supporting collective units, "double contract households," specialized households, and key households, and effective use of science and technology can advance development of production, increase output, increase earnings, and produce rather good economic effectiveness. For example, the Shihezi City branch bank in Xinjiang Province found that use of plastic mulch was a key measure for promoting increased cotton yields. As a result, it provided vigorous support with funds and work to 18 Shihezi farms running agricultural, industrial and commercial enterprises who used plastic mulch techniques, thereby increasing by more than half the average yields per mu of cotton over the previous year.

4. Strengthening of investigation and study, and application of information to guide work and production. Development of commodity production entails being attuned to the myriad changes in market conditions, and even more requires the receipt of accurate information promptly in order both to increase socioeconomic effectiveness and economic effectiveness of bank credit. For example, the main branch in Zhangjiakou Prefecture, Hebei Province, assigned specialists in economic information work, and combined specialization with selection of special topics, building of files, work inside and outside the bank, and collection of data to provide timely economic information to units concerned, which played a very good role in dovetailing production with marketing. Huaian County in the same prefecture had 39 commune- and brigade-operated brick and tile plants, all of which had large numbers of bricks and tiles in inventory because they sought markets only within the county during the past several years, and 19 of the plants had gone out of business. Since 1982, the county branch bank intensified its economic information work and

found out that there was a shortage of materials for building houses in Datong City, Shanxi Province, where bricks cost 0.07 yuan each. In Huaian County, on the other hand, bricks sold for only 0.035 yuan each. As a result of this survey, the branch concluded a good market existed for the bricks and tiles, and that it should organize and support their production. Under the title, "A Market for Tiles," the county branch bank provided information to commune and brigade enterprises and promptly issued 100,000 yuan in credit to help the 19 brick and tile plants revive production, and to sign sales contracts with Datong, Beijing and Tianjin. As of the end of June 1982, the county's 39 brick and tile plants had realized an output value of 700,000 yuan and a net profit of 290,000 yuan. Some plants got out of the red for the first time in a long time.

5. Support to making the most of production advantages and solving key problems. Experience everywhere has shown that if rural credit funds are to be used where they will do the most good, a proper selection of investments must be made and forces concentrated. For example, all levels of the Bank of Agriculture in Hulunbeier League, Nei Monggol, realized that the area had bountiful grasslands, that commune members were accustomed to raising milk cows, that state-owned livestock farms had large numbers of hybrid dairy cows, but that the Huonei Dairy Products Plant had long lacked milk to process. Acting on this information, they decided to give vigorous support to commune-member development of milk cow production, with very good results.

6. Unswerving adherence to the principle of taking the planned economy as the key link, with market regulation playing a supplementary role in actively promoting loan contact systems. Institution of loan contract systems and linking of loan agreements to agricultural economic agreements is an important way in which to advance state agricultural production plans and the implementation of monopoly procurement and assigned procurement plans for agricultural and sideline products. Experience everywhere demonstrated that a firm grip on this task plays an active role in upgrading effectiveness of both the macro- and microeconomy.

7. Perfection of the rural credit system and strengthening of planned control of rural credit. Improvement of the economic effectiveness of rural credit requires assiduous adherence to the credit system, strengthening of credit control and making the most of the turnover of loan funds. Experience everywhere suggests, first, that all categories of rural funds must be centrally planned out; second, that a planned control system for credit of "centralized planning" with level-by-level management, the linking of savings and loans, and contracting of sole responsibility for shortfalls must be diligently carried out; third, time limits must be set on credit, and that over a period of time, rough calculations of sources of funds must be worked out on the basis of amounts of savings and time periods on loans, and that decisions must be made as to how funds will be used; fourth, the "three checks" system must be adhered to for loans.

8. Strengthening the building of leadership teams, taking the training of cadres firmly in hand, and bringing about the "four modernizations" of the cadre corps as quickly as possible. The Agricultural Bank urgently needs a

large number of "bright people" at all levels with a knowledge of farming, forestry, sideline occupations, animal husbandry, and fishery production and the circulation of goods, with a knowledge of currency and credit, and with a knowledge of bank management. Thus, vigorous efforts must be made to train cadres. Cadres in every bank should become, as quickly as possible, the experts and the specialists in their positions. As of the end of November 1982, more than 100,000 leadership cadres and various kinds of specialists were rotationally trained at above the branch bank manager level.

The foregoing eight points were distilled from practice as effective experiences in raising the economic effectiveness of rural credit.

IV. Very Great Progress Made in Attacks on Serious Criminal Activities in the Economic Field

At the 1982 national conference of branch bank managers, it was also proposed that attacks on criminal economic activities be made one of the main tasks in rural banking and finance work. Under central leadership of the local party and government, all levels of the Agricultural Bank should take positive action. They should seek out and punish criminal elements among bank loan cadres, purify cadre ranks, strengthen systems management, and plug loopholes. They should also coordinate the struggle with society, provide leads to departments concerned to break economic cases, safeguard money for the state and better carry out bank functions.

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