

UNCLASSIFIED

AD NUMBER
AD840533
NEW LIMITATION CHANGE
TO Approved for public release, distribution unlimited
FROM Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; 03 JUN 1968. Other requests shall be referred to Department of the Army, Fort Detrick, MD 21701.
AUTHORITY
SMUFD ltr, 17 Feb 1972

THIS PAGE IS UNCLASSIFIED

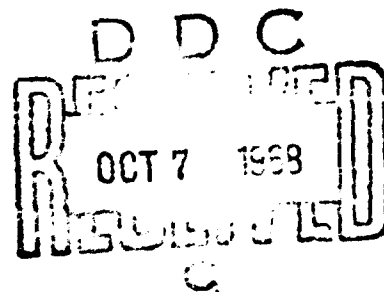
AD840533

TRANSLATION NO. 2255

DATE: 3 June 1968

DDC AVAILABILITY NOTICE

Reproduction of this publication in whole or in part is prohibited. However, DDC is authorized to reproduce the publication for United States Government purposes.



Best Available Copy

STATEMENT #2 UNCLASSIFIED

This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of Dept. of Army, Fort Detrick, ATTN: Technical Release Branch/TID, Frederick, Maryland 21701

CHICOM AGRICULTURAL PRODUCTION
AS A MILITARY POTENTIAL

The National Defense
April Issue 1966
15(L): 26-33

Itsuo Ikeda
Member, Defense Analysis
Center, Defense Agency

1. Importance of Agriculture in Chicom Economy

The importance of the agricultural industry to the Chicom economy can be plainly shown with several indicators.

First of all, the percentage of number of people engaged in agricultural industry in relation to the total population, was 89.7 per cent in 1949 and 86.2 per cent in 1956; however, the total number of people engaged in agriculture increased from 480 million to 555 million during the same period. Although no numerical figure as to the number of agricultural people has been subsequently announced, it is believed that the percentage rate is at least at the level of 1956's. (As of 1963, the percentage of people engaged in the primary industry in Japan was 28.1.) Next, a check of national income by industry revealed that in 1959, agriculture represented the top most industry consisting of 43.6 per cent of the total industrial capacity. This situation existed despite the lowering of the percentage of agriculture relative to other industries subsequent to the beginning of the First Five-Year Plan. In contrast to the above, the income from our primary industries (agriculture, forestry, and marine products) as of 1963 totaled merely 13 per cent of the total industrial income.

Moreover, Tokyo Post, 11 December 1961, indicated the importance of agricultural industry. It stated, "Eighty per cent of daily goods of the entire people are directly or indirectly derived from agriculture. Industrial products from raw goods derived from agriculture represent approximately 40 per cent of the total national production, while 80 per cent of the light industrial products depend upon agriculture as source ()
↑

of their raw materials. Furthermore, approximately 80 per cent of the goods distributed in the domestic market are agricultural products as well as their subsidiary and manufactured products, and these products represent more than 70 per cent of the total export goods. More than 50 per cent of the total national income are attributed to the agricultural industry, and approximately 50 per cent of the financial income are either directly or indirectly related to the agricultural industry."

For countries like Communist China that is striving for socialization of industries, the aforementioned conditions are of significance simply from the standpoint of China's future economic growth. Of course industrialization under socialism, as it has been illustrated in Soviet Russia, does not occur through establishment of unrestricted contacts with foreign markets. By means of total economic control, it initially thwarts economic disruption of domestic market by exercising restrictions of import items that would unfavorably affect the domestic market and then the government attempts to develop less meaningful industries which can withstand the competitions from the advanced industrial nations. Consequently, these products manufactured under these stipulations cannot expect to have foreign demands and thus, they constitute only a limited source for gaining foreign currencies. Thus, in order to develop a socialistic industrialization, the country is compelled to rely upon continued emphasis in the agricultural industry in the absence of foreign aids.

Therefore, the degree of industrialization is essentially governed by the amount of agricultural products. As it has been frequently emphasized by the experts of Chicom economy, the favorable agricultural situation for the years 1950, 1952, and 1955 stimulated other industries for each of the year following the aforementioned years while the dismal agricultural situation for the years 1951, 1953, and 1956 adversely affected the industrial advancement for each of the year following those mentioned years. These facts seemingly confirm the manufacturing industry - agriculture relationship mentioned earlier in this report. It still remains fresh in our minds that the three years of catastrophic agricultural situation beginning in 1959 placed the Chicom economy on the verge of bankruptcy.

Regardless of the mentioned relationship between the manufacturing industry and agricultural industry, it cannot be considered an one-sided affair in which the agricultural industry limiting the manufacturing industrial output. It should be bore in mind that industrial output accelerates the agricultural output. In order to increase agricultural output, it must depend upon the support of the manufacturing industries in such matters as water supply, irrigation, cultivation, fertilization, and insecticides. In other words relationship of mutual dependency exists

between the agriculture and manufacturing industry, and especially for countries like Communist China, the aforementioned relationship of the two industries must be clearly understood.

However, during the 1950's, the Chinese authorities overlooked the importance of the manufacturing industries providing the necessary support to the agriculture when they placed a high priority for the development of the heavy industry. For example, during the First Five-Year Plan (1953-1957) when the total investment for the period was considered 100, only 7.6 per cent of the investment were allotted for the development of agriculture and forestry, irrigation, and meteorology, and the majority of the investment for developments was essentially expended in irrigation projects. As for the production of manufactured fertilizer, it was not until the last stage of the First Five-Year Plan that China finally achieved an annual production volume of 630,000 tons. The production of such farm implements as tractors and combines also did not begin until the last stage of the First Five-Year Plan. The method employed by the Chinese authorities not only greatly limited the industrial support of the agricultural industry but in order for the latter to limit support of the manufacturing industry, the authorities emphasized the establishment of agricultural communes. However, the establishment of the communes without adequate mechanization must rely upon the strengthening of manpower for the necessary increase in production. It was also questionable whether one plan for the utilization of manpower would be universally applicable to all the communes since they were faced with among some of their delicate problems, such matters as individual geographic variances. Probably it could be stated candidly that the great economic disaster China suffered beginning in 1959 were obviously the results of the authorities having completely disregarded the balanced relationship that exists between the agricultural industry and manufacturing industry.

After having paid such an exorbitant price of "Three Years of Consecutive Catastrophe," the Chinese finally became aware of the agriculture - industry relationship, and they announced a national economic development plan with agriculture as its foundation and industry playing the role of guiding the development. This is the so-called "Agriculture Fundamental Theory" which is summarized as (1) Industrial development is governed by the extent of agricultural development which dictates the rate and extent of industrial development, and (2) therefore, the industry must provide adequate equipment to agriculture in an effort to support technical progress of the latter. (*Asia Economics*, Volume No. 9, 1965)

In the like manner, the principle of providing highest priority to agriculture was adopted in the planning of "Third Five-Year Plan"

which began in 1966. (Editorial, People's Daily, 1 January 1966)
Consequently, judging from the economic structure and character of Communist China and the recent policies of the government, it can be said that the agricultural production represents as the essential element of the military potential of Communist China.

2. Some Basic Conditions That Restrict Agriculture

At this time, some basic conditions which limit the agricultural production of the mainland China will be discussed.

The first consideration is given to food products which are the nuclei of the agricultural production and learn where they are grown and how they are produced. A check reveals an approximate sketch as illustrated in Figure No. 1. It also discloses that the main food producing areas are divided into four separate regions, namely (1) Northeast grain producing area, (2) Yellow River wheat belt, (3) Chang Chiang (Yangtze River) rice producing belt, and (4) South China rice producing area. From the overall standpoint, the country could generally be divided into the dry farming region of the north and the rice belt of the south. These identifications of areas generally correspond to the relative amount of precipitation. The annual rainfall for regions (1) and (2) mentioned above is approximately 500 mm per year, for region (3) is approximately 1,000 mm, and that for region (4) is over 1,200 mm. Moreover, there are much variations in the amount of rainfall, depending upon the season and year. Generally, however, the rainfall is prevalent during the summer season with 50 to 60 per cent of the rainfall occurring for the region between the Yellow River and Yangtze River, 70 per cent for the areas north of the Yellow River, and 80 per cent for Hpeh and the eastern sector of Inner Mongolia. The amount of rainfall within any given region varies depending upon the year. The variation for the South China and Northeast region is 20 per cent, for the area between the Yellow River and Yangtze River is between 25 to 30 per cent while it varies more than 50 per cent for the areas in North China and Inner Mongolia.

The aforementioned close relationship between crops and rainfall greatly limits agricultural production. The first point is that there is a great fluctuation in agricultural production caused by lack of rainfall. During the period from 206 BC to 1936 or in 2,124 (sic) years, there have been relatively speaking, 1,091 great floods and 1,060 great draughts or approximately one, either great flood or great draught, every year. It is thus understandable why Communist China places so much emphasis in controlling irrigation. However, it has paradoxically shown that the more they emphasized irrigation projects, the more the country suffered. For example, at the time the First Five-Year Plan was initiated, the area suffered (from flood or draught) amounted to less than 10 per cent of the total areas under cultivation. However, with the progress in irrigation projects, the amount of area suffered also increased. In 1957,

it was 12 per cent of the total cultivated area. In 1957-1958, it was approximately 15 per cent. In 1959, it was 40 per cent, and in 1960-1961, the areas suffered amounted to unbelievable 60 per cent. These adverse results can be attributed to slipped construction resulting from the mobilization of great masses of people. It is believed that frequently it would be more difficult to correct existing dry defects than starting a new project. Great difficulties are found in the fact that it would be exceedingly difficult for the country to improve the level of agricultural techniques nationwide. The obstacles for this attempt are found in varieties of weather conditions, in types of crop raised and methods of cultivation as well as in regional differences in topography, soil composition, and available labor forces. Consequently, the country is compelled to make various changes in its policies for most suitable results, depending upon the existing situation in the particular region. From an overall standpoint, the regions in Northeast, North China, and Northwest where dry farming is mainly practiced are lacking in sufficient labor force in both men and beasts. Consequently, emphasis in mechanization in cultivation and transportation such as the use of tractors and trucks is imperative. For areas such as Hupoh and the Yellow River Basin where they constantly face floods or drought, the emphasis must be on irrigation projects while in the southern rice growing region with over abundance of rainfall, the emphasis is placed in the use of drainage equipments. The third point to be mentioned is that there are variations in the amount of crop depending upon its kind and location. The Table No. 1 and Table No. 2 were both extracted from the Far Eastern Economic Review Yearbook. Undoubtedly a reader will notice that rice crop is approximately 3 to 1 in comparison to wheat for a given area. From the standpoint of amount of crop relative to a unit area, wheat is least following in the order of rice, potatoes, and grain. Because of the aforementioned situation, although the Yellow River Basin represents 40 per cent of the total cultivated area, it produces only 20 per cent of the total food production. It was because of this situation that the policy of expanding the rice growing into the North was instituted following the "Three Consecutive Years of Catastrophy." It is believed that a reader can notice some appreciable differences in reviewing the results indicated in the Tables No. 1 and No. 2.

Although the fourth point is different in perspective from the previously mentioned points, it is believed appropriate to mention at this time. It concerns damages resulting from insect and plant diseases. China suffers incalculable damage from blight and harmful insects every year. Elimination of damage from them alone would be equivalent to an increase in acreage of food products and cotton, 10 and 20 per cent, respectively. Consequently in this particular problem area, the production and utilization of agricultural chemicals becomes a matter of significance.

The final point is referenced to uncultivated areas in China. It is said that the acreage is almost equivalent to the size presently under cultivation. The development of these uncultivated areas has been constantly emphasized since the inception of the First Five-Year Plan. However, very little progress in this direction has been accomplished due to the remoteness of these uncultivated areas. According to official statistics, the increase in cultivated acreage between the period of 1950 to 1955 amounted to only 7 per cent. It is believed that subsequent rate of increase has been even less than the aforementioned figure, and accordingly it is also believed that not much of any great increase in cultivation of new areas can be expected.

3. Indicator and Actuality of Agricultural Modernization

In order to increase agricultural production, only two avenues are available, viz., expand acreage of cultivation or increase crop production per unit area. If it is difficult to expand the acreage of cultivation, then the country must rely upon improvements of agricultural techniques for the increase in crop production. Mao Tse-tung's initial time schedule for agricultural technical reformation indicated considerable prudence regarding the problem. He estimated that to accomplish a nation-wide technical reformation in agriculture would require 20 to 25 years. (New China Monthly Report, November, 1955) However, influenced by the superficial optimism generated by the "Great Leap Forward," the time schedule was shortened and resulted in establishing an accelerated plan of "Counting from 1959, minor problems concerning agricultural mechanization will be accomplished in four years, average problems will be resolved within seven years, and major problems within 10 years." However, subsequent to the "Three Consecutive Years of Disaster," in 1962, the authorities changed their period of estimation to the original plan of 20 to 25 years for accomplishing modernization of agricultural techniques starting with 1962. (Editorial, People's Daily, 9 November 1962) In China the word "shih-hua" (four changes) is expressed symbolizing modernization or technical improvement in agriculture. These "Four Changes" are in mechanization of agriculture, electrification, improvement in irrigation, and increase in chemical utilization. The tentative dates of accomplishment as mentioned by LIU Jih-hsin are as indicated in Table No. 3. The holdings (as of 1964) as indicated in Table No. 3 are believed based upon Chou En-lai's report made in late 1964. In contrast to the total amount required for completion of modernization, the table indicates that the country has only one-seventh of the required number of tractors, one-third of drainage equipment, two-sevenths of necessary fertilizer, and two-fifths of the needed electrification in agriculture. The deficiency in number of tractors is especially glaring. On the whole, presently the country has only one-third of the necessary materials/items required for the modernization of the agriculture.

Although incomplete, few statistics are furnished to indicate how much progress was made in the "Four Changes" during the year 1965. A report on irrigation projects revealed that for "the work during the winter of 1965, 14 million more manpower was mobilized and accomplished more than 50 per cent in comparison to the previous year, and 1.3 million hectares of additional land were newly irrigated." (Asia News, 5 February 1966) However, based upon previous instances, there are some doubts as to actual benefits these results will produce. Although in regard to drainage facilities, "there have been an increase of 25 per cent over the previous year," (same reference as above), the fact that the amount of holdings concerning drainage equipment was the same as reported in a weekly report published at the end of 1964 could only be interpreted that the number of increase in equipment represented primarily replacement of old equipment. A similar report concerning number of tractors has also been made. (New China News Agency, 29 September 1965) It is not clear whether hand tractors were included in the number of tractors; however, it is noteworthy to observe that the production of tractors during the period of January to August amounted astonishingly to more than 5.5 times the corresponding period during the previous year. One interpretation concerning the phenomenal increase is that rather than clearly reflecting the growth, it also indicates how meager the original number of tractors. According to New China News Agency (25 February 1965) the consumption of electrical power in the rural areas increased by 25 times that of 1957's. Since the electrical consumption in the rural areas for 1957 was estimated at 140 million kw, it was calculated that the consumption for the year 1965 was 3.5 billion kw. Since successive numerical figures are available since 1961, (reference is made to the author's Economic Power of Communist China), the following figures are cited: 1961 - 1 billion kw, 1962 - 1.56 billion kw, 1963 - 2.1 billion kw, 1964 - 3.22 billion kw, and 1965 - 3.5 billion kw. The reader should note that in contrast to the approximate 40 per cent annual increase during the period of 1961 - 1964, the increase for the year 1965 amounted to less than 10 per cent, reflecting tremendous decrease in rural electrification works for the year. Although it was not included in the Liu Jih-hsin indicator, the production for agricultural chemicals for 1965 was reportedly approximately 50 per cent more than that for the previous year (Economic Review, 1 January 1966). Since the production volume for 1964 was approximately 300,000 tons, the 1965 production was estimated at 450,000 tons.

It was reported that "production for the period January - August was 80 per cent more than the corresponding period for the previous year." (Kuang-Ming Daily, 24 October 1965) The HONG news dated 1 November reported that "as of present" the amount of production was 1.7 million tons more than the volume produced in 1964. The December 15th announcement of the HONG stated that the total production as of the end of November was 2.79 million tons more than that of the previous year. Consequently determining

the date of "as of present" previously announced by the Ministry of Agriculture. If the time frame was as of the end of September, it meant that the monthly production for October and November amounted to approximately 500,000 tons each and that it also would signify that there would be an increase of 3.34 million tons over the previous year. The time frame was as of end of October, it meant that the monthly production for the month of November amounted to 1.03 million tons and that there would be an increase of 3.38 million tons over the previous year.

According to Economic Review, dated 1 January 1966 (thesis by Tang Ch'eng-Chieh) the production of chemical fertilizer increased by more than 60 per cent over the previous year. If the production is calculated in the first time frame, the total production for 1965 amounted to approximately 8.6 million tons. If figured on the second time frame, the total production would have been over 10 million tons. The latter figure is believed too excessive when interpreted with figures related to the 1964 production. The amount of fertilizer distributed to the rural areas during 1964 was approximately 7 million tons. When the amount of fertilizer imported was subtracted from the total distribution, the domestic production was estimated at 5 million tons (previously referenced author's article). Thus, it is believed that the first interpretation regarding the production is preferred over the second interpretation. Consequently it is estimated that the domestic production amounted to 8 million to 9 million tons. By adding the import to the above-mentioned amount, it seems that approximately 10 million tons of fertilizer were distributed to the farmers. Regardless of how one views the situation, he cannot deny the fact that Communist China has greatly accelerated its production of chemical fertilizer. During 1965, 28 large and 140 small fertilizer factories were either built or expanded, and reportedly almost all the provinces and autonomous regions have at least one chemical fertilizer factory. (NCNA, 15 December 1965) The fact that these news invariably mentions a production increase in phosphate fertilizer indicates that its production has increased much more rapidly than the production of nitrogenous fertilizer.

A survey of the aforementioned statistics reveals that there has been a phenomenal growth in chemical fertilizer production and increase in electric consumption in the rural areas in the modernization of agricultural production for the year 1965 and that estimated 40 per cent of the Liu Jih-hsin indices have been attained. On the other hand it was adjudged that hardly any progress was made in mechanization such as in number of tractors and drainage facilities.

4. Recent Agricultural Production Level

Progress in "Four Changes" i.e., mechanization, electrification, improvement in irrigation and in increase of chemical products, does not

correspondingly reflect increase of agricultural production for the same year. The actual production is governed also by such other factors as weather conditions and the will to work on the part of the laborers.

Information concerning agricultural production for 1965 remains somewhat hazy. The 1966 New Years editorial of the People's Daily stated that "For 1965, our agricultural production exceeded the preceding year for the fourth consecutive year." However, it added that the actual production for the year was less than that for 1964.

Of the limited number of reports available on the actual production of agriculture for the year 1965, comparatively organized information was disclosed by Wu Chen, Deputy Director, Department of Agriculture, during his interview by a correspondent of the China News (China News Agency, 25 December 1965) and from which the following pertinent information was extracted:

In tone similar to that voiced in the New Years editorial of the People's Daily, Wu Chen initially stated that the "agricultural production in China for 1965 surpassed that of the preceding year for the third consecutive year since 1962." He stated that "Food production, cotton, farm products for oil, and other economic products all showed over-all increase in production. There has been an increase in live stock (cattle, horses, donkeys, and mules) and in pigs, sheep, and domestic fowls and an overall increase in agricultural products from the previous year. Summer crops such as wheat showed 15 per cent increase over the preceding year. As for the autumn crops, except for the certain areas, they, too, showed an overall increase from the previous year. Cotton production showed somewhat a greater increase than food production and in both total amount of crop and yield per unit surpassed the previous records." The special feature of Wu's interview was that except for Wu's disclosure of some increase in wheat and cotton production, he failed to mention specific increases in other productions. Thus our approach to the problem must necessarily assume the form of generalities.

The problem is did the 1965 production actually surpass that of the previous year? Some question arises from the fact that Wu, during his interview, provided some specifics regarding the increases in summer production but remained rather vague concerning the autumn production. A question thus arises that although there was an increase in summer production, the important autumn production proved a failure and that the overall production for the year might not have reached that of the preceding year. Even an NCM article published at the end of 1965 (31 December 1965 edition) reported that "the autumn production suffered nation-wide because of the flood and draught." Concerning the summer production, the article reported that "the rice had a bumper crop and other main products exceeded both in production per hectare and in total

amount, surpassing the records of 1964."

In fact, news from the mainland and up to the summer of 1965 until the National Day (1 November) published numerous reports concerning bumper crop, however, about the time of the National Day, usually announced, news making reference to a bumper crop or a record and far in between.

The basis for the assessment that the agricultural production for the year 1965 did not approach that of the previous year is indicated in the fact that the National People's Congress for the year was not convened. In the past the only time the National People's Congress was not held since the founding of the Communist regime in China was in 1961 when the country was faced with a serious economic disaster. Judging from this fact, the seriousness of the economic plight for 1965 was obvious. It could be said that a National People's Congress Standing Committee conference was held on 20 November 1965 to hear a report concerning national agricultural situation and to decide whether or not to convene a National People's Congress based upon the report furnished. It can also be assumed that due to the unexpectedly adverse report concerning the agricultural situation, the Standing Committee members decided to postpone the National People's Congress.

Also in reference to the interview of Wu mentioned previously, the fact that Wu "emphasized" the adverse weather condition could be interpreted that the agricultural production for 1965 was poor. According to Wu the natural condition for the year 1965 was as follows:

In many northern areas, draught conditions prevailed because of lack of snow and rain from November 1964 to the early part of April 1965. Even during the summer months much dry spell prevailed in the North China region, and this dry spell which extended into the autumn was the most severe one in the last several ten years. In contrast to the above, the weather condition in South China was relatively favorable, but still the spring and autumn temperatures were too low, adversely affecting in the seeding and harvesting of paddy rice. In some areas rice paddies were damaged because of excessive rain, and winds as well as from frost and harmful insects.

Noted was almost a total absence in announcements concerning amount of production for various agricultural products. By collating various news of Communist China, the products which could definitely be stated to have increased in 1965 over that of 1964 were wheat, cotton, leaf tobacco, raw materials for sugar and in number of pigs among the live stock. Among the aforementioned products, wheat production amounted to 15 percent over the previous year and cotton by several hundred piculs more than that of 1964 and that the latter was the highest recorded in

history. (Economic Review, 1 January 1966). It was reported that rice cotton production for the year 1964 surpassed the production for the year 1957 (24.3 billion pounds) in terms of amount, and for the 1965 production was such that the increase was probably less than 1964's level. In announcement of production results in 1965, the paper said that of the total food production, the increase was only 1.5 per cent over the year 1964, to only a small contribution to the total food production. The most important grain, rice, was increased by 1.5 per cent, and the increase was appreciated by the fact that the total rice production for the year 1965 has been no increase over the year 1964. In fact, in the rice production, the increase was only 1.5 per cent over the year 1964, which appeared in the paper (Economic Review, 1 January 1966). It stated that "During 1962 to 1965, China enjoyed four consecutive years of bumper rice crop and the amount of increase in rice production during the period amounted to 30 per cent of the total increase in the grain production." The fact that it avoided mentioning any increase over the 1964 production and the fact that the autumn harvest was generally poor in comparison to the previous year indicated that the rice production for 1965 probably did not reach the 1964 level.

Concerning soybean beans, an important product for oil, the NCM Harbin dispatch (22 November 1965) reported as follows: "This year's soybean crop yields from the more than 1.3 million hectares of the main soybean growing area of Heilongjiang Province was relatively high. Both in the total production and in yield per unit, the amount surpassed those of the previous year." The fact that this announcement pertaining to increase was made in such a conservative tone, indicated in itself, that the amount of increase was barely over that of the previous year.

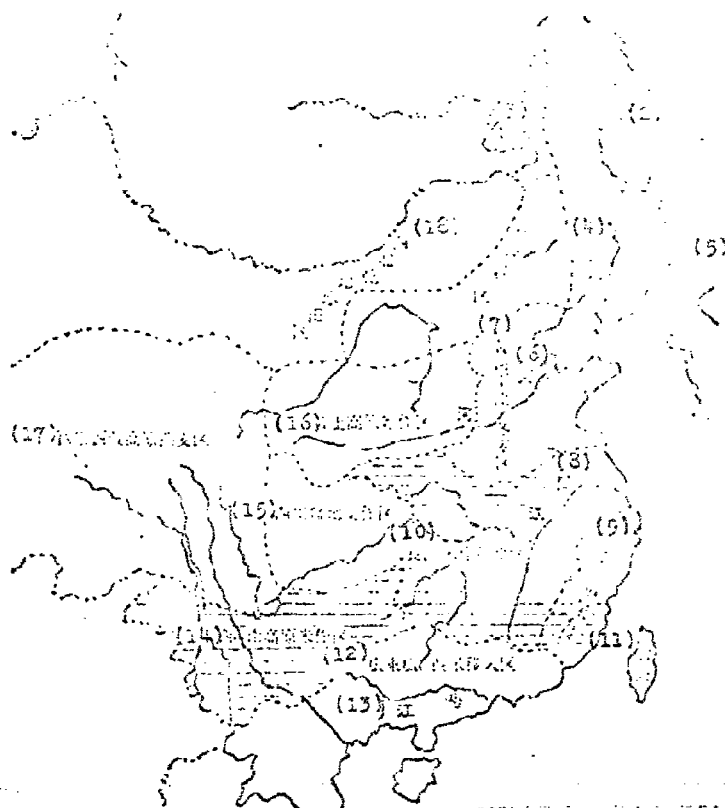
The NCM further announced that leaf tobacco production "increased nation-wide over the preceding year" and that the total production of raw material for sugar is believed to be more than 30 per cent over the 1964 bumper crop." (NCM, 18 November 1965) "The number of pigs is the highest in the last 10 years." (Economic Review, 1 January 1966)

An estimate of agricultural production for 1965 as indicated on Table No. 5 was based upon the aforementioned news information and the previous estimates made by this author for the year 1964. The figures listed in Table No. 2 were those published in the Eastern Economic Review (whose over-all estimated figures are lower than those of this author). They may also be used as basic figures.

Finally, for data announced by the United States Department of Agriculture in November 1965 are listed as reference (World News, 14 December 1965): (1) Although the food production in Communist China made a sizeable gain in 1962 over 1961, it has remained in the vicinity of 180 million tons per year since that time.

(2) Because of draught in North China the production of wheat for 1965 was less than 1964. It is anticipated that potato production will also be less because of decrease in planting acreage and diversion of some farm land for planting of peanuts. (3) The soya bean production is anticipated to be only fair and will be less than the 1964 production and the annual average for the period 1953 - 1957.

(1) Figure 1 - Major Agricultural Regions of China and the
 (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18)



2. Northeast Grain Producing Area
3. Gold Vordure Region Outside The Farm Belt
4. Lao River
5. Yalu River
6. Yellow River
7. Yellow River Basin Winter Wheat Belt
8. Yangtze River
9. Chekiang-Fukien Maritime Rice Producing Region
10. Yangtze River Rice Producing Region
11. Taiwan
12. Kwangtung-Kwangsi Rice Importing Region (Sic)
13. Hsi River
14. Southwest Plateau Rice Cultivation Area
15. Szechwan Basin (Rotational) Cultivation Area
16. Loess Plateau Mixed Cultivation Area
17. Sining - Tibetan Plateau Oats Belt
18. Northwest Dry and Wet Rice Field Area

(1) Table No. 1 Areas of Cultivation of Various Crops

(2) (unit: 1 million hectares)

(1) 主要作物の作付面積

(2) (単位: 100万ヘクタール)

(3) (4) (5) (6) (7) (8) (9) (10)

	1953-57 の平均	1953-57 (B)	1953-57 (C)	C/A	C/B
(6) 米	30,354	28,200	29,810	97	105
(7) 小麦	26,081	24,200	25,600	98	105
(8) 雑穀	51,582	53,000	52,500	102	99
(9) 豆	10,067	13,300	12,300	121	91
(10) 合計	118,837	118,700	120,010	101	101
(11) 綿	5,689	4,156	4,467	79	107
(12) 大豆	12,134	8,000	8,600	71	107
(13) 花生	2,178	1,620	1,880	86	116
(14) その他	2,612	1,330	1,510	73	114
(15) 雑	1,035	688	700	68	103
(16) 合計	141,905	134,486	137,157	97	102

17) (注) 1. A欄は「偉大な十年」による。

2. その他は非公式推計。

18) (出所) Far Eastern Economic Review, 1966
Yearbook.

(3) Average for 1953-57

(4) Year

(5) Comparison

(6) Rice

(7) Wheat

(8) Grain

(9) Potatoes

(10) Total food products

(11) Cotton

(12) Soya Beans

(13) Peanuts

(14) Rape Seed

(15) Sesame

(16) Grand total

(17) Notes: 1. A column based upon the "Great Ten Years"

2. Remaining figures are unofficial estimates

(18) Reference

(1) Table No. 2 Volume of Principle Products

(2) (unit: 1,000 tons)

- (3) Average for 1953-57
- (4) Year
- (5) Comparison
- (6) Rice
- (7) Wheat
- (8) Grain
- (9) Potatoes*
- (10) Total grain product
- (11) Cotton
- (12) Soya Beans
- (13) Peanuts
- (14) Cotton seed
- (15) Rape seed
- (16) Sesame
- (17) Notes: * 4 of potatoes were calculated as 1 of grain
- (18) Reference

(1)		(2)		(3)		(4)		(5)	
				1953-57		1958		C/A	
				(6)	(7)	(8)	(9)	C/B	
(6)	米	77,370	73,400	82,030	105	105			
(7)	小麦	22,510	21,830	23,100	102	105			
(8)	穀類	52,150	54,600	53,100	106	101			
(9)	いも・芋類	19,200	24,300	22,500	117	93			
(10)	穀物合計	171,930	179,100	182,700	106	102			
(11)	綿花	1,363	1,020	1,250	91	123			
(12)	大豆	9,655	7,800	8,600	89	110			
(13)	落花生	2,674	1,930	2,290	86	121			
(14)	綿子	2,737	2,040	2,500	91	123			
(15)	なたね	911	540	600	72	123			
(16)	ごま	373	240	310	83	129			

(17) (注) ※いもは4を穀物として換算。

(18) (出所) Far Eastern Economic Review, 1966 Yearbook.

(1) Table No. 3 Indicators and Realization of Agricultural Modernization

(1) 33 現代化指標

(2) 区	分(3)	現代化指標(4)	需要量(5)	達成率(6)
(6) 機械動力	(7)	10,000戸あたり80馬力	(8) 13,000万馬力	
(9) トラクター	(10)	1,000戸あたり1台	(11) 80,000台	(12) 123,000台
(13) トラック	(14)	4,000戸あたり1台	(15) 400万台	
(16) 灌漑排水機械	(17)	10,000戸あたり1馬力	(18) 2,000万馬力	(19) 730万馬力
(20) 化学肥料	(21)	10,000戸あたり30斤	(22) 2,400万斤	(23) 2500万斤(含輸入)
(24) 農業用電力	(25)	10,000戸あたり8kw/h	(26) 8000kw/h	(27) 32.2億kw/h
(28) (注) (a)は国研院の論文(人口地理学第93号)による。 (b)は国研院の論文(人口地理学第93号)による。 (c)は国研院の論文(人口地理学第93号)による。				

- (2) Items
- (3) Indicator for modernization (1)
- (4) Total needs (2)
- (5) Holdings (Year 1964) (3)
- (6) Machine power
- (7) Per 10,000 ho* 200 hp
- (8) 130 million hp
- (9) Tractor
- (10) 1 tractor per 1,500 ho*
- (11) 800,000 tractors
- (12) 123,000 tractors
- (13) Truck
- (14) 1 truck per 4,000 ho*
- (15) 400,000 trucks
- (16) Irrigation and drainage machinery
- (17) 1 hp per 40 ho*
- (18) 20 million hp
- (19) 7.3 million hp
- (20) Chemical fertilizer
- (21) 30 lbs per 40 ho*
- (22) 24 million tons
- (23) 6.8 million tons (includes import)

- (24) Electrical power for agricultural usage
- (25) 1 kw/h per 1 ho*
- (26) 8 billion kw/h
- (27) 3.22 billion kw/h
- (28) Notes
 - (1) Data from the thesis by LIU Jih-hsin (People's Daily, 20 June 1963)
 - (2) Calculations based upon: 1.6 billion ho (Chinese ho) of cultivated land 1.2 billion ho of cultivated land where tractors can be used. 0.8 billion ho of land for use of irrigation machines
 - (3) Extracted from Chicom's Economic Power, published by the Kashira Research Center

(* 10 Japanese ho is 0.245 acre)

(1) Table No. 4 Mechanization, Employment of Chemicals,
and Electrification

(1)	(2)	(3)	(4)	(5)	(6)
(7)	(8)	(9)	(10)	(11)	(12)
トラクタ	15馬力	34,029	37.7	123,000	123,000
標準トラクタ	15馬力	56,337	13	730.0	730.0
化学肥料	10,000トン	191,457	3	240.0	240.0
国内産	10,000トン	63.7		500	500-600
輸入	10,000トン	131.3			
電力	10,000kw/h	14.9		30.0	45.0
農村地域	10,000kw/h	1,457	23	32.2	39.0

- (2) Unit
- (3) 1957 Results
- (4) Circuit Report
- (5) 1964 Estimate
- (6) 1965 Estimate
- (7) Farm tractors
- (8) Standard tractor 15 hp
- (9) 1957
- (10) Irrigation/drainage facilities
- (11) 10,000 hp
- (12) Supply of chemical fertilizer
- (13) 10,000 tons
- (14) Approximate
- (15) Domestic product
- (16) Import
- (17) Agricultural chemicals
- (18) Consumption of electrical power in rural community
- (19) 10 million kw/h

Table No. 5 Recent Agricultural Production Level

(1) 1957 Results		(2)	(3)	(4)	(5)
(6) Main agricultural products (unit - 10,000 tons)		(7)	(8)	(9)	(10)
(11) Food product	(12) Exceed 1957	(13) Cotton	(14) Same as above	(15) Soya beans	(16) Peanuts
(17) Sesame	(18) Leaf tobacco	(19) Sugar cane	(20) Livestock (unit - 10,000 heads)	(21) Large livestock	(22) Sheep
(23) Pig	(24) Notes:	(25) (1) 1964 estimates were extracted from Chiaoan's Economic Power published by the Tachina Research Center.	(26) (2) Figures given for 1964 and 1965 are all estimates.	(27)	(28)

- (3) 1957 Results
- (3) Chou En-lai's Report
- (4) 1964 Estimate
- (5) 1965 Estimate
- (6) Main agricultural products (unit - 10,000 tons)
- (7) Food product
- (8) Exceed 1957
- (9) Cotton
- (10) Same as above
- (11) Soya beans
- (12) Peanuts
- (13) Sesame
- (14) Leaf tobacco
- (15) Sugar cane
- (16) Livestock (unit - 10,000 heads)
- (17) Large livestock
- (18) Sheep
- (19) Pig

Notes: (1) 1964 estimates were extracted from Chiaoan's Economic Power published by the Tachina Research Center.
 (2) Figures given for 1964 and 1965 are all estimates.