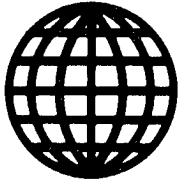


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No 3, 1 February 1988

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Successfully Build Up the Xiamen Special Economic Zone

HK010801 Beijing HONGQI [RED FLAG] in Chinese
No 3, 1 Feb 88 pp 2-7

[Article by Zou Erjun [6760 1422 0971], mayor of Xiamen]

[Text] More than 6 years have passed since construction of the Xiamen Special Economic Zone started in October 1981. Although 6 years is a very short period in the long river of history, great changes have taken place in Xiamen in this time. The development of the special economic zone has changed Xiamen from a closed coastal defense city into an open special zone, in which various undertakings have been developing at an unprecedentedly high speed. Over the past 6 years, the gross industrial and agricultural output value and revenue of our city have increased by 200 and 250 percent, respectively; and foreign exchange earned from exports has increased by more than 200 percent. At the same time, we have made use of more than \$300 million of foreign capital. Profound changes have also taken place in the people's ideological concepts and mental attitude during reform and opening up. An atmosphere of blazing new trails and making courageous advances is being shaped. The past 6 years have been the best in Xiamen's history with regard to its political and economic situation, its contributions to the state, and the improvement in the people's livelihood. Reform and opening up have fully displayed the advantages of the socialist system.

Thanks to the guidance of the correct line mapped out since the 3d Plenary Session of the 11th CPC Central Committee and the powerful support of the people throughout the country, the Xiamen Special Economic Zone has been able to make the above achievements in a comparatively short period of time. This is also a result of our continuous efforts to explore ways to build a Chinese-style economic zone in light of Xiamen's real situation.

I

In history, Xiamen was once a famous commercial city "with its buildings sheltering customers from five continents and its gates taking in guests from afar who came by sea." However, for various reasons, Xiamen's construction developed slowly in the past 50 years or so. When the construction of the special zone started, the city's basic facilities were unsuited to development. After the special zone was established, in view of the reality, we started with the construction of basic facilities and quietly immersed ourselves in hard work for nearly 3 years. We built four 10,000-ton class deep-water berths in the Dongdu Harbor, expanding the handling capacity of the Xiamen port by 100 percent. We built Xiamen International Airport, which now has 16 air lines with 70 scheduled flights a week, transporting some 500,000

passengers a year. We imported program control telephone equipment and instituted direct dialing with 119 domestic cities and 18 countries and regions. The expansion of the running water plant doubled the water supply capability on Xiamen Island. At the same time, we developed some new zones, including the Huli Industrial Zone and the Yuandang and Eastern Development Zones, doubling the size of the urban area. The total investment in the city's capital construction over the past 6 years since the establishment of the special zone is 350 percent higher than the total investment in the previous 31 years. Of this investment, some 724 million yuan has been used in the construction of basic facilities. At the beginning, some people did not quite understand this, saying that we had been "digging the mountain ceaselessly." But later developments proved that we were correct. Good basic facilities are an important prerequisite for attracting foreign investment. If we had not been "digging the mountain ceaselessly," there would not have been prosperous development later with the introduction of foreign capital.

In capital construction, we adhered to the principle of acting according to our real capability. In the initial period, although the area of the special zone was just 2.5 square kilometers, we still had it developed in two phases, so that it could be developed step by step from small to big. There have been no great fluctuations in these years in capital construction. In developing the new zones, we have achieved very good economic returns from the investment. "Once an area has been opened up, it can be successfully built into a development zone and relevant returns yielded." Since its establishment, the Huli Industrial Zone has absorbed investment totaling 300 million yuan and established 62 enterprises; it has fulfilled a total of more than 300 million yuan of profits and tax (including tariff) over the past 6 years. To date, the recovery rate of investment in capital construction of the Xiamen Special Economic Zone has reached 81.77 percent.

II

The improvement of the basic facilities in the special zone has provided indispensable "hardware" to attract foreign investment. However, with the "hardware" alone, the environment for investment is still imperfect. There are other indispensable factors in attracting foreign investment, such as high-quality personnel, perfect legal system, effective services, and other "software." For this reason, while carrying out the construction of the basic facilities in the past few years, we have also firmly grasped the construction of various "software" and made continuous efforts to improve the investment environment.

The training of personnel is an important aspect of the construction of "software." From the very beginning of building the special economic zone, we have been grasping this work firmly. Before the special economic zone was established, there were already five institutions of

higher education and nine special or technical secondary schools in Xiamen. This was comparatively good at that time compared with similar cities in China. However, we still felt that they were unable to match the development of the special economic zone. In particular, there were not enough specialized personnel for us to carry out the policy of opening up to the outside world. For this reason, we regarded the training of personnel as a type of "capital construction" and carried it out in conjunction with the construction of the special zone.

Over the past few years, we have collected funds to establish a multichannel, multilayered, and multiform education network, including Lujiang Professional University, Xiamen Economics College, the Xiamen School of TV University, the City Cadres' School, and the Spare-Time University of Workers. At the same time, we asked Xiamen University and other institutions of higher education to help us train professionals such as foreign language, international accounts settlement, and computer personnel. A school has been jointly set up by the party school of the city party committee and the Economic and Trade University to train foreign trade cadres. Since the special economic zone was established, our city has trained a total of 6,300 cadres who have been educated in universities or colleges (not including those who were trained in the universities and colleges run by the central and provincial authorities in our city). This is more than the total of the university and college graduates who have been assigned to our city by the state and those who have been invited to our city. According to a census, for each 10,000 people, the number of people who have a level of higher education in Xiamen is 600 percent higher than the national average. In reform of the structure of secondary education, the proportion of professional education has been appropriately increased. Senior professional secondary education has been established in 21 secondary schools of our city, which have a total of 42 professions and 114 classes. The students studying in these classes made up 41.6 percent of the total senior middle school students. At the same time, 12 professional training centers and 34 spare-time secondary schools have also been established. They have trained large numbers of young workers for the special zone who have special skills and are cordially welcomed by the enterprises. We have also provided in-service training for cadres. The city economic and trade committee has run several classes to train Chinese managers for "the three kinds of partially or wholly foreign-owned enterprises." Over the past year or so, there has been a "reading craze" and a "science and technology craze" in our city, which are still in the ascendant. In 1985, many young and middle-aged workers worked very hard to make up for their missed cultural and technological lessons. Since then, more than 60,000 workers have entered all kinds of adult schools to engage in further studies. Meanwhile, we have also invited more than 4,000 technical cadres and administrative cadres from other parts of the country to work in our city.

Having summed up our experiences in personnel training over the past few years, we feel that attention should

be paid to the following five questions: 1) Since personnel training takes quite a while, it is necessary to grasp the training as early as possible. 2) The training should be geared to the needs of the special zone and offer courses suited to the demands of the special zone. Both Lujiang University and the professional secondary school are offering courses suited to the demands of the special zone and are training people according to their professions and trades. The graduates from these schools are much welcomed by the units employing them. 3) It is necessary to pay attention to carrying out multilayered training. In other words, it is not only necessary to attach importance to the training of senior technological personnel, but also to pay attention to the training of medium-level technicians, to the development of professional education, and to the improvement of the quality of the workers' contingent as a whole. 4) It is necessary to fully exploit the initiative of various quarters in running schools. Most of the schools set up in the past few years were established with subsidies provided by the state and the city's financial departments and investments by the employer units (enterprises). In vocational education, the method of running schools through the joint efforts of the departments in charge, the enterprises, and the schools, has mainly been adopted in order to solve the problems of funds, school buildings, and teachers. 5) In personnel training, it is necessary to adopt the method of sending people out and inviting people in. Over the past 4 years or so, our city has sent some 500 people in more than 70 groups to over 10 countries and regions for training. At the same time, some 300 specialists and scholars have been invited to our city from abroad to lecture and offer guidance on our management and technological projects.

Personnel training is long-term "capital construction." It cannot be done all at once. Although great efforts have been made in this respect, they are still insufficient. At present, we are badly in need of the people who are skilled in three professions (namely, economists, accountants, and lawyers) in our foreign economic affairs. Many children of foreign businessmen are still unable to attend school, and this problem has not yet been well solved. Therefore, it is necessary for us to make greater efforts to solve the problem of education.

In the building of the legal system, while actively implementing various laws and regulations of the state, we have worked out six special laws and regulations in light of the demand of opening up to the outside world, and they have been put into effect after being examined and approved by the standing committee of the provincial people's congress. To strengthen the enactment of laws and regulations, the city government has also established a "regulation and law bureau."

In implementing the State Council's preferential policies for foreign investment, we have mainly solved the problems of management and service. Our good service and low charges have made the Xiamen Special Economic Zone more attractive to foreign investors.

III

To gradually establish a management system to suit the economic development of the special zone is also an objective demand of improving the investment environment and expanding opening up to the outside world. Over the past few years we have carried out a series of reforms on the existing economic structure in light of the needs of the development of the special zone. 1) We have smashed the closed and domestic-oriented economic pattern of the past, which was characterized by the separation of departments and regions, and gradually established an open and export-oriented economic system. Lateral economic ties have also been greatly strengthened. 2) We have improved macroeconomic management, changing direct management by the government mainly through administrative measures in regulating and controlling the economy to indirect management mainly by means of various economic, legal, and necessary administrative measures. The original 60-plus mandatory production plans have been reduced to 6, and the proportions of raw materials the enterprises directly obtain from the market and the products directly sold by the enterprises are respectively 70 and 90 percent. A mechanism characterized by "the government regulating the market and the market guiding the enterprise" is being shaped. 3) We have changed the unitary public ownership into the coexistence of diverse economic sectors and forcefully promoted the development of wholly foreign-owned enterprises and joint ventures. In 1987, the total industrial output value of these two kinds of enterprises already made up one-third of the city's total industrial output value. 4) We have simplified administration, transferred power to the lower levels, and enlivened the enterprises in accordance with the principle of separating the two powers. Last year, following the overall implementation of the contract managerial system in the city's commercial and grain departments, more than 90 percent of the state-owned industrial enterprises also signed contract agreements, which brought about profound changes in the enterprises' managerial mechanism. 5) We have carried out reform of the price control structure, changing the past unitary and fixed price system into a new price system combining floating prices, market prices, and fixed prices and with the regulation of the socialist market as the main body. An open, multilayered and multichannel circulation system with fewer links has basically been established. 6) We have reformed the foreign trade structures. The number of enterprises engaging in foreign trade has increased from 8 to 139. Under the unified guidance of the state's policies, a state of competition and cooperation between the professional companies of the state, local foreign trade companies, and production enterprises which have the right to import and export has been created, which has accelerated the pace of converting the special zone economy into an export-oriented economy. 7) We have established a multilayered and open financial system in the special zone with the people's bank as the center and the state's professional banks as the main body, including wholly foreign-owned

banks, Sino-foreign joint banks, local financial institutions, and city credit cooperatives. We have also established a foreign exchange accommodation center and have adopted the joint-stock system and issued bonds on a trial basis, so as to find more channels for fund accommodation. 8) We have adopted the contract labor system in all enterprises and institutions. Over the past few years, a total of 21,600 contract workers have been recruited. The form of distribution has also been changed from the past unitary form into diverse forms of distribution, which reflect the principle of awarding the diligent and punishing the lazy and the principle of work more, get more. The social insurance system, including an overall arrangement for the workers' pensions, has also been widely adopted to help the workers get rid of any fears about disruption of support services. 9) We have opened the market for building and adopted the systems of bidding and contract in both designing and construction, so that the construction costs can be reduced and the quality can be improved and so that the pace of capital construction of the special zone can be accelerated. 10) In rural areas, on the basis of implementing the system of contracted responsibilities with payment linked to output, we have gradually readjusted the production structure in light of the demand of developing the commodity economy and the export-oriented economy and have been following the path of intensive farming. Over the past 6 years, the number of rural laborers engaged in secondary and tertiary industries has increased by more than 500 percent, the total income of the township and town enterprises has increased by more than 300 percent, and the comprehensive commodity rate of agricultural products has reached 73 percent. There has also been a considerably great increase in the foreign exchange earned through exporting agricultural products.

The reforms in the above-mentioned 10 fields have vigorously buffeted the rigid old structure and brought a series of important changes to the special zone's economic organizations and operational mechanism. A new structure that suits the economic development of the special zone and is full of vigor and vitality is being shaped.

IV

With the improvement of the investment environment, good conditions have been created for introducing foreign capital. Since 1984, the number of foreign businessmen coming to discuss matters of investment and cooperation has been increasing rapidly. In the past, since few foreign businessmen came to Xiamen, we did not have sufficient choice in importing foreign capital. Later, after making inspections in our city, the central leading comrades clearly pointed out: Establishing the special economic zone is not merely aimed at increasing some output values and solving some employment problems but is chiefly aimed at introducing advanced technologies from abroad so that the gap between our country and the developed countries can be narrowed. According

to this instruction, we have gradually established a guiding ideology of mainly developing the three types of enterprises, namely, the production, technologically advanced, and export-oriented enterprises, and striving to combine the import of advanced technology with the actual needs of our country.

In the industrial setup, the development of industry is our main task. At the same time, we have also developed tourism, commerce and trade, finance, real estate, and other businesses. Industrial development in Xiamen has quite a good foundation. In addition, there are many universities and colleges and scientific research institutes in this city, and the cultural quality of staff and workers is comparatively higher. Thus, there are many advantageous conditions for Xiamen to develop industry. What is more important, only when priority is given to industrial development can we introduce more advanced technologies from abroad, can Xiamen give play to its role as a "window," and can the development of other businesses be promoted. Of the investment contracts signed with foreign firms, more than 65 percent are productive projects. In particular, of those signed in the past 2 years, more than 85 percent are productive projects. In 1987, the gross industrial output value of wholly foreign-owned enterprises in our city reached more than 900 million yuan, making up more than one-quarter of the city's gross industrial output value.

In technological makeup, we have imported mainly advanced technologies with practical applications while at the same time importing some newly emerged technologies. A multilayered and ladder-shaped new makeup, which is characterized by taking the newly emerged technologies as the guide and practical technologies as the main body, has been shaped. Technologies of most of the industrial projects imported in the past few years are those that were advanced technologies at the end of the 1970s and beginning of the 1980s. Some of them have filled in the gaps in our domestic technological field, and some of them have been assimilated and digested and gradually spread to the inland areas, which helped narrow the gap between China and the developed countries in these fields and played an initial role as a "technological window."

Expanding export to earn more foreign exchange and developing the export-oriented economy are also important conditions for us in selecting import projects. Fundamentally speaking, the economy of the special economic zone should be an export-oriented economy facing the international market. However, in the early stages, we did not pay sufficient attention to this. Later we gradually realized that if we did not expand export to earn more foreign exchange, we would be unable to have balanced foreign exchange in enterprises and our effort to open up to the outside world would also be restrained. According to contracts signed with foreign firms in the past 2 years, more than 80 percent of the products of imported projects should be sold outside. We have also made great efforts to help some projects which were

imported earlier adopt Chinese-made components and other devices as soon as possible so that they are no longer reliant on the outside. After importing color TV and radio recorder production lines, the Xiahua Electronics Company also established 11 factories to produce necessary components and accessories. At the same time, it made great efforts to promote associations with other companies of the same trade and increase the percentage of Chinese-made components and accessories used in the company. It has also tried to increase the competitiveness of its new products. The quality of the color TV sets it produces is accepted by the United States, Great Britain, and Japan, and its products are sold in 11 countries and regions. Through our efforts in the past few years, the percentage of the products of wholly foreign-owned enterprises in our country which are sold abroad has been increased from 19 in 1985 and 46 in 1986 to over 50 in 1987.

V

After the area of the Xiamen Special Economic Zone was extended from 2.5 square kilometers to the whole island, it was faced with an arduous task of transforming more than 400 old enterprises in the urban area. This was a great difference between Xiamen and the other three special economic zones. The equipment of those enterprises was rather outdated, their technology was rather backward, and their products lacked competitiveness. However, they constituted more than 80 percent of the city's financial income, foreign exchange earning, and employment capabilities. In other words, whether those enterprises were developed was not merely an economic matter, but also a social problem. In the "Official Reply to the Implementation Measures of the Xiamen Special Economic Zone," the central authorities required that we take the transformation of old enterprises as a major task for the construction of the special zone. Therefore, while continuously importing foreign capital to run new enterprises, we must also make positive efforts to import technology to transform old enterprises. Over the past 4 years or so, our city has invested more than 500 million yuan (including \$59.7 million of foreign exchange) in importing advanced technologies and equipment both from other domestic areas and from abroad to transform more than 200 enterprises. These old enterprises, which have "recovered their youthful vigor" and "become stronger than before," have thus been enabled to continue to play their role as the mainstay in the construction of the special zone. Over the past few years, there has always been a double-digit growth in the industrial output value and tax and profits created by these old enterprises as well as in the foreign exchange earned through their exports. Input and output are in the ratio of 1 to 2.06, and large sums have been accumulated for the special zone's construction.

In our efforts to transform the old enterprises, we have adhered to the principle of "four combinations." First, we have combined the transformation of old enterprises with readjustment of the industrial setup. There were

originally many kinds of industries in Xiamen but none was in a superior and leading position. There were neither sufficient funds nor the necessary conditions for carrying out an overall transformation. For this reason, we selected some industries, such as the electronics, textile, engineering, food processing, and sensitive material industries, which have a comparatively good basis and which can suit the trend of current development, as the main industries to be transformed and adopted measures to promote their systematic and coordinated development with the key enterprises as the main body and the brand-name products and the leading products. Now, an electronics industrial sector with TV sets, video recorders, and radio cassette recorders as the leading products, an engineering (and light) industrial sector with transport vehicles, fork trucks, and bicycles as the leading products, a textile industrial sector with cotton textiles and long-fiber silk as the leading products, a chemical industrial sector with Kodak color sensitive materials as the leading product, and a food processing industrial sector with cans and cigarettes as the leading products have basically been established, bringing about a new production pattern for Xiamen's industry. Second, we have combined technological transformation with structural reforms. The old enterprises have made continuous efforts to improve their internal operational methods by means of the administrative methods of foreign enterprises so as to mobilize the initiative of both the enterprises and the staff and workers and give play to the roles of their advanced equipment. Third, we have combined technological transformation with the development of the export-oriented economy. In our opinion, the technological transformation of the special zone should not merely be aimed at increasing output value and tax and profits but should also be aimed at expanding export and opening up more foreign markets. Therefore, when carrying out technological transformation we have taken as our target enabling the enterprises to produce more varieties of new and superior products and earn more foreign exchange through export and to carry out production in accordance with international standards. Fourth, we have combined the transformation of old enterprises with importing from abroad and cooperating with units in the interior to collect funds from various channels. The task of transforming old enterprises is very heavy for Xiamen. We cannot do it alone. Therefore, we must make sufficient use of the preferential policies for special zones and encourage old enterprises to establish joint ventures and cooperate with foreign investors and to establish ties with other domestic enterprises so as to carry out transformation with both domestic and foreign funds. According to initial statistics, there are old enterprises in 46 percent of the Sino-foreign industrial joint ventures and in more than 70 percent of the enterprises cooperating with units in the interior. Through importing from abroad and cooperating with units in the interior, the Xiamen Bicycle Factory has developed itself into a group with a complete plant, two Sino-foreign joint venture companies, and three enterprises cooperating with the interior. Having imported some advanced technologies from abroad,

including electroplating technology from the United States, wheel-making technology from France, and welding technology from West Germany, the enterprise, which was originally in a very difficult situation, has been rejuvenated. Its output has been increasing rapidly over the past year or so and many of its products have been exported. It has really become the "International Bicycle Limited of Xiamen."

VI

Opening up is a double-oriented and omni-directional action. While opening up to the outside world, we have also made positive efforts to open up to the interior and promote lateral economic ties. In promoting lateral economic ties, we have adhered to the principles of equality and mutual benefit, trying to exploit the special zone's role as a "window" and seek a common development. To date, the city has already established some 700 enterprises cooperating with interior units. With a total registered capital of 1.11 billion yuan, these enterprises have formed an important force for the construction of the special economic zone. Over the past 2 years or so, with the development of the special zone, the development of lateral economic ties has also entered a new stage. First, as the lateral economic ties have been developing from close to remote areas, a nationwide cooperation network, with two areas (Southern Fujian Delta and the Shanghai Economic Development Zone) as the backing and uniting with various departments and ministries (various enterprises directly under central ministries), has been initially established. At present, our city's economic and technological cooperation with interior units involves 26 provinces (municipalities) and 11 ministries. Second, the lateral economic ties have been developed from single-item cooperation to organizing and establishing group companies. At present, a number of group companies, which produce brand-name and leading products and cooperate with hinterland enterprises in production, have been or are being established in our city, such as the Xiamen Wuyi Bicycle Factory, the China Xiamen Engineering Corporation, and the Minnan Textile Group Company. Third, the lateral economic ties have been developed from merely engaging in production and cooperation to jointly carrying out research, striving for common development, and jointly assimilating and digesting imported technologies. The Xiamen Sensitive Material Company has cooperated with the Chinese Academy of Sciences and other scientific research units in tackling difficult problems concerning the technology of producing Kodak color sensitive materials. It has not only helped us solve the problem of using most raw materials produced at home in this production but has also improved China's sensitive material production technology. Fourth, by closely combining cooperation with interior units with importing from abroad, some "Chinese-Chinese-foreign" (meaning the special zone, the hinterland, and foreign investors) enterprises have been established. Most of the major industrial projects established by importing foreign investment are enterprises of this type.

By promoting lateral economic ties and using the funds and resources, especially the intellectual resources, of the hinterland, the special zone has made itself more attractive to foreign investors. On the other hand, through the special zone, which serves as a "window," the hinterland has also promoted its external economic and technological cooperation and export of its products and found a new channel for assimilating, digesting, and gradually transplanting advanced foreign technologies.

VII

In the special economic zone, we have been adopting flexible policies and measures and actively importing foreign funds, technologies, and useful administrative experiences in the economic field, and in the political and ideological fields, we have been adhering to the four cardinal principles to ensure that the construction of the special zone develops correctly.

Since the beginning of 1981, our city has carried out an overall party rectification by three stages to check unhealthy tendencies, correct the guiding ideology for establishing the special zone, and strengthen and improve party leadership over reform and opening up. In the year before last, in accordance with the spirit of the "Resolution of the CPC Central Committee on the Guiding Policy for Building Socialist Spiritual Civilization" and in light of the special situation of the special zone, we worked out some measures for building spiritual civilization in our city during the Seventh 5-Year Plan. At the same time, we held an ideological and political work meeting and a meeting on ideological and political work in foreign-funded enterprises. At present, party, league, and trade union organizations have been established in some 84 percent of foreign-funded enterprises, which are carrying out their work in accordance with the requirements of the party, the league, and the trade unions and in light of the characteristics of the foreign-funded enterprises. They have played an active role in ensuring the implementation of the policy on opening up, promoting the development of production, and protecting the lawful rights and interests of both sides. Therefore, they are widely welcomed by the enterprises.

We have taken severe measures against all kinds of serious criminal activities and carried out law-popularization education among the broad masses of cadres and people in our city. As a result, their awareness of law has been greatly strengthened. The improvement in both social order and public security has provided a very good environment for reform and opening up.

Since the establishment of the special economic zone, we have also carried out extensive education among the masses, especially among youngsters, in ideals and discipline and in the "five stresses, four beauties, and three loves," and in education among cadres and workers in the "four extraordinarities" (meaning, extraordinarily

high consciousness, extraordinarily good style, extraordinarily strict discipline, and extraordinarily high efficiency). In the special zone, good moral concepts and the spirit of blazing new trails and forging ahead are being fostered step by step. Young people are more eager to learn new things than ever before. Some 38 percent of the workers in our city are taking part in all kinds of cultural studies. A generation of new people with "four hates" are constantly emerging. In the conscription work over the past few years, many young people in foreign-funded enterprises have also vied with one another to join the army. They have been commended by the relevant departments.

Facts show that although opening up to the outside world may have brought about some negative things, generally speaking, they have brought about more positive things. The key is that we must grasp two civilizations simultaneously, importing foreign funds and advanced technologies while resisting some negative things.

Reviewing our work in the past 6 years in the special economic zone, we also feel that since we do not have sufficient experiences and knowledge for establishing the special economic zone and "have been groping our way across the river," we have made some achievements but have also made some mistakes. In many fields, there are still great disparities between what we have done and the requirements of the central and provincial authorities. We are still not good at making full use of the preferential policies the central authorities have particularly worked out for special zones. Also, the pace of importing foreign funds is still rather slow, the structural reform still cannot keep pace with the development of the situation of opening up to the outside world, the efficiency of our work is still rather low, some cadres still lack a strong sense of opening up and their ability still does not match the needs of external work, and our legal system is still not perfect. All this should be overcome through our future efforts.

In accordance with the requirements of the 13th CPC National Congress on accelerating reform and expanding opening up, we have worked out the following initial objectives for the Xiamen Special Economic Zone in its intermediate and long-term struggles: The city's gross industrial and agricultural output value will reach 5 billion yuan by 1990 and more than 30 percent of its products will be exported; by 1995, the gross industrial and agricultural output value will reach or exceed 10 billion yuan; and by the end of this century, Xiamen will have been built into a special economic zone which is economically prosperous, and has advanced science and technologies, a beautiful environment, and a high degree of social civilization, and which implements certain policies of a free port.

Strategic Significance of Scientific and Technological Advance

HK100924 Beijing HONGQI [RED FLAG] in Chinese
No 3, 1 Feb 88 pp 8-13

[Article by Yang Rupeng [2799 1172 7720]]

[Text]

I

The third part of the report to the 13th CPC Congress, which concerns strategies for economic development, prominently emphasizes this basic guiding principal and strategic policy: "Give first priority to the expansion of scientific, technological, and educational undertakings, so as to push forward economic development through scientific and technological advance and improved quality of laborers."

Reading and studying this part, we will deeply feel that the report to the 13th CPC Congress has summarized at a higher level major strategic points in China's economic development and the strategic significance of scientific and technological advance. This is a continuation of the relevant expositions made by the CPC Central Committee since the 3d Plenary Session of the 11th CPC Central Committee, and has further developed greatly.

We of course remember the following:

At the national conference on science held in March 1978, Comrade Deng Xiaoping emphatically pointed out on behalf of the CPC Central Committee: "Science and technology are becoming increasingly important productive forces," and "the key to the four modernizations is the modernization of science and technology." ("Selected Works of Deng Xiaoping," pp 85, 83)

The communique of the 3d Plenary Session of the 11th CPC Central Committee read: "We must try to adopt the world's advanced technology and equipment and vigorously strengthen the science and education necessary to achieve modernization."

In September 1982, the report to the 12th CPC Congress for the first time affirmed education and science as important strategic points together with agriculture, energy, and communications.

In October of the same year, in his speech at the national commendation conference on science and technology, Comrade Zhao Ziyang clearly pointed out the strategic principle that "economic construction must rely on science and technology, and science and technology must serve economic construction." He also stressed: "Economic invigoration must rely on scientific and technological advance. This must be affirmed as a basic guiding thinking in our future economic construction." "To lead economic work, we must rely first on policies and second on science and technology."

In October 1983, in a speech on meeting the challenge of the new technological revolution, Comrade Zhao Ziyang pointed out that the new technological revolution "is not only an opportunity, but also a challenge" to our future economic construction. We must put forth correct countermeasures so that China can adopt appropriate measures when a new technological revolution comes and have an opportunity to make rapid development.

Afterwards, the CPC Central Committee time and again reaffirmed the extreme importance of scientific and technological advance in a series of documents.

In September 1985, "The Suggestions of the CPC Central Committee on Formulating the Seventh 5-Year Plan for the National Economy and Social Development" upgraded scientific and technological progress to a higher level: "We must fully understand the decisive role of the modernization of science and technology in the four modernizations, further implement the policy that economic construction must rely on scientific and technological advance and science and technology must serve economic construction, and truly put the promotion of scientific and technological advance, a fundamental task of overall importance, in a strategic position."

In September 1986, "The Resolution of the CPC Central Committee on Guiding Principles for Building Socialist Spiritual Civilization" accurately expounded the position and role of education, science, and culture in the building of socialist spiritual civilization, and emphatically pointed out: "In building modernization, we must more consciously rely on science, develop the spirit of respecting science and seeking knowledge, and do our utmost to solidly and effectively popularize education, science, and culture among the whole nation and upgrade people's educational, scientific, and cultural levels."

Now the report to the 13th CPC Congress has put scientific and technological advance first in overall economic development, saying: "Scientific and technological advance and the improvement of management will basically determine the progress of China's modernization and the revitalization of our nation hinges upon them."

Since scientific and technological advance is so important, it is naturally very necessary to further discuss and understand the important strategic significance of scientific and technological advance.

II

Scientific and technological advance is a systematic and comprehensive concept. It comprehends the advance and application of scientific and technological theory research; the upgrading of the ability to develop technology; the improvement of the technological foundation

for the national economy, such as technology, equipment, material, and products; the progress of management systems and efficiency; the improvement of service means and the upgrading of service levels; and the upgrading of the laborers' quality and educational level.

From a worldwide perspective, in ancient times, science and technology were mainly used in the production process to promote the development of productive forces through laborers' experience and skills, and had not yet formed an independent intellectual formation and theoretical system. With the publication of Copernicus' "On the Revolutions of the Celestial Spheres" in the 16th century, natural science ended its "childhood" and grew into a systematic and comprehensive science.

In the middle of the 19th century, in the course of establishing the theory of communism, Marx and Engels systematically reviewed productive forces and the relationships of production; studied the history and status quo of the development of science and technology; analyzed the role of science and technology in economic and social development by placing science and technology in the whole process of social and historical development of human beings and nature; drew a scientific conclusion that science and technology are "social productive forces," and brilliantly revealed the social function of science, namely: "Science is a revolutionary force which can promote history." ("Complete Works of Marx and Engels," Vol 19, p 375)

In the past 100 years, and since the 1940s in particular, science and technology have made unprecedentedly great development and are evoking a new technological revolution. Scientific and technological advance is playing a more decisive role in economic and social development.

Scientific and technological advance has become a decisive factor in improving economic results.

This is a comprehensive result directly stemming from scientific and technological advance in all factors of productive forces. First, scientific and technological advance can upgrade the quality of laborers and raise higher demands on the laborers' intellectual quality: "Only by acquiring a higher level of scientific and cultural knowledge, richer experience in production, and more advanced skills can laborers expand their role in modern production." ("Selected Works of Deng Xiaoping," p 85) In other words, laborers' physical and intellectual strengths are being constantly transformed and developed in the process of scientific and technological advance. Second, scientific and technological advance can constantly improve and update means of production. It can perfect the means of production and their related links and fundamentally transform and upgrade their development stage. Third, scientific and technological advance can expand the subject of labor and open up a broad road for mankind in profoundly exploring,

exploiting, and protecting natural resources. In the process of production, man has to a large extent gone beyond the variety and quantity of the original natural resources and put more direct or indirect natural factors into the process of production. Man can now use various synthetic materials (such as plastics, synthetic rubber, and synthetic fibers) and compound materials (such as glass fiber reinforced plastic, alloy steel, and carbon fibers) as the subject of labor to turn out various social products, to expand the use of the subject of labor, and to increase utilization ratio.

Scientific and technological advance can upgrade management level and ability. The important role played by scientific and technological advance in promoting the development of productive forces is realized to a large extent through scientific management. People have now realized that it is not enough to just have sufficient funds, labor, equipment, and raw materials, we must also have correct policy decisions, ideologies, and methods, namely, scientific management. We must scientifically manage and comprehensively apply the theories, methods, and means of modern science and technology, and effectively organize and coordinate laborers' activities, so as to bring into full play the role of human, financial, and material resources and to achieve the best economic results and social benefits. And the upgrading of the leaders' management level depends on the development of management science and on the degree to which we master management science.

Scientific and technological advance can promote transformation and development of the production structure, and make division of social labor become finer and finer and move toward a higher level. In ancient times, scientific and technological levels were low and labor-intensive trades occupied a dominant position in the process of production. The development of modern science and technology has resulted in a large number of capital-intensive trades. At a time when science and technology are highly developed, science- and technology-intensive trades and intelligence-intensive trades are playing a greater role in today's economic life. The new technological revolution has opened up new production fields and departments, and is making scientific research, education, public health, and other service trades, namely, tertiary industry, become the major departments of production, thus promoting the emergence and development of a series of new high-technology trades. Compared with traditional trades, high-technology trades need fewer raw materials, consume less energy, can absorb more information and technology, produce new products more quickly, and achieve better economic results in investment. It will inevitably change the technological foundation of the production structure, make it possible to readjust and change the production structure, and promote the rationalization of the production structure. This determines to a certain extent economic development and the improvement of economic results. **Scientific and technological advance has become a key factor in the economic and social development of the contemporary world.**

The first industrial revolution (from the 1740s to the 1840s) resulted in the invention and use of machines and steam engines. The productive forces created by human beings in those 100 years were larger than the total productive forces previously created by human beings. The second industrial revolution (from the middle of the 19th century to the early 20th century) was marked by the invention and use of the internal combustion engine, and the world's total industrial output value increased by 2,000 percent in some dozens of years. About 5 to 20 percent of the growth of labor productivity of mass industrial production early this century was due to scientific and technological advance, but the rate increased to 60 to 80 percent in the 1970s. Economic contentions between countries and regions are very fierce at present. This contention is in essence a contention in science and technology. More and more countries in the world have treated developing science and technology as a fundamental strategy for their economic and social development, and science and technology have become an undertaking subject to state leadership, control, and intervention. Under such circumstances, scientific and technological advance of course plays a decisive role in the formation and change in the pattern of world competition.

Science and technology have become an important part of the building of spiritual civilization.

"In today's world, science has increasingly become a revolutionary force promoting the advancement of history, and an important symbol of the civilization level of a nation." ("The Resolution of the CPC Central Committee on the Guiding Principle for Building Socialist Spiritual Civilization") The epoch-making progress made by modern science and technology, and in many other fields and the solving of many theoretical problems concerning philosophy, sociology, and economics raised by modern science and technology have strengthened the position of Marxism and are of profound significance to enriching and developing Marxism. The change of the production structure and new concept of science brought by modern science and technology have strongly affected and changed some traditional concepts and the traditional social mentality, thus promoting the establishment of new ideas. The scientific spirit of seeking truth from facts and of innovation which was formed in scientific and technological practice over a long period is a powerful weapon for fighting against ignorance and superstition. Such scientific methods as systems science, cybernetics, information theory, and quantitative analysis have made it possible for people to study and decide many social science, economic, and social problems on a basis of accurate scientific exposition. Meanwhile, as an effective lever in social transformation, scientific and technological advance take an active part in the whole process of social transformation and extensively affect every field of spiritual production and spiritual life. In building socialist spiritual civilization, scientific and technological advance have become an important condition for the people to upgrade their scientific, cultural,

ideological, and moral quality, and can provide the necessary spiritual motive force and intellectual support to the modernization drive.

By summarizing the above three, we can easily appreciate that scientific and technological advance has indeed become the most active and decisive factor in new productive forces, and an essential element in economic and social development.

III

What important significance does scientific and technological progress hold for China's economic invigoration?

First, the focus of contradictions in achieving the second-step target of the strategic plan for China's economic construction is the poor economic results of our economic activities. Only by relying on scientific and technological progress is it possible to ensure sustained development of the national economy at a relatively high growth rate.

In the 30-odd years since the establishment of the PRC, China's economic strength has increased greatly, but we must also be aware of the following: On the one hand, China has a large population and the population is continuously increasing; its arable land area is limited and is continuously decreasing; its natural resources are relatively insufficient; and it is seriously lacking in capital, energy, and materials. On the other, China has uneven development in different economic fields; the vast rural areas and most enterprises have a poor foundation in production technology; there is a low business management level and a shortage of qualified professionals. As a result, the returns on investment and the output value created by an individual laborer in China are much lower than those in developed countries. According to statistics a few years ago, the average labor productivity of a Chinese worker is only 1/53 of that of an American worker, and 1/37 of that of a Japanese worker; but China's consumption of energy in creating every \$100 million of GNP is many times as much as that of developed countries, higher not only than developed countries such as Japan and the United States, but also than developing countries such as India.

Over a long period of time, we have mainly adopted the development strategy of expanding extensive reproduction, namely, increasing production ability to build new projects and plants. This measure is necessary within a certain period of time, and is also effective in promoting economic development. In future, we will continue the planned building of the main parts of new priority industries which have an advanced technological level. On the whole, however, merely relying on this method is inappropriate. Most production units now rely on backward technology, adopt old management methods, and merely seek increases in output and output values. According to the technological and economic targets we have now attained, it is impossible for us to take the

second step of the strategic plan for economic construction. After being put into operation, new plants must also adopt more advanced technology to meet the new situation of a shorter and shorter cyclical period of technological renovation. Otherwise, they will be eliminated. We are thus required to gradually switch taking overall management as the main pattern to taking intensive management as the main pattern in economic development, namely, to promote the improvement of quality and increase in quantity of products by updating equipment, technological transformation, and scientific management and on the basis of improving economic results. In other words, we can upgrade various economic targets to a new level by relying on scientific and technological progress. In this way, our funds, energy, and materials can ensure the fulfillment of our established targets because technological innovation can make up for the inadequacy of energy, materials, and funds. Modern and scientific management can tap the enormous potential and increase economic results many times over. Of the newly increased industrial output value achieved by all localities every year over the past 9 years, 60 percent was due to scientific and technological advance and improved management. In the 9 years since the promulgation of "The Rule of the PRC on Rewarding Inventions," some 1,344 items of 21 groups have won prizes and achieved economic results worth 30 billion yuan.

We must also see that economic activities are a large socialized and dynamic system. They include not only production, but also a series of links, such as market demand, policy decision planning, scientific research, technological exploitation promotion, the research and manufacturing of products, storage and delivery, circulation, service, and construction. In this large system, all are linked to and affect one another. "A slight move in one part may affect the overall situation." Every link is influenced and affected by scientific and technological advance. Only by relying on scientific and technological advance is it possible to promote a benign circle of economic activities as a whole.

Second, a basic characteristic of the contemporary socialized mass production is the expansion of the market, from domestic to international markets. To meet the situation of continuously increasing foreign economic and technological cooperation and foreign trade business, we must build export-oriented economy, learn how to use international resources to open up international markets and increase our ability to export more products and earn more foreign exchange. This determines to a large extent the scope and degree of China's opening up and affects the scale and progress of domestic economic construction. However, the quality, varieties, packaging, and decoration of many of our products have not improved, and our costs are still very high. This prevents us gaining the upper hand in the competition on the international market. Of our exports, less than 10 percent are technology-intensive products, such as mechanical and electrical products, and over 50 percent are

agricultural and sideline products, roughly-processed products, and elementary products. To bring about the change for mainly exporting finished products and precisely-processed products, we must, while vigorously developing labor-intensive products, develop technology-intensive products. Therefore, we must upgrade our scientific and technological level, namely, increase the technological contents of our products; tap the potential of exploiting and utilizing natural resources; strengthen the research, manufacturing, and development of export products; upgrade the quality of our products; reduce costs and consumption; and increase varieties. In other words, relying on scientific and technological progress is a requirement for developing export-oriented economy.

Finally, a new technological revolution is now rapidly developing in today's world. The new technological revolution is a serious challenge to our traditional management system, ideology, and methods, and to our relatively low labor productivity and educational, scientific, and cultural level. If we fail to understand this situation, fail to maintain vigilance, and fail to do all we can to catch up with other countries, then our country and nation will become more backward, and we will not have our due position in the world. We must clearly see the crisis, do everything in a conscientious and earnest way, and exert all our efforts to meet the challenge.

The new technological revolution in the world is a very good opportunity for us. We can take advantage of this to select and apply new scientific and technological achievements, to skip some stages of technical development, to reduce detours, and to race against time. We can also take advantage of economic structural readjustment in developed countries and the fierce competition between them to develop technology, economy, and trade, to bring in the necessary talented people, technology, and foreign capital, and to accelerate technological transformation of the traditional industries. We can also take advantage of advanced means of scientific education to accelerate the cultivation of more professionals. Opportunity knocks but once, so we should not let it slip.

In short, as was penetratingly pointed out in the report to the 13th CPC Congress: "Modern science and technology and modern management are the decisive factors in improving economic results and the principal means of enabling the economy to advance to a new stage of growth."

IV

To accelerate China's scientific and technological advance, we need to do a lot of work and make strenuous efforts. At present, we must pay special attention to solving the following problems:

1. We must truly attach importance to scientific and technological advances in ideological understanding.

At present, quite a few comrades, some comrades in charge of economic work in particular, have not truly attached importance to scientific and technological advance in ideology. They hold: "We can also engage in production without relying on scientific and technological advance." So they are not interested in modern scientific and technological knowledge, and lack a sense of urgency. To make our comrades truly understand and accept the strategic principle of scientific and technological advance, we must first earnestly study and understand the report to the 13th CPC Congress and the relevant expositions in central documents since the 3d Plenary Session of the 11th CPC Central Committee; publicize the decisive role of scientific and technological advance in economic and social development; and further create a good custom and environment for respecting science and knowledge and for studying and researching modern scientific and technological knowledge in the whole party and society. In a certain sense, this is an extensive and profound ideological revolution, which can only be properly conducted with a reform spirit. We must use reform and opening up to broaden the people's horizon, so that they can understand and study the far-reaching significance of scientific and technological progress to economic and social development. We must also use many vivid and irrefutable facts, and particularly the great achievements made by China in economic construction over the past 9 years, to explain that scientific and technological advance has become a decisive factor and strategic resource for improving economic results and creating wealth.

Of course, in attaching importance to scientific and technological advance, we cannot be overanxious for quick results and must seek truth from facts. Some comrades wish to change the backward situation overnight, so they put undue stress on the newest technology and automation, fail to conduct in-depth investigation, pay no attention to practical results, and rush headlong into mass action. The desire of these comrades may be good, but what they do is divorced from reality and would only result in haste bringing no success. Such superficial shows as "the big leap forward" and "surpassing Britain and catching up with the USA" in the past have given us many bitter lessons and we must not follow the same old disastrous road. We must learn how to act in accordance with scientific laws and the objective law of economic development and, in accordance with the practical situation in China and our own units and under the guidance of the state's unified plans and policies, formulate concrete plans and measures suited to our own situation. We must adopt scientific and technological knowledge and management methods which can meet our requirements and must make solid efforts to accelerate scientific and technological progress.

2. We must grasp and tackle key technological problems in national and local economic development, and rationally arrange in-depth disposition of scientific research.

The most important task of scientific and technological work is to reinvigorate the national economy. In view of

this, the report to the 13th CPC Congress called for properly arranging in-depth disposition of scientific research and for promptly applying scientific research achievements to production and construction. On the one hand, we must select some key technological problems which are economically very useful in transforming traditional agricultural technology and developing the rural economy and make joint efforts to tackle the problems, so as to stimulate the modernization of industrial technology and equipment of large-scale production, to accelerate technological transformation in enterprises, and to promote rural economic development. On the other hand, we must organize competent people and lose no time in conducting high-technology research, strengthening basic scientific research, and developing soft science, so as to promote the development of the whole national economy.

At present, we still have quite a few obstacles in applying scientific research achievements to production and construction. Many enterprises are inactive in technological innovation, and rest content with the status quo, namely, "the products are outdated but marketable." Some enterprises have felt the urgency of technological innovation, but have only conducted small-scale reforms and lack long-term plans and effective measures. Some enterprises have the conditions and ability to adopt new technology, but fear that it might affect the current production and that surplus laborers cannot be properly placed, so they adopt a passive attitude toward the promotion of new technology. Therefore, we must accelerate the pace of reform; form a mechanism in which scientific research is closely linked to production; increase the motive force and pressure of enterprises in applying scientific research achievements; promote the progress of the commercialization of technological market and achievements; and reduce the lag time in applying scientific research achievements to production and construction.

Successful research and exploitation of high technology is of far-reaching significance to economic construction and the development of human society in the next 10-odd years and the next century. All countries in the world are competing with one another in studying and developing high technology. If we do not adopt active countermeasures, we will be in a passive position. For example, China's arable land reduced by 2 percent annually, but its population increased by an annual average of 12.83 million from 1982 to 1987. In order to greatly increase the output of grain and other agricultural products, we must vigorously develop biological technology and solve the problem of new varieties and quality of crops. Of course, developing high technology takes a long time and costs much money. Therefore, we must lay stress on some main points and do what we are capable of. The central leadership has made correct plans and arrangements in this respect.

3. Do a good job in introducing technology.

Introducing technology is a strategic measure to promote China's scientific and technological advance, to upgrade its production level, to increase our ability to develop science and technology independently, and to accelerate our economic construction. Over the past few years, China has rapidly developed the work of introducing foreign technology and achieved marked results. The main problems at present are that the work of introducing foreign technology is divorced from domestic scientific and technological research; we have ignored the work of digesting and assimilating the introduced foreign technology and the work of nationalizing the foreign technology; and the phenomenon of introducing foreign technology blindly and in a duplicated way is serious. In the future, while actively introducing advanced foreign technology, we must closely link the introduced foreign technology with domestic scientific and technological research, and effectively digest, assimilate, and update the introduced foreign technology.

To digest, assimilate, and update introduced foreign technology, we may begin with the following work: 1) Strengthen independent scientific and technological research, and the research of technological exploitation in particular. This is a basis and prerequisite. 2) Pay attention to selecting and introducing applicable technology. 3) While introducing products and equipment, we must introduce corresponding technological tricks and pay attention to introducing software technology. 4) We must organize in an appropriate and effective way enterprises, manufacturers, scientific research units and colleges to jointly digest, assimilate, and update introduced technology, so as to form advanced technology with Chinese characteristics.

4. Strengthen intellectual exploitation and the cultivation of talented people.

Essentially speaking, the development of science and technology, the invigoration of the economy, and the advance of the whole society depend on the upgrading of laborers' quality and the cultivation of a large number of talented people. According to foreign investigations, the educational level of most workers and labor productivity are in direct ratio. We are facing a serious difficulty of backward education and inadequate professionals. This has become a major obstacle to scientific and technological advance and it is very necessary to strengthen the work of exploiting intellectual resources and cultivating talented people. This work will take a long time, and cannot be finished soon. Therefore, we must adopt effective measures from now on.

In cultivating and employing talented people, we must pay special attention to bringing into play the role of the existing scientific and technological personnel; must truly trust, understand, and respect them; must encourage them to go to the main battlefield of economic construction and the first line of production to give play to their intelligence and wisdom; and must further

improve their working and living conditions. Meanwhile, we must also pay attention to bringing into play the role of those persons who have no academic certificates but really have skills and ability. We must also pay attention to solving the problem of irrational distribution and structure of scientific and technological personnel in the field of system. We must vigorously develop education of various types and at various levels, increase intellectual investment, and firmly grasp vocational education of workers and peasants and the continuous education of the vast number of scientific and technological personnel.

5. Firmly grasp reform of the science and technology structure.

Scientific and technological advance means promoting the development of productive forces. The relations of production and the superstructure which cannot meet the needs of scientific and technological advance must be reformed. Only those reforms and policies which can encourage and support scientific and technological advance can achieve better results. The reform of the scientific and technological structure is an important part of the economic structural reform, and is closely linked to the educational structural reform and political structural reform. At present, we must, by instituting the contracted management responsibility system, strengthen the competition mechanism; urge enterprises to value scientific and technological advance; promote the turning of science and technology into productive forces; and make science and technology better serve production and products. In this progress, we can establish an effective mechanism in which science and technology are closely linked to the economy; and properly solve the problem of scientific and technological personnel giving full play to their initiative, creativity, and wisdom.

Dependence of Macroeconomic Construction on Technological Progress

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[Article by Yang Jike [2799 4764 3784]]

[Text] I. Changes in Human Economy and Culture Depend on Technological Progress

The yardstick for measuring the cultural progress of man is based on the way he does his work and the way he utilizes the force of nature. The way he does his work shows his progress in getting things done by physical work to the way he gets them done by mental work. In using natural forces, there seems to be no end to progress, from the use of draft animals, hydraulic power, and wind power to the use of thermal and electric power, with coal, oil, and natural gas as sources of energy, to the use and taming of nuclear power and solar energy. These two kinds of progress must be based on inventions and technological progress as prerequisites. Without such

prerequisites, ways of doing work also cannot be ingenious. Nor can the use and taming of natural forces be increasingly effective and perfect.

In the initial stage of cultural development, human progress from living by fishing, hunting, and gathering to an agricultural society marked by slash-and-burn cultivation was the first agricultural revolution. Later, with progress to the use of beasts of burden and the tilling of land, there appeared the second agricultural revolution. After the invention of the steam engine by Watt in the 18th century, with energy derived from coal and hydraulic power, flour mills and spinning machines were successively invented, bringing about an increase in the efficiency of production. Technical progress, with machinery replacing manpower, gave rise to the first industrial revolution. Ceaseless invention of various useful machines and improvements brought about an ever-increasing demand for energy, iron, and steel, with the rise of such industries as coal, steel, machine-building, construction, and so forth. Then generators were invented. This technology of using electrical energy touched off the second industrial revolution. With steam engines replaced by motors, a proliferation of inventions and technological progress brought industry to the area of mechanization and electrification. Thereafter, with oil tapped and used on a large scale and with the invention and development of internal combustion engines, airplanes, radios, and other technologies, coupled with the remarkable dominance of assembly line production methods, the third industrial revolution was brought about. In World War II, the needs of war brought about important inventions and substantial progress in the areas of atomic energy and electronic technology. The production of electricity using nuclear energy and electronic computer technology resulting therefrom again paved the way for a new industrial revolution.

Obviously, the many industrial revolutions arose from several all-important technical inventions, thus giving rise to the appearance of large numbers of technical inventions and stimulating overall industrial and economic development and an overall improvement in the cultural level. As every industrial revolution brings human economy and culture to a new stage, it can be said that changes in human economy and culture depend on technological progress.

II. Technological Progress Mainly Calls for Deepening Internally and Crisscrossing Externally

Scientists in ancient times were often naturalists. This was the case with Aristotle in ancient Greece. The same was true of Shen Kuo of our country in the Song Dynasty. What Shen Kuo talked of in his "Notes on the Dream of the Stream" concerning science and technology and social science may be considered a collection of then existing scientific knowledge. It covered almost

everything—farmland irrigation facilities, geology, geography, biological medicine, arms and equipment, metallurgy, chemical industry, construction structure, astronomy and calendars, mathematical operations, chemistry, physics, and so forth, not counting entries on social science.

At a time when the Ming and Qing Dynasties of our country were following the Han and Tang traditions, with government and public obsessed with a stereotyped style of writing, argumentation, the rules of writing, and textual research, Europe, following the road of the Renaissance, continuously made important inventions and made great progress in the technical field, thus making itself rich and powerful in the economic, military, political, social, and other fields and leaving far behind an ancient empire like ours.

What formed a contrast to the "lack of successors" to Shen Kuo was Europe's scientific research, which was carried to increasing depths, involving an ever greater number of branches. To date, there are 109 university courses, with numerous sciences as offshoots under them.

But "a division inevitably follows a long period of integration, just as a long period of division will result in integration," as a Chinese saying goes. One of the features of scientific development in the 20th century is interpenetration, mutual promotion, and mutual integration between branches of learning. Starting from the peripheries of a few subjects, things may develop into an overall crisscrossing between multiple subjects of study. Almost all economic and social subjects that urgently call for study and solution require comprehensive study, with the integration of social sciences, technological sciences, and natural sciences. This kind of a higher-level crisscrossing science, as compared with a general peripheral science based on the interpenetration of some branches of social science, is what our national economic construction and social development need. It carries far greater significance and is much richer in content.

For example, agricultural zoning falls into the sphere of the distribution-related economy and the integration-related economy, with the rational development and comprehensive utilization of natural resources. The initial task calls for investigation and study of the distribution of natural resources in various areas, socioeconomic conditions, and concrete conditions of various agricultural sectors, with several dozen subjects involved. This is obviously an extra-large crisscrossing scientific subject. It represents important fundamental research work that must first be properly handled in our country's march toward agricultural modernization.

III. Economic Hybrid Techniques Represent a Typical Case of Deepening Techniques Internally

Economic hybrid techniques originated from Peer's discovery in the latter part of the 19th century of hybrid superiority from the crossbreeding of pure strains of corn

and the invention by several geneticists of the technique of crossbreeding corn on this basis in the 1930s. According to estimates, since the world switchover to improved strains of crossbred corn, the value of increased annual corn production has stood at above 10 billion yuan. Economic results obtained from the discovery and development of this genetic breeding technique alone have sufficed to more than pay for the fundamental construction of all agricultural experimental work stations ever built in the world and their overheads.

After geneticists, on this basis, discovered the male sterile plant in the self-pollinating kaoliang [Chinese sorghum], they invented the economic crossbreeding method involving three varieties—the sterile variety, the preservation variety, and the restoration variety—with substantial economic results. This method was brought into our country by Xu Guanren, a specialist in genetic breeding, enabling north China and northeast China to achieve an increased output of kaoliang over a wide area.

The economic crossbreeding method for corn and kaoliang brought immediate results in the handling of crops, trees, fruits, vegetables, flowers, and various other economic plants. Most noteworthy was the invention of the crossbreeding of paddies. After rice breeder Yuan Longping of Hunan drew on the kaoliang crossbreeding method to create the system of economic rice crossbreeding, how could the increase in national rice output not have reached more than several tens of millions of tons! Now this technique is showing results throughout the world. It has been praised as the most important technological progress in agricultural technology.

Given the universal significance of the principle of hereditary breeding involving animals and plants, the economic crossbreeding method was again extended to animal breeding work. Extremely satisfactory results were also successively achieved in regard to silkworms, egg-laying hens, table chickens, fresh-water fish and pigs, greatly raising their economic production capacity. This became the main method for the breeding of these animal varieties. The table chickens produced by the United States by relying on this method account almost for half the world market. In our country, such crossbreeding technologies as “purification of introduced hog strains,” “local purification of sow strains” and “one-generation crossbreeding of porkers” have shown very satisfactory economic results. They are hailed by the masses of peasants and should be continuously promoted with vigor.

IV. There Are Also Typical Cases of Technologies and Subjects of Study Crisscrossing Externally

Many years ago, Australian sheep were affected with a kind of rapidly spreading anemia. Scientists considered it was a problem of nutrition, but an analysis of forage grass showed no lack of general nutrients. As hemoglobin contains iron, it was thought that an iron supplement

might be a cure for the anemia. The results of comparative tests showed that sheep fed additionally with a roughly made iron compound were free from the disease. But when they further used a pure iron compound in a comparative test, they found no such effect. Thus, they also moved one step forward, as they realized that the cause of the disease was not a lack of iron but the lack of an unknown element.

Therefore, they made an analysis of coarse iron salt. The found it also contains manganese, cobalt, calcium magnesium, nickel, molybdenum, and so forth, all of them in small quantities. They made further comparative feeding tests with each element. As a result, the truth emerged. Cobalt played the key role. It was precisely the lack of a small quantity of cobalt in the fodder that caused sheep to lose weight and suffer from anemia and even death. The results of further tests showed that the quantity required is very small. Each sheep needs only 0.01 gram of cobalt salt daily to be immune from this disease.

Scientists were not content with this. They made comparative tests, with cobalt being administered by injection or orally. It was found that an injection produced no effect. Only feeding by mouth was effective. Therefore, they further studied the digestive system of sheep. It was found that there is a kind of bacteria that has the function of using Vitamin B-12, containing cobalt. Vitamin B-12 deficiency will cause sheep to suffer from pernicious anemia.

Scientists further found out that the molecules of Vitamin B-12 are a kind of chromium compound. Each molecule naturally contains a cobalt atom. Though very small in quantity, the cobalt therein produces a very great effect.

From this case, we can derive much enlightenment. First, production must depend on technological progress. Only in this way can competitive economic results be obtained. Second, investigation and study are indispensable to technological progress, with the two progressing in cycles and complementing each other. Third, investigation and study work must be carried out with attention to every minute detail and in a down-to-earth way. Fourth, items of investigation and study oriented toward production mostly call for knowledge and technology involving many subjects. Having knowledge of only one subject will not do.

V. Modern Technological Progress Makes for a Fundamental Readjustment of the Important Factors in Productivity

As far as the old economic concept is concerned, the indispensable factors in productivity are manpower (including mental and manual work), land (including fields and housing), materials (including raw materials and finished products), and money (including capital and loans). Given technological progress and economic needs, this old concept has been updated. Apart from the

four factors of manpower, land, materials, and money, there are three indispensable factors in productivity—time (including efficiency and speed), information (including statistics and auditing), and creativity (including the creation of inventions and ideas).

The assembly line method created by Ford brought about a great increase in labor productivity in the production of cars. This is a typical case of the factor of "creativity" stimulating a still greater effect on the two factors of "labor" and "time." Progress in micro-motor-control technology has also made for a big increase in the efficiency of the assembly line method.

Today, as we enter the era of information, with technological progress in world telecommunications, information has become an important factor in productivity. The reform of the economic system, or the combined functions of various factors in productivity, must assert their obvious role through this important factor of information.

The coordinated opening of the technology market and the information market is most capable of bringing the best results from information and also of causing various other markets to benefit. The commodity market, the financial market, the labor market, the talent market, the real estate market, and other markets are all necessarily linked to information. The opening of these markets can also surely stimulate considerable progress in regard to various appropriate techniques.

Economic information also plays an important role in effectively realizing macroeconomic control. Our economy calls for the regulation of the market under macroeconomic control, but some capital construction projects are approved without making careful feasibility studies, causing loss of macroeconomic control. This reason lies in there being something wrong with the planning system and in a lack of accurate and timely information feedback and of effective supervision.

Economic information can also play a positive role in removing restraints on departments or organs. A very big defect in our existing system is the barriers between departments or organs. They each go their own way seeking their own interests at the expense of the interests of the whole. What is involved has much to do with economic behavior. Therefore, we must actively give full play to the role of information in this regard. The always obvious combined role of the two teams (the rural survey team and the urban survey team) and three methods of calculation (statistics compiling, accounting, and auditing) can prove this.

VI. The Promulgation and Implementation of the Patent Law Allows the Development of the Creativity of the Masses

The patent system originated in Britain, with other European countries, the United States, Japan, and so forth successively following suit. It had a stimulating

effect on the industrial revolution. In the Chinese society of the past, without a patent system, all technologies and formulae producing economic results were passed on in the same family from generation to generation, and not freely handed over to outsiders. Even naturally born daughters were not let in on the secrets of formulae for fear that relevant interests might go to someone with a different surname. The blockade imposed on technical innovation and creation and lack of attention to them made our industry stagnate. In contrast, in Britain, and then in other European countries and the United States and Japan, this unique way of using law to protect patents smashed the technical blockade standing in the way of economic development. This threw open the gate to wisdom, releasing numerous inventions and creations and bringing about a fundamental material and cultural change in human society. It can almost be said with certainty that had it not been for the promulgation of the patent law in these countries, there would not have been rapid technical progress, and the industrial revolution also would not have come about. Given no legal protection for patents, enthusiasm for invention on the part of talented and creative people could not have been aroused. Even if something were invented, much would be lost in the process of its being transmitted, and little would be actually handed down. The further development of what was inherited would also proceed very closely and in a very small way. A force capable of bringing about a profound change in society could hardly take shape.

The promulgation of a patent law enables the invention held by a family or a certain organ to be known and owned by society and gives protection to the rights and interests of the inventor for a given limited period. The practice benefits overall social interests far more than the individual. This is fair and reasonable. Moreover, as in invention can often stimulate a series of inventions by successors, the combination of many inventions also can lead to more improved, or second- and third-generation, inventions. So there is no end to knowledge and technological progress. Many industrial revolutions arising therefrom have paved the way for the accelerated development of human culture.

VII. Technological Progress Enables Anti-Illiteracy and Popularization Efforts To Be Greatly Strengthened

Of many important factors in developing macroeconomic productivity, social mass wisdom counts most. Contemporary technological progress in telecommunications has provided fine conditions for this. Mentioned here will only be the role of the telecommunications satellite in popularizing education.

In 1974, the United States launched a "teacher of the air" satellite. The ground personnel controlling it aimed the satellite television broadcast antenna at mountainous and remote areas in the United States on a rotational and chronological basis, giving supplementary television lessons for those youths and adolescents unable to attend

school or pursuing higher studies and for middle and primary school teachers. A year later, this satellite switched to the popularization of hygiene and scientific and technical knowledge for the benefit of the masses of Indian peasants. In each of more than 2,000 villages, the Indian Government set up a receiving station enabling peasants to tune in to scientific, technical, and hygiene knowledge and general knowledge. This also had the effect of eliminating illiteracy and discouraging gambling. Unusually obvious results were achieved. After a taste of the rewarding results, India actively promoted its own educational satellite plan.

Our country launched its first synchronous experimental telecommunications satellite in April 1984, providing conditions for the use of a telecommunications satellite to popularize education and eliminate illiteracy. This task started with the elevation of the teaching level of rural middle and primary school teachers. I am of the opinion that input in this respect should be considerably increased.

At present, the cost of the simple disk-shaped antennae to receive satellite information is continuously dropping. If our vast rural areas can link satellite broadcasts to every rural wired television network, universal and anti-illiteracy education can surely develop rapidly. The illiterate and semi-illiterate people in our country account for as much as 23.6 percent of our total population! The unusually backward state of education has greatly restricted the pace of development of our economic construction. One main causal factor is the lack of teachers. But given the educational satellite and the rural wired television network, this originally very tough problem can be easily solved. It seems that the elimination of illiteracy in our country depends on this technological advance. Professor Qian Weizhang considers that the popularization of rural culture and education counts more than 100 Nobel prizes in our economic construction. I fully agree with this farsighted viewpoint.

VIII. The Introduction of Sampling Technology Has Thoroughly Changed the Degree of Statistical Efficiency

Sampling technology, originating in the science of mathematical statistics, has been successively used in agriculture and industry. This sample survey method, which can save manpower and time and also money, and yet can provide highly reliable data, has found increasing favor with people. The general survey method is very seldom used, except under unavoidable circumstances, such as a census. The sampling method predominates in economic and social investigation work. The soil "general survey" is actually also a sample survey, and not a general survey. This is because the soil samples still represent an extremely small proportion of all soil.

The UN Statistical Commission has therefore made suggestions about what economically effective investigation methods should be used by developing countries in

the world. It is proposed that where the method of overall general survey or partial general survey was previously applied, every means should be used to change to the random sample survey method. The commission put forward 12 suggestions about steps to be taken in sampling investigation work for the reference of these countries.

At the end of 1983, our country separately established rural and urban sample survey teams. They have conducted surveys concerning various problems in line with the needs of the developing economic and social situation. Though not established long, these teams have achieved outstanding results due to the timely and accurate feedback of information, data, and material. They have received the attention of the leadership at central and local levels. These organs have at the same time entered the ranks of efficient organs among administrative organs.

IX. Macrotechnological Economic Policy Decisions Depend on the Operation of Time, Space, Quantity, and Integration

In the macrotechnological economic area, the seven important factors in productivity mentioned above, if provided with the best single or composite match in regard to time, space, quantity, horizontal integration, and so forth, can produce the most ideal economic results for the time and place. These four kinds of macrotechnological economics, that is, sequence economics, distribution economics, scale economics, and horizontal integration economics, are in the category of crisscrossing sciences composed of social sciences, technological sciences, and natural sciences. They also make up the main contents of the sciences of operations research and systems engineering.

Any capital construction project, before being subject to microeconomic feasibility studies, must be first investigated and studied on the basis of the principles of these several kinds of macrotechnological economics. In other words, feasibility studies concerning projects based on commodity regulation in microeconomics as a starting point must be preceded by the best overall arrangements in regard to sequence, distribution, scale, horizontal integration, and so forth. Only after they are considered economically justified on the basis of macroeconomic regulation and control as a starting point can there be grounds for work to start.

Considerable contemporary progress in sampling investigation, information feedback, systems engineering, electronic computation, and other technologies has made for far better feasibility studies regarding macroeconomic construction projects in regard to quantity, predictability, reliability, and so forth. These technologies have become an indispensable component of the

decisionmaking process. Properly applied, they also represent an important factor in making our economic construction catch up quickly with the international level.

X. We Must Study and Formulate General and Specific Policies To Stimulate Our Technological Progress

Apart from the promulgation of the patent law and the "two-sided revitalization" of scientific and technical personnel and scientific and technical organs, to energetically stimulate the technological progress of our country, we must also formulate appropriate general and specific policies in other respects and effective measures and ways to implement them. It is suggested that consideration be given to general and specific policies in the following several aspects:

1. Using economic levers to stimulate technological progress;
2. Using the technology market to stimulate the exchange of technologies;
3. Using enterprise potential to increase reserve technical strength;
4. Using relevant teaching units to import and digest technology;
5. Using mass organizations to run technology societies on a nongovernment basis;
6. Using telecommunications networks to convey technological information;
7. Using consulting organs to make feasibility studies regarding technological projects;
8. Using financial channels to support technical development;
9. Using standard-setting departments to formulate technological standards;
10. Using nongovernment-run industries to popularize technology.

In fact, technological progress is having an influence and also a beneficial effect on the whole society. It is the common concern of the whole society. It also calls for efforts by the whole society. Therefore, the formulation of general and specific policies on technological progress must also be based on the central policy of making the people rich as the most fundamental starting point. To this end, apart from the need for the above-mentioned organs, units, and organizations to implement these general and specific policies and also to assume responsibility for technological progress, almost all individuals, collectives, and state enterprises and institutions must plunge into the current of technological progress, doing their part in building socialism with Chinese characteristics.

The Maturing of a Doctor

*40050156d Beijing HONGQI [RED FLAG] in Chinese
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[Article by Wu Jieping [0702 7132 1627]]

[Text] The maturing of a doctor is subject to the influence of numerous factors, both subjective and objective. Objectively, there are the factors of practice opportunities, study environment, working conditions and guidance from one's superiors; subjectively, the decisive factors are personal striving and one's understanding of maturity. No more needs to be said about the importance of hard work because everyone knows it, but there is still the question of how to achieve the best result through hard work. Thus, understanding the maturing process as soon as possible is of paramount importance. Academic qualifications and working experience affect one's maturity not only in terms of building up knowledge, but because they can help a person to gradually deepen his understanding of maturity. When people look back over their past, they often feel that they could have achieved much more had they been clearer about how to study and how to work. However, how to recount one's own maturing experience to the young people has never been given any attention. This is the reason why I wish to discuss my own experience with all of you.

Although I had my feelings about some of the basic factors which affected my growth in different periods over the past 50 years or so, my understanding was rather shallow and I failed to perceive their importance. It was not until after I had made a systematic review of my past in recent years that I began to see things in their correct perspectives. After arriving at my new understanding, I realized that it had already been penetratingly discussed by great thinkers of the past. I had read about their famous sayings without being able to grasp their essential meaning. I was also unable to use them to guide my work and study. Obviously we cannot understand them through hard work and practice. I hope my views in the following paragraphs will induce young people to pay attention to this question. I also would like to hear comments from my colleagues.

I. The Question of Enhancing One's Ability in Actual Work

It seems that everyone knows it is an important issue, but in real life, many people have failed to put their minds on enhancing their ability in actual work. Our goal is to become good doctors, doctors with ability and skill. "Skill" is the yardstick for judging one's professional maturity. Although it is easy to understand the word "skill," how to acquire it involves a fundamental issue, that is, the combination of practice, thinking and knowledge.

The ability to solve practical problems comes from practice. Thus, practice must be given priority. If we depart from practice, we will not be able to truly understand the knowledge summed up by our predecessors through practice, not to mention making use of such knowledge ourselves. At present, it is a common phenomenon for young doctors to belittle clinical practice. This is indeed very worrying. One regards clinical work as simple precisely because one has not gone deep into the reality of clinical practice. Unless we pay attention to clinical practice, we will never become skilled doctors. Only when we have come to understand the importance of practice, thought things over seriously and acquired the necessary knowledge would we be able to enhance our ability.

We must stress the importance of serious thinking. The ability to think needs to be cultivated; it requires us to study and go through tempering. One's intuitive reactions to things and flashes of ideas are not thinking. Thinking is a kind of mental labor with a purpose. It is a process in which perceptual knowledge is elevated to rational understanding; it involves the probing of the essence of things through their appearance; and it is an indispensable basic skill for understanding and transforming nature. Without thinking, practice cannot enable us to accumulate experience more quickly; without thinking, knowledge cannot be turned into ability. Great Chinese thinkers of the past attached great importance to thinking. Xunzi [5424 1311] said: "Use your head to solve problems." Han Yu [7281 1937] said: "Thinking leads us to success, compliance leads us to failure." "Thinking" and "pondering" are part and parcel of our everyday vocabulary. We say "think over again and again" and "careful thinking" to show the complexity of thinking. Einstein said higher education must put the emphasis on the cultivation of students' ability to think over and probe into problems. Like physical labor, mental labor also needs to go through tempering. Thinking is a kind of creative labor. It needs practice and knowledge as its basis and requires the guidance of theory. I will further elaborate on this point later. Not paying attention to the cultivation of their ability to think is an important factor that affects the maturing of our young people.

It goes without saying that knowledge is important, but knowledge can only be translated into ability when it is put into application in practice and in thinking. The British philosopher Francis Bacon was praised by Marx as "the true forefather of British materialism and of modern experience science as a whole." His famous saying "knowledge is power" might be misinterpreted if taken at face value. According to Bacon: "Knowledge itself does not tell us how it can be made use of. How to put it into application is an intellectual ability above and beyond knowledge, an ability which can only be achieved through observation and understanding." Bacon said knowledge is power only because he was opposed to idealism. He advocated doing away with idols, ignorance, prejudices and fantasies, and believed

in knowing nature in order to conquer nature. Knowledge will not become power unless it is put into application in practice. If we want to have the ability to solve actual problems, we must have knowledge. However, knowledge is by no means equivalent to ability. It needs to go through a blending process, a process of practice and thinking.

We should make an effort to appreciate what great thinkers of the past had said on the combination of practice, thinking and knowledge. Confucius said: "Learning without thinking is vain, thinking without learning is perilous." Here, "vain" means being puzzled, perplexed or deceived; and "perilous" means dangerous. If we interpret "learning" as learning through work and as the acquisition of knowledge, we can say that this saying clearly explained the importance of practice and thinking. Benjamin Franklin once said: Reading is easy and thinking is difficult, but we cannot have one without the other. The Canadian-born American scholar William Ou-si-luo [2962 2448 5012] put the importance of clinical practice in even more concrete terms. He said: "When studying the symptoms of illnesses, we are sailing in a sea without navigation routes if we do not have any books; but if we have books but no patients, we are not even out at sea."

Thoroughly understanding the difference between knowledge and ability is of great importance to teaching. For many years we have opposed spoon-feeding and cramming and advocated the elicitation method of teaching. As I see it, the fundamental issue lies in switching from the method of "passing on knowledge" to the cultivation of ability. In fact, the guiding ideology of "solving practical problems and taking society as the base" followed by Canada's MacMaster University in its reform of medical education in the past decade and more had its emphasis on practice and the cultivation of ability.

II. Be Good At Availing Oneself of Opportunities for Learning

Doctors must wholeheartedly serve the cause of public health. Service is an opportunity for learning. If we set service and learning against each other, we cannot produce good results on either score because they both require the combination of practice, thinking and knowledge. If we can combine the three well, we can serve better and improve our ability. The ability to combine service with learning is a reflection of the degree of one's maturity.

Doctors must understand the characteristics of clinical medicine and make use of these characteristics to improve their working ability. I think the following four characteristics are of great importance.

First, clinical work means directly serving the people. Health and life are the most precious of all. In this sense, doctors shoulder a heavy responsibility and cannot

afford to make careless mistakes. Doctors must understand that those they serve are not merely biological beings, what is more important is that they are serving sociological beings. Only by approaching our clients and our work with enthusiasm and sincerity will we be able to find out where the illness or problem is, thereby yielding the best results in our diagnosis and treatment. The words and deeds of a doctor may affect the result of treatment, even produce unnecessary burdens. There are many problems of principle in clinical work. If a doctor does not take into consideration the characteristics of man as a social being, he may produce results contrary to his anticipation even though he cherishes the good intention of wholeheartedly serving the people. No two patients are identical, and it is unlikely for their illnesses to be completely identical. What is more important is that they are different individuals. Understanding and knowing another person and learning how to conduct oneself in relation to another are lifelong endeavors; they are yet another indication of a person's maturity.

Second, clinical work involves a good deal of practice. The number of patients treated in a day adds to one's experience through practice. This kind of practice is by no means a simple matter of repetition. Each treatment has its own content. We can even say that each is a new practice. As far as the illness itself is concerned, it is manifested differently on different persons. Patients react to treatment in different ways physically, spiritually as well as mentally. Through the huge volume of clinical practice, doctors incessantly built up their knowledge of the common characteristics of illnesses through the treatment of individual patients. They also deepened their understanding of how to make use of the common characteristics of illnesses as points of guidance in their treatment of individual cases. If we are not good at availing ourselves of the opportunities afforded by these repeated practices and even show an abhorrence of patients with common diseases, we will not only be unable to provide good service but will miss a precious opportunity for study. Thus, doctors must attach importance to repetitive practice in clinical work.

Third, doctors have to make many judgments in a single instance of clinical practice. A doctor has to consider the following questions in the treatment of every patient: What is wrong with his or her health? What is the nature of the problem? Is it serious? What is the cause? Is it caused by environmental or intrinsic reasons? Is it congenital or postnatal? How does the present condition relate to the original state of health? In what system or organ do major changes occur? What special psychological and mental signs has he or she shown? What other medical examinations are needed? Will they bring spiritual, physical or financial burdens? How should they be arranged? Does he or she need rest, hospitalization or isolation? What kind of treatment should I recommend? Will the treatment produce side-effects? What will the result be? How should I explain the case to the patient, the family and others concerned? What kind of response should I expect? The doctor has to give serious thought

to these questions. Generally speaking, a doctor can make up his mind within a short time, even in a matter of seconds. It is only on the basis of protracted practice and rich knowledge that a doctor can single out the relevant key problems of individual patients and give them due consideration. Thus, it is important that doctors must form the habit of thinking systemically and in an all-round way rather than rely on the so-called "inspiration" when they make judgments. Systemic thinking can help avoid carelessness and minimize mistakes. It also facilitates the summing up of experience and lessons.

Fourth, from the patient's recovery or changes in his condition, a doctor can usually tell whether or not his diagnosis is in keeping with reality. This characteristic shows that doctors stand a good chance of summing up their own experience or lessons. Only by thinking carefully before making the above judgments and having a clear idea of the basis on which these judgments were made would we be able to do a good job of summing up experience and expedite our growth to maturity.

The above characteristics of clinical medicine are my own observations and have never before been mentioned by anyone else. These characteristics all require the doctor to attach importance to the combination of practice, thinking and knowledge. Understanding these characteristics is of help to one's growth to maturity.

III. Cultivate a Mind That Is Well-Prepared

We must give priority to practice if we want to increase our ability in actual work. There is no doubt about this. However, people with the same opportunity may achieve vastly different results because the way they combined practice with thinking varied immensely. Louis Pasteur, the French scientist and the founder of microbiology, had this famous saying: "In the realm of observation, chance only favors those who are mentally well-prepared." Whether or not one is mentally well-prepared makes a world of difference. One who is not well-prepared looks without seeing and listens without hearing. The British microbiologist Alexander Fleming was breeding staphylococcus when he noticed that staphylococcus had disappeared on a moldy spot of the breeding utensil. He came to realize that mold contains a substance which can stop the growth of staphylococcus. He started breeding mold to produce penicillin. After protracted efforts, he and his co-workers developed penicillin into an important weapon for fighting bacteria and ushered in a new era of medical science. Before Fleming, many people must have seen bacteria disappearing on moldy spots, but they took no notice of this fact and hence missed the opportunity to discover penicillin. We have to prepare ourselves mentally and feel for ourselves in the course of practice.

Here, I would like to cite my own experience by way of illustration. I am a surgical doctor and was trained in surgery in my internship. At that time we performed a

great number of appendectomy operations. When a patient was diagnosed as suffering from acute appendicitis and the diagnosis was proved correct after the operation, I as an intern also felt I had gained experience. Not long after I started my internship, I noticed that acute appendicitis varied a great deal from case to case. Sometimes the operation was easy because the appendix was exactly where the chief surgeon had cut open the abdominal wall and the peritoneum, but sometimes the appendix was hard to find. Some appendicitis patients showed serious symptoms, but upon operation it was found that the inflammation was merely caused by a sterocolith inside the cavity of the appendix. Some patients had violent peritoneal response, with the appendix completely engulfed by the peritoneum, but some had very mild response. In short, different cases of acute appendicitis looked different on the operation table. I was inspired by this observation. After diagnosing a case of acute appendicitis, I tried to form my own judgments as to the location of the appendix, whether there was any sterocolith, the degree of peritoneal response and so on, before performing the operation, and wrote down the basis of my judgment in the patient's case history. The experience I gained from these operations far exceeded that gained by a doctor who satisfied himself with a mere diagnosis. This can greatly expedite the accumulation of experience. There are many such examples. If we are more alert, we will discover many problems in work that require thorough and penetrating thoughts. These considerations are related to actual work; they are not wild fantasies. Actually, the important thing is not so much to accumulate experience in one aspect or even several aspects as to form the habit of thinking seriously in the course of practice. It is a good habit that would prove useful all our lives, a good habit that has an important role to play in hastening our growth to maturity. What merits attention is that many doctors go against this and content themselves with superficial and muddled understanding. As a result, they are more prone to making mistakes in work, at least they are not in a position to give the patients the best service and are unable to increase their ability of resolving actual problems.

Clinical medicine is making fast progress and new knowledge, new techniques, new methods and new experiences are constantly being discovered. Most doctors like to hear briefings on new knowledge and new progress, but very few of them pay attention to or try to find out where these "new" things are discovered or derived from. As a result, they can at most learn something new, but do not get any inspiration. If we pay attention not only to knowledge itself but also to how it is derived, and ask ourselves why we have not thought of it, it would definitely hasten our growth.

An experienced doctor has a good work style and good habits that are difficult to describe in words. Young doctors must be good at learning through observation. They must not only be good at summing up their own experience and lessons, but must be good at learning from the experience of others and make use of other people's strong points to enrich their minds.

IV. Consciously Make Use of Materialist Dialectics

Clinical work is brimming with the brilliance of dialectics. Comrade Zhou Enlai often instructed people engaged in the medical profession: "You doctors need dialectics the most, so you must carefully study Chairman Mao's 'On Practice' and 'On Contradiction.' You doctors will find dialectics most easy to understand." I also have my own observations in this regard. After graduation I underwent rigorous training to become a resident physician and served two terms as the chief resident. I also went through the stages of being the physician in charge and studying abroad, and had laid a solid foundation in clinical work. After the founding of the People's Republic, I studied "On Practice" and "On Contradiction" for the first time and began to understand the complexity and dialectical relationship of things. I learned to make use of such methods of logical thinking as induction, deduction, analysis, conclusion, comparison and inference in clinical practice. In clinical work, one has to think in order to reproduce one's own rich perceptual knowledge. One has to discard the dross and select the essence, eliminate the false and retain the true, draw inference and proceed from the surface to what lies behind. Most scientists in history felt the need for philosophy only after they had reached a given level professionally. Only then did they realize that unless they had correct philosophical guidance they would not be able to make further progress in their professional pursuits. In socialist China, with Marxism-Leninism-Mao Zedong Thought as the guiding ideology our party and state have provided us with an exceptionally good condition and opportunity for consciously studying and applying materialist dialectics. If we could consciously increase our ability of dialectical thinking in clinical practice and enrich our essential knowledge, we could benefit from these efforts all our lives and hasten our advancement and maturity. In this way, we would be able to develop the cause of medicine and public health in China at a much faster pace.

If a doctor is always conscious of the gap between his clinical analysis and objective reality, he would be able to make fewer mistakes. The most dangerous thing would be not being conscious of how big is the gap between his clinical analysis and objective reality.

Man's knowledge of himself, including his health, is still far from perfect. A doctor must have self-knowledge and understand that there are things he does not know. Experienced doctors are always careful "like walking on the edge of a hanging cliff and treading on thin ice" when they are carrying out clinical work. This frame of mind is what enabled them to translate into reality their wish to serve the people.

In our clinical work, we must strive to find out the reasons why we made mistakes—whether it was due to our lack of understanding, or inadequate information, or faults in our way of thinking. In this way, we would be able to learn from our mistakes and continue to forge ahead.

The above is my understanding of professional growth. Since growth to maturity covers the political aspect as well as the professional aspect, I would like to say a few words on political growth. Like professional growth, political growth must be realized through the combination of practice, thinking and knowledge. The most fundamental question is the resolution of the question of one's own outlook on life and on the world.

In the early days of the People's Republic, I did not think I had any outlook on life and on the world. Through study and working with the operating team during the resist-U.S. aggression and aid-Korea period, it suddenly dawned on me that it was not true that I did not have my own outlook on life and on the world—I was just not aware I had them. Come to think of it, I was really too naive then, but that was a fact. After making an initial effort to study the history of social development, I firmly believed that practical socialism and communism were necessary stages of social development. I have an unshakable faith in this conclusion drawn on the basis of historical materialism. I must go along with the tide of history and push the development of history forward. With this understanding, my general desire to be a good doctor is sublimated to become an aspiration to serve the people wholeheartedly and be a good doctor needed by the socialist society. As far as some of our young people are concerned, what needs to be settled is whether or not they believe in socialism. This is a question of one's outlook on life.

In my conversation with young people, I often heard them say: Older people look at things diachronically and keep talking about what it was like in old China and what it is like now. We young people look at things synchronically. We want to know what things are like in the United States, the Federal Republic of Germany and Japan. Some people even called this a "generation gap" and said this was what distinguished the younger generation from the old, implying in fact that the older generation could not keep pace with time. Seriously, I think we would all agree that we should look at things both diachronically and synchronically. In other words, we must neither consider history apart from its historical context, nor look at a particular aspect in isolation from the whole. However, whether diachronically or synchronically, we must look at things in an all-round way and take into consideration the political, economic, cultural, scientific, social and other aspects. For instance, I noticed that the United States has made remarkable progress in the realm of science, including medicine, in the 1980s as compared with the late 1940s, but in terms of social life, degeneration associated with the capitalist system is becoming more and more obvious. There are many specific examples to illustrate this observation. Understanding these developments are of great help to one's political growth.

Things in our country still leave much to be desired, but if we take a close look at this land of ours from the angle of politics, economy, culture, science or public health, we

will discover that the achievements we have made since the founding of the People's Republic are unprecedented. It is precisely because we have persistently followed the socialist road and have the leadership of the party that we have been able to make these achievements. If we seriously analyze the existing problems, we would easily understand that they are not caused by the socialist system. On the contrary, it is because we have not thoroughly implemented the socialist principle in many cases. But then building socialism with Chinese characteristics is a bold move never before attempted by our predecessors. Problems have emerged due to our lack of experience. This is perfectly understandable.

Professional growth may be a natural process or a conscious effort. If we engage in practice, we would make improvements somehow. This may be called natural growth. This kind of growth will come to a halt at a certain stage, and, failing to make any further progress, we would slip back and not be able to keep abreast with time. Only by thinking seriously in practice and constantly replenishing our knowledge would we be able to form our own judgment, put them to test and strive to improve upon them in practice. Only when we have done this can we say that we have taken the road of conscious growth. As far as doctors are concerned, I think that many have never quite reached the stage where they consciously worked for their own growth. This situation badly needs to be changed. The key to this change is the conscious combination of practice, thinking and knowledge. The importance of this combination is not confined to clinical medicine. It can be applied to other sciences as well.

Earlier I cited the second half of the saying by Han Yu, and here we should note the entire saying: "Hard work leads to proficiency; play leads to neglect. Thinking leads to success; compliance leads to failure." "Compliance" here may be interpreted as not making a conscious effort, echoing the views of others, and not having any idea of one's own.

Many people find the tendency to slight practice and not to think seriously about clinical medicine very worrying. I hope the above views of mine would be of some value to young doctors and instructors as points of reference.

A New Probe Into Increasing Agricultural Vitality—Investigation of the Agricultural Scale Operational Experiment in Shunyi County, Beijing
HK020931 Beijing HONGQI [RED FLAG] in Chinese
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[Article by Zhao Shufeng [6392 2885 2800], Pei Changhong [5952 7022 3163], and Zhou Xinjing [0719 2450 0079]]

[Text] The implementation of the output-related contracted responsibility system on a household basis has brought about great vitality in agricultural production. However, when land is contracted out under small-scale

management by peasant households, how to further commercialize, socialize, and modernize agriculture still remains a major question in rural reform and development. In economically developed regions, due to rapid development in nonagricultural production, peasant households engaging in sideline occupations has become an obstacle to the stable growth of crop planting and agricultural modernization. In view of this, the central authorities raised the question of carrying out agricultural scale operational experiments in certain developed regions, the suburban areas of large cities, factory and mining areas, and export bases, to explore ways to increase agricultural vitality in the new situation. The agricultural scale operational experiment in Shunyi County, Beijing is an attempt to reflect this strategic idea.

I

The main grain producing county in Beijing, Shunyi has some 700,000 mu of grain fields and its grain output accounts for one-fifth of the city's total. Since 1978 its grain output has increased at an annual rate of 5 percent, higher than the city's average. Its rural industry has also developed very rapidly, registering a 30 percent annual increase in its gross industrial output value, higher than the city's average rate. Over the last 2 years, peasant households engaging in sideline occupations has led to all sorts of contradictions, and this reflects a characteristic of economic developed regions.

Shunyi County began to introduce the household contract system between late 1983 and early 1984. Laborers and funds derived from the implementation of the contracted responsibility system enabled rural industries to develop rapidly. Within a short span of 2 to 3 years, township and village industries absorbed 40 percent of the laborers from agriculture, thereby raising the proportion of nonagricultural laborers to the total number of laborers to 70 percent. Subsequently, a rapid change took place in the formation of the gross rural social output value and peasant families' income. In 1986, the per capita income of the peasants amounted to 962 yuan, of which income from agriculture was less than 30 percent, and about 20 percent in some townships and villages. Obviously, farming became a supplementary source of income for the peasants and undertaking small plots of land (per capita possession of grain fields was 5.8 mu in the entire county) became a sideline occupation. Quite a number of peasants rested content with "just having enough to eat" and were unwilling to invest more funds and technology in agriculture. Peasants in some rural areas even refused to use the chemical fertilizers provided free by the township or village production service organizations, because the benefit from the use of these chemical fertilizers could hardly compensate for the labor consumed. In such cases, agricultural management could not be carried out in an intensive manner.

To guarantee agricultural production against serious retrogression, the practice continued in which "industry was used to supplement agriculture." On the one hand, township and village production organizations were required to provide free or low-cost production services whereas township and village industries were required to bear some expenses for agricultural production; on the other, the provision of subsidies for grain prices was introduced for the purpose of encouraging peasant households to increase their investments and strengthen field management. From 1984 to 1986, the funds annually allocated for township and village agricultural production amounted to 30 million yuan, about 25 to 30 percent of the profit obtained from township and village industrial production and equivalent to an annual subsidy of 50 yuan per mu of grain fields and an annual subsidy of 250 yuan for each peasant household contracting for grain fields. The annual subsidy for the 10,000 mu of grain fields in the townships around the county seat alone amounted to 1 million yuan, which was basically the total cost of agricultural production in these townships. This huge price brought about an annual increase of only 1 percent or so in the entire county's grain production. On the other hand, it also produced the following serious consequences:

First, the technological services provided to peasant households by township and village production service organizations was restricted by the decentralized management of small plots of land, thereby affecting the utility rate of production factors and raising the service costs.

Second, the free or low-charge services provided by township and village production service organizations plus huge amounts of agricultural subsidies could not spark the peasants' initiative in farming, because subsidies did not help increase their income from land management but instead gave rise to their desire for equal distribution of subsidies.

Third, prolonged huge amounts of agricultural subsidies greatly weakened the development potential and competitiveness of township and village industries and imposed heavy pressure on them. The development rate of township and village industries in Shunyi County slowed down for the previous 2 years. Apart from being affected by the market situation, this was also the result of the prolonged, large-scale agricultural subsidies.

Fourth, affected by the idea of "being content with just having enough to eat," there was a possibility that the peasants would go back from commodity production to the self-contained economy, in which the state would find it difficult to fulfill its "grain procurement" plan. To fulfill their "grain procurement" tasks, some townships and villages in Shunyi County had to use their industrial profits and funds accumulated by these township and village cooperative economic organizations to purchase grain from the peasants at high prices.

The above problems suggest that contracting land on a small scale does not conform to the development of Shunyi's agriculture and its rural social productive forces. To resolve new problems in the new situation, it is necessary to follow the basic experience in rural reform over the last 9 years, that is, to try to exploit the peasants' initiative and increase agricultural vitality. To do this, agricultural scale management and specialization of production should be introduced to improve agricultural productivity and turn agriculture into an occupation that enables the peasants to become better off. However, because the former equal contract pattern has given rise to a fixed interest structure, further reforms have become very difficult and complex. According to the peasants' ability and the level of average social income the appropriate amount of grain fields each agricultural laborer can handle is 15 to 25 mu. If this principle applies, about 80 percent of agricultural laborers will no longer undertake to contract land and the annual subsidy of 50 yuan for each mu of grain fields will be canceled, along with other benefits resulting from the possession of distribution rights. How to rationally adjust the rural interest structure and bring about a steady change in operational methods is a difficult problem leaders in charge of this agricultural scale operational experiment should resolve.

II

According to the original idea, following the flow of agricultural laborers to nonagricultural production, the peasants would spontaneously transfer the land they were undertaking by contract. But facts have proved that it will take a fairly long time for decentralized peasant households to concentrate their farmlands and exercise agricultural scale management, because they lack a rational mechanism for land transfer. But given the actual situation in Shunyi County, the county party committee and government believe they are equipped with the necessary conditions for carrying out this experiment faster. The first point is that its rural economic development has accumulated favorable economic conditions for reforms. For example, there are employment opportunities for laborers who have left their land, the county enjoys good conditions for agricultural production under which mechanized farming is possible, and its township and village production service organizations are quite competent. The second point is that the right of the collective to possess land for agricultural production can be used to contract land out. The third point is that according to the principle on public ownership of capital goods, laborers are equal in terms of possessing capital goods. But some peasant households have obtained secure positions in nonagricultural occupations, apart from possessing equal shares of small plots of land. This dual possession form has, naturally, led to the formation of an irrational relationship of interests. Therefore there is a need to change this situation so that a more rational combination can be formed between laborers and capital goods. Taking all this into account, leading organs in Shunyi County have boldly but cautiously carried out their experimental work.

1. They have contracted out land in line with local conditions and properly handled the peasants' interests.

After investigation and study, Shunyi County formulated a policy on concentrating land belonging to people of these four categories: 1) Township and town enterprises' employees whose work and income are comparatively stable; 2) contract workers and individual industrial and commercial households who have long-term, fixed income; 3) old or disabled widowers and widows without land management ability; and 4) households specialized in breeding, forestry, and the production of industrial crops.

The grain ration for the peasants who do not undertake land by contract is fixed by village cooperative economic organizations, with varying quantities, types, and prices. In most cases, township and town enterprises' employees buy their grain from villages and earn subsidies for the increased grain prices from the enterprises they belong to; individual industrial and commercial households deliver their profits to the village government, which is responsible for their grain ration; and widowers and widows receive relief grain from the village government. Some peasants want to retain their grain ration fields. This should be allowed. Statistics in the autumn of 1987 showed that 58,336 peasants in the county retained a total area of 28,000 mu of ration fields. Peasants who did not have the ability either to contract for more land or leave their land for other occupations were allowed to continue to undertake their land by contract. These fields "arranged under special consideration" amounted to 59,000 mu in the autumn of 1987. Peasants who did not contract for land went to work in the vegetable fields, livestock farms, and fish breeding areas run by township and village cooperative organizations. Old and weak peasants were allowed to work in the tree-nursing or fertilizer-collecting teams run by the village cooperative organizations. Peasants who did not have the ability to work enjoyed living subsidies from the township or village authorities.

Peasants who are willing to engage in agricultural production may do so by contract on an appropriate scale. The acreage to be contracted can be set by township and village cooperative organizations according to the ability of the peasants. Generally, each laborer is allowed to undertake 15 to 25 mu of land. Land contractors are selected by assessment and tender. First a group composed of cadres and ordinary people is organized to select the land contractors according to their work attitude, production skills, and management ability; then they will be allowed to submit tenders, and those who win will be allowed to contract. An example of a high tender was one in Xipang village, which amounted to 80 yuan for 1 mu of grain fields. Peasants from different villages, townships, and towns may also submit joint tenders so that land can be fully utilized. By the autumn of 1987, 650,000 mu of grain fields in the county were undertaken by contract on an appropriate scale, accounting for 93 percent of the county's total.

What do the peasants think about this? County party secretary Zhang Jinfeng said that it was impossible for the 120,000 peasant households in the county to reach complete unanimity of understanding in adjustment work. However, he added that the majority of the peasants accepted the above practice. This is because the peasants have had a solid concept of public ownership of land and established the mentality of commodity economy in the course of rural reforms. Their yardstick for measuring profit has shifted from "everybody having a plot of land" to cash income.

2. The change in the organizational structure and the development of the output-related contract system.

In contracting out land, a corresponding change in the organizational structure is necessary. The introduction of scale operation has expanded the acreage of farmlands, blazed a new trail for agricultural mechanization and the application of new technology, strengthened the management of production, and encouraged the formation of all types of farms and specialized teams. From the autumn of 1986 to September 1987, 280 villages set up 613 farms, with a total area of 340,000 mu and an average of 18.1 mu for each employee of the farms; 125 villages organized 594 specialized teams possessing a total area of 251,000 mu of land, 15.9 mu for each team member; only 28 villages had not adjusted their economic organizational form, but they also separated the contract for grain ration fields from the contract for responsibility fields, thereby concentrating 22,000 mu of responsibility fields, 12.1 mu for each team.

The emergence of these farms and specialized teams helped renew the agro-economic organizational form based on the double-tier management system. Both these farms and specialized teams adhered to the output-related contract system. A farm generally covers 300 to 500 mu of land and has about 20 laborers whose remuneration is calculated according to the fulfillment of production. Mechanized farming is carried out by village agricultural machinery service teams and the service charge is deducted from production costs. Apart from the functions of carrying out accounting and operation, the farms also have the function of exercising management over plans, production, investments, and the application of technology. A managerial unit of a village cooperative economic organization, a specialized team, manages 300 to 500 mu of land and 15 to 20 peasant households. A peasant household directly signs a contract with the village cooperative economic organization to undertake 15 to 20 mu of land. With the exception of accounting and operational functions, a specialized team has the other functions of a farm. Because the team carries out separate accounting and assumes sole responsibility for its losses and profits, only one or two managerial people are required to run it. A farm or a specialized team may select cadres from the village government or other units, and their pay may be decided according to the economic conditions of the village concerned.

3. The promotive role of agricultural investment and the optimized combination of production factors.

Under management on an appropriate scale, funds can better be used for "agricultural construction." The funds used for agricultural construction at the county, township, and village levels amounted to 40 million yuan in 1987, the highest recorded in agricultural investment. Agricultural investment has become a "bonding agent" for the recombination of production factors. On the one hand, it has helped the shift of agricultural laborers. From 1986 to the summer of 1987, 3,000 mu of vegetable sheds were set up, 20,000 hothouses were built, 7,000 mu of fish breeding ponds were dug, and a number of livestock farms were established, thus providing more employment opportunities for agricultural laborers. On the other hand, agricultural investment has helped improve the economic strength of township and village production service organizations in such a manner that they can provide a reliable material and technological basis for the expansion of farmland management. Because it does not pay for a farm or a peasant household to buy a full set of equipment, a township or village production service organization will purchase machinery to be used by all. From the winter of 1986 to the spring of 1987, township and village production service organizations throughout the county purchased 147 combine harvesters, 240 large and medium-sized tractors, 120 corn seeders, 64 herbicide spraying vehicles, 3 drying machines, and 240 sprinklers and sank 500 wells.

The optimal combination of production factors needs a larger environment for circulation. How can the productive forces be better organized? The cadres and masses in Shunyi County have a good method for this. They have separated the right to use production factors from the right to own them and freed agricultural machinists and technological personnel from the units they belonged to, thus forming "agricultural production responsibility regions" with a nature different from that of economic entities. In the autumn of 1987, 187 production responsibility regions were built in the county. Each responsibility region generally had 2,000 to 4,000 mu of grain fields; each large region was equipped with six sets of agricultural machinery and each small region with five sets; and each region, big or small, had four to six technological cadres who were in charge of the regularization of farming. These responsibility regions broke away from administrative binds and abided by economic principles. The payment and settlement of technical service charges only occurred between owners whereas the wages of machinists and technicians were issued by the units they belonged to. Wages and bonuses were issued only after service quality was verified by the relevant quality controller and the leader of the responsibility region concerned. The introduction of the "agricultural production responsibility regions" ensured a fast and good job in autumn wheat sowing in 1987. In previous years, wheat sowing started on 14 or 15 September and ended on 17 October; but in 1987, it started on 18 September and basically ended on 29 September, which was precisely the farming season.

III

The operational experiment on an appropriate scale in Shunyi County has produced gratifying results. The county's summer and autumn grain output in 1987 increased by 20,000 tons over the previous year, registering a 9.4 percent annual increase and a record for the third time in 10 years. The income of the peasants engaged in agricultural production also rose. Based on the net income of 100 to 125 yuan per mu, each laborer earned 1,600 to 2,250 yuan on average, equivalent to or a little higher than the income of an employee of township or town enterprises. It is true that these agricultural achievements were not all the results of the agricultural scale operational experiment, but it can be said with certainty that the experiment stimulated the initiative of the peasants in production and laid a solid material and technological foundation for future increases in agricultural production.

The experiment conducted by Shunyi County has provided us with practical experience in further studying problems.

1. Concentrating land is the first difficult problem to tackle in the agricultural scale operational experiment. How should we view Shunyi's method of handling the land issue? Its rural collective units used their ownership right of land to draw up new policies on the management of land by contract, and education and guidance should be given to the peasants in the course of contracting out land. This method can be easily mastered by rural cadres and accepted by the peasants. But full preparations should be made to facilitate its popularization. Because the rural market mechanism is still weak, it will take time for rural cadres to promote the circulation of production factors by means of the commodity economy. Therefore organizational interference is necessary in this respect, during which, however, a great deal of meticulous organizational coordination is also indispensable; compulsory means should be avoided, still less should the method of "stirring up a strong wind" be introduced. In particular, efforts should be made to study the rational limits for this organizational interference.

Apart from being a production factor, rural land also has many functions, such as providing social protection, employment, and grain for people. The existence of these functions makes the peasants feel regret at leaving rural land. Shunyi County has brought into play the function of rural land in providing social protection, by resolving the problem of grain rations, providing social relief for those who have lost the ability to work, and blazing employment channels by means of investment.

2. To popularize this agricultural scale operation, it is also important to explore and study the way to concentrate land. Today when capital goods have entered the commodity market, it is of particular importance to boldly suggest that the right to use land be established on

the basis of commodity exchange. In addition, by proceeding from land prices, it is necessary to resolve the short-term use of land, to manage land as an asset, and to appraise the value of land. In this connection, peasants in some rural areas in Shunyi County have conducted very useful experiments. For example, the Zhaoquanying township farm is leasing 4,200 mu of land in five villages, thereby separating land ownership right from land operational right and realizing land concentration. Another example is buying shares by means of land prices, which is being practiced on the Banqiao fish breeding farm. This has posed a new question for us: How should we form a regular, systematized mechanism that will lead the rights to utilize and manage land into the circulation sphere on the basis of public ownership of land with the aim of concentrating land and increasing its value?

3. The emergence of a large number of farm management forms suggests that agriculture is moving toward commercialization and taking up an enterprise nature. However, the thorough commercialization of farms requires that agriculture must have the ability to develop by itself, that is, to completely free itself from the support of other industries so that there is as much profit from agricultural management as from the management of other industries. Thus we are required to straighten out the relationship of commodity exchange between farms and their external organizations and, in particular, the relationship of prices. The distortion of price relationships finds expression in these two aspects: One is that the prices of capital goods for agricultural production have risen by a large margin whereas farms can enjoy low-cost production service from township or village production service organizations and calculate their production costs at low depreciation rates; and the other is that the purchase prices of agricultural products are still a little low and that farms are still responsible for supplying cheap grain to the people in the same villages where the farms are located. These two aspects have given rise to a situation in which the benefit the farms obtain cannot reflect their actual operational results. In a situation where the relationship of commodity exchange is distorted like this, it is very difficult for commercial-type farms to grow to maturity. This is a problem that needs to be probed and resolved in the course of deepening reforms.

An Investigation on the Specialized Market for Plastic Shoes in Bopu Township of Wuchuan County

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[Article by Yang Jingcheng [2799 2529 2052] and Liu Senjun [0491 2773 0193]]

[Text] Bopu Township is situated in the suburbs of Meilu, the seat of Wuchuan County in Guangdong Province. As the cultivated land is extremely limited (the average per capita figure is less than 2 fen of land), and

the natural conditions are poor, the people of Bopu long made their living through cutting hay on the hillside, fishing, poling boats and firing bricks and tiles. Many of the people went off to other areas and worked as casual laborers. Since the liberation, two high tides of peasants engaging in industry and sideline occupations have occurred. The first was in about 1970, when the various production teams successively started up over 70 brick and tile kilns and small factories. However, in 1974, during education on the party line, all the factories were closed down and the labor force "returned to the fields." This resulted in Bopu having to obtain every year from the state over 500,000 yuan in credit, over 100,000 yuan in relief funds and over 1 million jin of unified sale grain. Bopu thus became known throughout the county as a "three-reliances" area. The second high tide occurred in about 1980 when, under the guidance of the line of the 3d Plenary Session of the 11th CPC Central Committee, the people of Bopu greatly developed the shoemaking industry through joint-household operations and household operations. By the end of 1986, the township had 578 enterprises of different types, of which 419 were shoe factories. The remaining enterprises were small enterprises which directly or indirectly serviced the shoe factories. The township had 563 shoemaking machines, of which 438 were vertical injection molding machines and 125 were rotary injection molding machines. The annual production capacity was 100 million pairs, and daily production of plastic shoes could exceed 500,000 pairs. The products include nine major types: reprocessed plastic shoes, new plastic shoes, foam plastic [fa pao 4099 3133] shoes, imitation leather shoes, compound shoes, rubber molded shoes, foam rubber [pao mo 3133 3106] shoes, acrylic cloth shoes and Boston sports shoes. These are produced in 66 varieties and come in close to 2,000 shapes and sizes.

Following the development of the shoe-manufacturing industry, Bopu has seen the formation of a specialized plastic shoe market. The characteristics of this new type market are:

1. It has been established on a large-scale commodity production base. The volume of business just in terms of plastic shoes transacted in Bopu in 1986 exceeded 40 million yuan and it is called the "biggest plastic shoe market in the south."

2. It has open-type, specialized commodity wholesaling. Its wholesale business already extends to over 20 provinces, cities and autonomous regions. Sometimes on the same day there are 300 merchants from other places congregated at Bopu.

3. Supply, production and sales form an interlinked chain. In the shoe-manufacturing industry of Bopu, from the supply of raw materials and additional materials and the design and manufacture of molds, to the maintenance of equipment and production of spare parts during production, and to the post-production packaging, transport and sale, there are relatively independent but closely

linked processes, forming a production system with specialized division of work, and a supply and sales network. The development of specialized division of work meant that quality gradually rose and the prices became lower than in other areas. This had a great attraction for merchants from other areas. The form of sales also gradually changed from where salesmen went to other places to where merchants from other places came to Bopu to select their purchases.

4. The positive role of market competition is fully brought into play. There is both coordination and competition between the producers. Reliance on price twist and other factors to obtain above-quota profits became increasingly less feasible and thus they had no option but to rely on low costs, and low profits with quick turnover to take a share of the market. Prior to 1981, the profit on each pair of plastic shoes in Bopu ranged from 1 yuan to 1.20 yuan. This declined over the years and in 1986 the profit on each pair of shoes had fallen to only 0.10 to 0.35 yuan. In the intense competition, the superior prosper and the inferior are eliminated.

The formation of the specialized market in Bopu has played a very major role in the economic development of Bopu.

First, it has powerfully promoted the development of rural commodity production and the readjustment of the industrial structure. The previous industrial structure comprising solely planting industries has changed to a rational structure, more appropriate to the area, comprising planting and animal-raising industries as well as processing industries, and with manufacturing industry as its main part. In the gross industrial and agricultural output value for 1986, industrial output value totaled 39.16 million yuan, constituting 92 percent of the total. The output value of planting and animal-raising totaled 3.24 million yuan, and constituted the other 8 percent of the total. The commodity rate for industrial and agricultural products has already reached 98.2 percent.

Second, the peasants' income has been greatly increased and their lives have greatly improved. In 1986, the total income of all industries in Bopu totaled 45.29 million yuan, double the figure for 1984 and a growth of nine times over the 1978 figure. The average per capita income for all residents of the township reached 1,200 yuan, an increase of 10 times over 1978. According to preliminary statistics, the people of the township privately own 3 cars, over 80 hand-held tractors, over 200 motorcycles, 149 telephone receivers, over 600 televisions, and over 1,000 radio-recorders or combination sound systems, while each household has on average several electric fans. In the last few years, over 240 new buildings have been put up in the township.

Third, its contribution to the state has grown over the years. In 1985, the township paid 1.76 million yuan in taxes, a per capita average of 175 yuan; in 1986 it paid 2.37 million yuan in taxes, a per capita average of 231

yuan, a growth of 34 percent over the previous year. The tax payments of the township constituted 10.8 percent of the 21.8 million yuan paid in tax by the whole county.

Fourth, it has promoted the formation and development of rural market towns. Bopu was originally a large natural village but was not a market. After the specialized market appeared, a market town was naturally formed. In 1985, with the approval of the provincial people's government, it officially became a district-level township. In the 2 years since the township was established, the township people's government has formulated an overall plan for township construction, built a 6,000 square meter product display and sale market, leveled a 2,500 square meter area for loading and unloading goods, and built a road extension which is 1,500 meters long and 8 to 12 meters wide. At the same time, it continually expanded service facilities for merchants in terms of hostels, restaurants, department stores, regular passenger and freight services and public places of entertainment. It also made overall plans in terms of basic facilities in the fields of water supply, electricity supply, fire services and environmental protection, and strived to create good external conditions for enterprise development.

Bopu's commodity economy is continuing to develop and the specialized market is continuing to expand and now it is possible to initially see the trend of development.

Bopu can remain as a specialized market mainly dealing in plastic shoes for quite some time, but it will gradually change into a comprehensive shoe market.

Although the quality of the plastic shoes in Bopu is not high, they are still good sellers. This is due to the fact that our country has a market structure with many demand levels. Seen from the long term, following the development of the rural commodity economy and the improvement of the peasants' standard of living, consumers' demand for products will change from demand for "low price and low quality" to a demand for "low price and high quality." Thus, only if the shoe-manufacturing enterprises pay attention to technological progress and raise their product quality will they be able to continue to exist and develop.

Following the improvement of the standard of living of the masses, shoes have become an important commodity in people's consumption. In 1985, the volume of retail sales for shoes throughout the country reached 10.18 billion yuan, an 85.78 percent increase over 1980. The per capita individual consumption of shoes was 1.08 pairs in 1980 but by 1984 this had risen to 1.3 pairs. However, the potential of the domestic market is very large. At the same time, because footwear is a labor-intensive product, many of the capitalist countries are engaging in this industry increasingly less, and their footwear demands rely more and more on imports. This is also a very good opportunity for us to expand footwear

exports. In the last few years, there have been great changes in the footwear consumption structure. The proportion of all-plastic shoes has declined, and the proportion of cloth shoes, leather shoes and rubber shoes has grown. Thus, Bopu has not only put efforts into increasing the varieties of all-plastic shoes and raising their quality, but is gradually getting some enterprises to switch to other types of footwear. This will enable Bopu to become a comprehensive footwear industry production and sales base and accord with the market demands.

Bopu also has the conditions, in terms of communications, funds, technology, and equipment to develop into a comprehensive footwear market. If we look at it just in terms of funds, according to 1986 statistics, the value of existing fixed assets of the enterprises of the township was 22.178 million yuan, and its own floating funds totaled 4.872 million yuan. If the state provided just a little support, there will be no problem in developing the shoe-manufacturing industry.

Through the coordinated development of industry and agriculture, each will promote the other.

Bopu adheres to the policy of grasping industry with one hand and agriculture with the other. The township established the Bopu Hillside Planting and Animal-Raising Corporation, made specific plans and invited tenders from the society to develop these areas. In less than a year 12 units and over 20 specialized households took up contracts. The first batch of contracts involve the development of a total area of 1,200 mu and the investment of over 600,000 yuan. The development engineering completed up to now has involved the removal of over 600,000 cubic meters of earth, and over 600 mu of fish-ponds have been completed. After the Bopu hillsides are developed fish will be raised and fruit-trees planted. They will also develop animal-raising industries and carry out comprehensive utilization. Potential annual income will exceed 5 million yuan. In 1986, the total production value of planting and animal-raising industries on the Bopu hillsides reached 1.349 million yuan, over double the figure for the previous year. It can be seen that the Bopu of the future will be a new Bopu with coordinated development of industry and agriculture.

Joint-household enterprises and family enterprises will for a period to come remain the main production organization form in Bopu.

In 1986, there were 578 enterprises throughout the township. Of these 404 were joint-household enterprises and 141 were household enterprises. These together constituted 94 percent of the total number of enterprises in the township. The total income of enterprises in the township was 45.296 million yuan. Of this, the income of joint-household enterprises totaled 29.282 million yuan and that of household enterprises totaled 5.823 million yuan. Together, they constituted 78 percent of the total income of all enterprises.

In Bopu, the earliest form adopted in the plastics industry was joint-household enterprises. The reason why it was necessary for households to join with others was first a matter of pooling funds. At the same time, the majority of people did not understand the technology and lacked management experience. After a period of development, enterprise members learned the technology, mastered the operating methods and market information and also accumulated a certain amount of funds. After this some of the people went off by themselves and started independent operations. This situation certainly did not damage the productive forces. Quite the reverse, as one factory became three, four or five factories, each with a scale not smaller than the original factory. Thus the social productive forces were improved.

Developing joint-household enterprises and household enterprises is one of the routes toward common prosperity. When hundreds or thousands of households run enterprises, hundreds or thousands of households will become prosperous. Not only will the operators become rich, but the life of the workers will also be improved. In Bopu, the annual wages of workers is about 1,200-1,500 yuan. Of course, the income of employers in privately operated enterprises is higher than the workers, and they rely on their possession of means of production in utilizing other people's surplus labor. In this respect, the state should adopt certain regulatory measures. Some private enterprises can also adopt forms whereby workers purchase shares, whereby there is division of profits, whereby there is democratic management or whereby there is communal accumulation drawn off, and then gradually move toward becoming cooperative enterprises. However this transition must be voluntary. It should be affirmed that allowing the hiring of labor in operations is a supplementary form of the socialist economy and will be a long-term policy.

The development of the collective economy will positively serve separate household operations.

The collective enterprises of Bopu mainly include the Bopu Hillside Planting and Animal-raising Corporation, the industrial supply and marketing company, the trading company, the real estate development corporation, the accounting services company, the Lunji brickyard and the Xijie lamp factory. The footwear industry company and the plastics industry company are now being arranged. In 1985, the gross output value of collective enterprises was 1.103 million yuan and in 1986, this rose to 3.744 million yuan. This shows that Bopu's collective economy is also continuing to develop. An important avenue for the development of the collective economy is the provision of pre-production, production and post-production services for the footwear industry. For example, the footwear industry company has adopted new technology, developed new products and played the role of leading enterprise for the joint-household enterprises; the plastics industry company has produced plastic film and imitation leather shoelaces for the

shoe factories; the industrial supply and marketing company and the trading company have organized raw and semifinished materials for the shoe factories and developed new markets; the real estate development corporation has supplied sites (including buildings and public facilities) for the shoe factories; the accounting services company has linked up households and set up accounts for the shoe factories. These services have greatly aided the enterprises' production. As far as the supply of raw and semifinished materials is concerned, in the past the individual factories purchased these from an individual merchant and the price was quite high. After the industrial supply and marketing company and the trade company began operating, just in 1986, close to 1,000 tons of old shoe soles and 151 tons of new pellets of polyacrylic and polyvinyl materials were obtained from outside the province and supplied to several hundred shoe factories in the township. The prices were reasonable and the supply was quite stable. The township supply and marketing company also invested 1.2 million yuan to purchase from outside the province 300 tons of imitation-leather plastic film. This supported the production of close to 100 imitation-leather shoe factories, bringing a large volume of imitation-leather sandals to the market.

In summary, following the development of the shoe-manufacturing industry, the joint-household enterprises, the household enterprises and the collective enterprises of Bopu will all see development. It is predicted that when the collective economy develops to a certain stage, rural industry will be able, like agricultural production, to implement a double-level system involving a combination of both centralized and dispersed operations.

Nietzsche's Aesthetics and Ideology of Literature and Art

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[Article by Ru Xin [3067 0207]]

[Text] The German philosopher Nietzsche (1844-1900) is a controversial figure in the history of modern Western ideology. People's opinions of him differ and there are all sorts of interpretations offered from different standpoints in respect of his ideology. Nietzsche is also often misunderstood. A Western scholar who studies Nietzsche has said: "Nietzsche's life and works are the things subject to the most serious misinterpretation in modern literary history and ideological history." (Footnote 1) (Podach: "Friedrich Nietzsche's Werke der Zusammenbruchs," Heidelberg, 1961, German edition, p 430. In this book he lists a large number of instances where Nietzsche's works have been distorted and misinterpreted) The German Nazis used him with ulterior motives and took him as the pioneer of fascist ideology. Other people, including some profound critics and antifascists from capitalist society have revered him as the "prophet" of the new age of the 20th century. Regardless of the differences in appraisal, one thing can be affirmed. That is, Nietzsche's ideology has had a great and profound

influence on modern Western philosophy and social ideology, and that since World War II, this influence has grown even greater. Some people even believe that if one does not read the works of Nietzsche, it is not possible to truly understand the development of ideology or the literature and art of continental Western Europe in the 20th century. This requires that we carry out serious study and obtain new understanding of Nietzsche and that we use a Marxist viewpoint to make an objective appraisal of him.

Nietzsche, as a philosopher, was a person brimming with contradictions and complexity. His merit lay in that he was frank, and dared to speak his views without concealing anything. Thus his mistaken and even reactionary viewpoints are clearly obvious. The opinions he put forth expressing the primacy of the individual, his disdain for the masses and his opposition to socialism should undoubtedly be criticized and exposed. However, in Nietzsche's ideology, there are certainly some critical elements which are greatly damaging to Western capitalist society. All the traditional ideas, value concepts, morality, religion and culture which are the pillars of existing social order are subject to his destructive attacks. Nietzsche, with special sensitivity, detected in advance the deep-going social crises, spiritual crises and cultural crises which were growing and developing within Western society. He had realized the inevitable decline of the old world and all the values it cherished and wanted to mercilessly negate these. The words "God is dead" were a vivid manifestation of this ideology. He foresaw modern Western man's life in a vexed situation of existing in a vacuum without values and experiencing a sense of having lost himself due to the collapse of his faith. He greatly wanted to struggle free from the mediocre small-man's life, a life of mean wretchedness which smothered individual development. He took the stand of individualism, proposed reassessment of all values and advocated the seeking of self-realization and self-transcendence through continual creation. This has strong appeal for great numbers of intellectuals of all persuasions and viewpoints from right to left who are not satisfied with the situation in modern capitalist society. They can all obtain inspiration from Nietzsche and then sing their own melodies. Thus, the popularity of Nietzsche in the modern Western world is not accidental, and rather has deep social causes. The words of Gottfried Benn, a German poet, spoken in 1950, are representative: "Virtually everything my generation discussed, tried to think through—one might say, suffered; one might also say, spun out—had long been expressed and exhausted by Nietzsche, who had found definitive formulations; the rest was exegesis."

Nietzsche's influence on modern Western literature and art is very great. He was himself a brilliant poet and musical critic, but he did not have an overall theory of literature and art of an aesthetic system. Apart from his early book "The Birth of Tragedy" and some treatises on the composer Wagner, his works do not specifically explore literature and art or aesthetics. However, these

questions were a key area to which he continued to pay attention. His ideas on literature and art and on aesthetics are seen throughout many of his works and they constitute a major indispensable component of his distinctive world-view and philosophy of life which influence a large number of representative figures in the world of literature, including: Thomas Mann, Herman Hesse, Zweig, Rilke, Shaw, Dreiser, Gide, Malraux, Camus, Sartre and China's Lu Xun. In the works of these writers, Nietzsche's ideology plays, to differing degrees, a positive or negative role.

I

Nietzsche's literature and art ideology is expressed, in a focused way, in his book "The Birth of Tragedy." This is a representative work of his earlier period and was the first step in his overall ideological development. On the surface, it is a monograph on ancient Greek tragedy. However, through his distinctive interpretation of Greek tragedy, Nietzsche actually expresses his understanding of life and art, espouses a philosophy of life, and uses it to promote the revival of the German spirit. Thus, the significance of this work far transcends the scope of Greek literary history.

From his early years, Nietzsche was strongly influenced by Schopenhauer's philosophy. In "The Birth of Tragedy" one often sees the stamp of Schopenhauer's influence. However, overall, this work signals Nietzsche's parting of ways with Schopenhauer and the beginning of the road of his own ideological development. According to the viewpoint of Schopenhauer's theory of the will, the entire external world and all objects are only our ideas, and these are also but phenomena. But behind these phenomena there is the "thing-in-itself," which is the will. The will is a "blind, irrepressible impulse," an unknowable, irrational force. It controls the whole world and forms the real essence of the world and even life. As the world is governed by a blind, irrational force, it has no value, and the lives of people in this world have no meaning. The blind force of the will spurs people to engage in eternal seeking to satisfy their desires. But as desires cannot be completely satisfied, there is no hope of eliminating suffering. Thus, life is an "endless dream" filled with suffering. In Schopenhauer's view, the basic method of breaking free from life's suffering was through individual Nirvana, or even stopping reproduction to achieve the extinction of mankind, so as to thoroughly eliminate desire and the will to life. However, art could also temporarily free people from the suffering of life, as in aesthetic contemplation, the subject is temporarily freed from life's desires and forgets itself. Thus art is a type of escape or detachment. And tragedy, as the highest form of poetry, "reveals life's frightening aspects" and enables people to recognize that life's real features are suffering and sadness. Thereby, the will to life is abandoned and one is perfectly willing to "resign" in facing fate. Thus, from the theory of the will to pessimism is the keynote of Schopenhauer's philosophy and aesthetic ideology.

Nietzsche's point of departure was similar to that of Schopenhauer, but the conclusions he came to were completely opposite. He generally agreed with Schopenhauer's views on the world and life, that is he believed that they were subject to the control of an irrational will, which is frightening, causes people to suffer and cannot be understood. However, he opposed Schopenhauer's philosophy of life. Schopenhauer said that as the world and life have no meaning and absolutely no value, the world should be abandoned and this life which brings people only suffering should be negated. However, Nietzsche's response was that although the world has no meaning or value, as we are doomed to live in this world, we should live bravely. In order to enable us to endure this world and this life, we must give them meaning, and we must create new values. In his views on literature and art, Nietzsche was also greatly different from Schopenhauer. If we say that Schopenhauer saw aesthetics and art as means to effect a temporary escape from life, and the role of tragedy was to lead people to "resignation," then Nietzsche believed life must be faced squarely. Art is not a negative escape, but a positive measure of affirming life. It is with assistance from art that the metamorphoses of the world and life become aesthetic phenomena and can be accepted by us, while the enlightenment tragedy gives us is certainly not a negation of life but an affirmation of life. In "The Birth of Tragedy" beauty and art are seen as the only values, and Nietzsche even asserted: "Only as an aesthetic phenomenon may existence and the world appear justified." (Footnote 2) (Nietzsche: "The Birth of Tragedy," Section 24) This can be considered one of the most important theses of "Birth of Tragedy."

Through an investigation of the history of ancient Greek literature and art, Nietzsche points out that the Greeks, in their most creative period, also keenly recognized and felt the terror and tragedy of existence. The bitter experiences of Prometheus, Oedipus, Orestes and other famous characters in Greek literature and art fully showed one side of the suffering of life. However, in order to live on and not be overwhelmed by suffering or have to resign themselves to pessimism, the Greeks created the gods of Mount Olympus. They used art to make the metamorphoses of the world and of life the objects of aesthetics, and changed the callous and frightening real world into an illusory world brimming with sunshine. In this way, the Greeks were able to take a positive attitude of affirmation in respect of the world and of life, rather than a negative attitude of negation. Thus, art emerges from the needs of life and is produced as a guarantee of continued existence. Without art, it would have been difficult for the Greeks to live on. Life itself is a work of art and this fully verifies the value of art. In Nietzsche's view, the entire basis of the Apollonian art and Dionysian art which he proposed lay in this. Although the two are different, even antagonistic artistic tendencies, the aim they both achieve is the affirmation of life. Apollonian art gives the real world an aesthetic veil, which creates a formal and beautiful ideal world. The beautiful images from the dream make up for the

terror and suffering of existence. This art is manifested as the mythology and epics of Olympus and the plastic arts. Dionysian art is not like this. It does not beautify reality, but allows people to completely forget themselves, and directly affirm and embrace frightful existence. As if drunk or mad they become one with the myriad things of nature and sink in limitless exultation. This is manifested as music. The birth of tragedy is the product of the combining of the Apollonian spirit and the Dionysian spirit. It changes existence into aesthetic phenomena but does not give it a veil. Rather, it exposes its real features and at the same time, most powerfully affirms and praises life. This allows people to recognize that "in spite of the flux of phenomena, life at bottom is indestructively powerful and pleasurable." (Footnote 3) (Ibid., Section 7) Although the Greeks were extremely sensitive to the deepest sufferings of life, and profoundly understood the destructive role of nature and history, they did not negate the will to life like Schopenhauer did, collapsing into pessimistic world-weariness. Rather, they were saved by art. Nietzsche said, in tragedy, "the hero, as the highest manifestation of the will, is disavowed for our pleasure, because he is only phenomenon, and because the eternal life of the will is not affected by his annihilation. 'We believe in eternal life,' exclaims tragedy; while music is the immediate idea of this life." (Footnote 4) (Ibid., Section 16) Schopenhauer asserted that the significance of tragedy lies in that it enables people to clearly recognize that life cannot provide any real satisfaction and that it is not worth yearning for life. Therefore tragedy guides people to the concept of "resignation." Nietzsche responded, saying that what Dionysus tells us is nothing like this, that the lessons he gives people are certainly not defeatist, and that this is completely different from the negative attitude of resignation. The real spirit of tragedy lies in that it calls people to drink from the bitter wine of life with exultation, enables people to see beauty in the tragic hero's destruction, and allows them to feel a "higher, all-conquering joy" in suffering.

Clearly, this understanding of tragedy by Nietzsche conveyed a new philosophy of life. Not only were his views opposite to Schopenhauer's, but also different from the traditional viewpoints since Aristotle. Later, in "Twilight of the Idols," Nietzsche when talking of tragedy, pointed out that tragic emotion had been misunderstood by Aristotle and our modern pessimists. "Tragedy is so far from proving anything about the pessimism of the Hellenes, in Schopenhauer's sense, that it may, on the contrary, be considered its decisive repudiation and counter-instance. Saying yes to life even in its strangest and hardest problems, the will to life rejoicing over its own inexhaustibility even in the sacrifice of its highest types—that is what I called Dionysian, that is what I guessed to be the bridge to the psychology of the tragic poet. Not in order to be liberated from terror and pity, not in order to purge oneself of a dangerous effect by its vehement discharge—Aristotle understood it in that way—but in order to be oneself the eternal joy of becoming, beyond all terror and pity—that joy which

included even joy in destroying." (Footnote 5) ("Twilight of the Idols," See Kaufmann: "The Portable Nietzsche," New York, 1954 edition, pp 562-563) Nietzsche himself realized that this was a "brand-new ideology" different from others and thus he said that "The Birth of Tragedy" is "my first reappraisal of all values."

Nietzsche called himself the most extreme opponent and antithesis of pessimism. A major cause of his break with Schopenhauer was his inability to tolerate Schopenhauer's pessimism. He said that "The Birth of Tragedy" was "anti-pessimistic" because it taught people "something which is stronger than pessimism, 'more divine than truth: art.'" (Footnote 6) (Nietzsche, "The Will To Power," 1968, English translation by Kaufmann, p 453) He even believed that so-called pessimistic art itself was a contradiction. "There is no such thing in the world as pessimistic art—art is always affirmative." Thus, "Schopenhauer is wrong when he says that certain works of art serve pessimism. Tragedy does not teach 'resignation.'" Tragedy is certainly not art which endangers life and is certainly not a portent of decline. Rather, it is in essence "affirmation, blessing and deification of existence." (Footnote 7) (Nietzsche, "The Will To Power," pp 434-435, 449)

Proceeding from the viewpoint of affirming and praising life, Nietzsche also engaged in incisive criticism of the Christian ideology of the Western tradition. In the foreword to the second edition of "The Birth of Tragedy," he clearly asserted that his interpretation of the world in terms of pure beauty is the antithesis of Christianity. Christianity takes the absolute truth of God as an absolute standard, looks down on all art and censures it. Nietzsche said: I have always strongly felt that in the Christian concepts and value system there is contained a hatred of life, and this sort of system must, by its preconditions, hate art. From its beginnings, Christianity has detested life and has only used faith in a so-called "other" better life to disguise and conceal its abhorrence of life. Nietzsche criticized Christianity for "hating this world, cursing love, fearing beauty and perceptual things, and slandering life in this world." He said that according to the Christian logic, life overall is wrong, and thus naturally life is subject to disdain, is negated and is seen not only as something which is not worth our longing for, but also as something which has absolutely no value. Nietzsche stated that he had the desire to rival Christianity and thus he gave a completely opposite evaluation of life, and put forward a completely opposite theory, with an aesthetic orientation, which was antithetical to Christianity. He then borrowed the name of a Greek god Dionysus and used that as the theory's name. Later, under the slogan of "God is dead," he engaged in vigorous attacks against Christianity, saying that God is the "greatest antithesis of existence" (Footnote 8) ("Twilight of the Idols," See Schlechta: "Nietzsche's Werke in Drei Banden," Vol 2, p 978), that God is "a proclamation of war against life, nature and the will to life" and so on. (Footnote 9) ("The Antichrist" in "Nietzsche's Werke in Drei Banden," Vol 2, p 1178) These ideas all had their origins in this.

Nietzsche spared no effort in opposing Schopenhauer's pessimism and Christianity, in positively affirming life, advocating bravely throwing oneself into life, and in propagating a positive optimistic spirit of determination to triumph over all suffering. These were the strong points of his literature and art ideology. However, we also have to point out that Nietzsche's theories were established on the basis of idealism and the theory of the will. In his view, literature and art are not reflections of actual life, but means to make up inadequacies of actual life so that people can bear the suffering of life. This is a basic distortion of the nature of literature and art. The optimistic spirit of life which he embraced was not based on the patterns of the historical development of society and an understanding of mankind's future. Rather, he relied on the power of the will and various other similar subjective militant spirits. This type of viewpoint which exaggerates the role of subjective will can develop to a dangerous stage, leading to serious and disastrous consequences. It is necessary to be vigilant in this respect. In fact, both Nietzsche and Schopenhauer used subjectivist and irrationalist viewpoints to view the world and life. They said that all objective existence is false and unreal, brutal and of no significance. What Nietzsche opposed was only Schopenhauer's philosophical conclusions. He did not negate the basic theoretical suppositions. Although he criticized Schopenhauer's philosophy for causing pessimism, dispiritedness and despondence and for promoting a new revival and raising of the German spirit, he still accepted Schopenhauer's basic interpretation of the world. Thus it was difficult for him to completely escape the shadow of the pessimistic view of life. He was only able to place these hopes for revival on various irrational forces, the so-called Dionysian spirit he advocated in "The Birth of Tragedy." That was the prescription Nietzsche wrote for the degenerate German society at that time, and he tried to use this to sweep clean the filthy stable. However, this prescription in no way involved changing the social system and did not rely on any specific social force for implementation. It only employed the subjective spiritual elements of various individuals. Putting it bluntly, this prescription only created a new dangerous illusion for those people who had not found outlets and felt dejected.

II

Nietzsche's influence on the development of Western literature and art lay not only in the aesthetic philosophy of life which he advocated, but also in his special understanding of literary and artistic creation.

The Apollonian spirit and the Dionysian spirit are the two most important concepts which Nietzsche put forward. He not only used them to interpret the history of ancient Greek literature and art and even all literature and art, but also used them to explain the essence of literary and artistic creation. Apollo and Dionysus were two gods of Greek mythology, and Nietzsche used their names as metaphors for the two basic powers which

promote the emergence and development of art. According to him, these are the two basic artistic impulses and only with these is there the real motive force for artistic creation. All real art must be either Apollonian or Dionysian or a combination of both, and the nature of any art from any time is determined by which of these two motive forces plays the leading role. Thus, although Apollo and Dionysus came from Greek mythology, they were made abstract, universal and absolute by Nietzsche, and changed into basic principles for interpreting all literary and art creation.

Nietzsche did not believe that art was the only field in which the Apollonian spirit and the Dionysian spirit play roles. They could, without the need for human artists as intermediaries, emerge from the natural world itself, and were also manifested at the lower and more basic levels. These were the two physiological phenomena: dreams and drunkenness. The Apollonian spirit is manifested in dreams. The dreams are an illusion but they give people beautiful views, allowing them to cast off the suffering of fluctuating existence. It is in dreams that people directly control form, and when contemplating a beautiful illusory world they obtain the utmost happiness. Nietzsche said that the beautiful illusions of this dream world not only are the preconditions for all plastic arts, but also the preconditions for poetry, and that every person in creating beautiful illusions proves himself a skilled artist. Apollo is the god of light and, under his illumination, all appears in a clear individual form and beauty in form is stressed. Thus, he deserves to be called "the glorious divine image of the principle of individuality." (Footnote 10) ("The Birth of Tragedy," Section 1) The spirit of Dionysus is the opposite. It is manifested as drunkenness. In a situation of drunkenness, the individual loses himself. Thus this is said to be "the collapse of the principle of individuality." (Footnote 11) (Ibid.) Drunkenness can be directly induced by narcotics, and can also be induced by the coming of spring. This is an experience like wildness and brings with it a mystical significance. People enter a high degree of intensity, and on the one hand feel a wild joy and on the other also feel suffering and a fear. People discard the barriers between things, break down all the taboos, and do away with self-restraint. They yield to their own primal instincts, sing and dance and become intoxicated in the collective revelry. The individual and the surroundings fuse into one and again the universal harmony and the primal unity are revived. Thus, in Nietzsche, the artistic impulse is summed up as physiological instinct, and the motivation for artistic creativity is deeply rooted in man himself.

If we compare them, the importance Nietzsche gave to the Dionysian spirit was clearly greater than that he placed on the Apollonian spirit. He pointed out: "The Dionysian elements are, as compared to the Apollonian elements, the eternal, original artistic force, because it is they which enable the phenomenal world to exist." (Footnote 12) (Ibid., Section 25) The Apollonian spirit was secondary, and if it was divorced from the former it

could not exist. This viewpoint was put into effect in Nietzsche's concrete explanation of the development of Greek literature and art. The Dionysian impulse was not only seen as the deepest and most primal level in the production of the entire gamut of brilliant Greek literature and art, but also as having played an irreplaceable, decisive role in the birth of the most beautiful flower of Greek literature—tragedy. In Nietzsche's expositions, that which is most worthy of attention is his stressing of the irrational, unconscious factors in literary and artistic creation. This can be said to be an extremely important viewpoint which has had a great influence on the development of modern Western literature and art. People generally believe that the Apollonian spirit stresses beauty in form and pays attention to moderation and tolerance, and seems to lay stress on the intellect. However, if it is closely scrutinized, as it is manifested as dreams and is an impulse which creates hallucinations, it must itself inevitably have irrational, unconscious elements. As for the Dionysian spirit, it is the deepest primal instinct of man and can be said to be basically part of the irrational, unconscious region. Nietzsche held that the highest achievements of Greek literature were all facilitated by the force of irrational elements. As soon as Socrates' rationalism assumed the leading position, Euripides tried to make tragedy rational and exclude the primal and strong Dionysian tragic elements. This led to the suicide and destruction of tragedy, and for a time, that brilliant Greek literature and art saw overall decline due to this. In the past, the traditional German aesthetics, from Winckelmann and Lessing to Hegel, always used a rationalist viewpoint to interpret Greek culture and revered the ideal of beauty as the standard of literary and artistic creation. These views long ruled study of the classics. Nietzsche opposed the tradition and revealed another aspect which had been neglected previously—the role of the irrational element in the formation of the Greek spirit. He proposed going beyond Lessing's "Laokoon" and seeking new avenues so that, through Dionysus, the real Greek spirit could be reborn. The influence of this not only injected new substance into classical studies but changed the orientation of development of all Western literary and art thinking and even of social philosophy. In brief, 19th century Western culture was ruled by rationality and science. After Nietzsche, the trend changed and the irrationalist tide began to prevail. This ideological tide certainly did not begin with him, but the irrationalism and the appearance of the vivid visage of Dionysus had special appeal and attracted many people. The various diverse irrationalist schools of philosophy and of literature and art drew rich ideological nourishment from Nietzsche. Thus, the great growth of this ideological trend in the 20th century is closely connected with Nietzsche's influence.

Nietzsche, in his analysis of the creative psychology of artists also placed stress on the role of irrationality and the unconscious. He said: "If there is to be any art, if there is to be any aesthetic doing and seeing, one physiological condition is indispensable: frenzy. Frenzy must first have enhanced the excitability of the whole

machine, else there is no art." (Footnote 13) (Nietzsche, "Twilight of the Idols" in "The Portable Nietzsche," p 518) The forms of frenzy are diverse, and above all stands the frenzy of sexual excitement, the most ancient and original form of frenzy. There is also the frenzy which follows all great cravings, all strong effects; the frenzy which appears at feasts and contents, the frenzy of cruelty; as well as the frenzy produced by meteorological influences and by the influence of narcotics. The essential common element in these frenzies is the feeling of increased strength and fullness of energy. Nietzsche said: "Out of this feeling, one lends to things, one forces them to accept from us, one violates them—this process is called idealizing." (Footnote 14) (Ibid.) Thus artists begin creating through physiological instincts and this occurs in an unconscious psychological state. In the process of creation, the artist uses his own bountiful strengths to make other things rich, to transform things, until they mirror his own perfection. This having to transform into perfection is art, but this process does not originate in the artist's consciousness. Thus in the entire process of literary and art creation, the irrational and unconscious factors occupy the governing position.

In his autobiographical work "Ecce Homo" Nietzsche called himself an "unparalleled psychologist." He examined people's activities from the angle of psychology and this included the phenomenon of the unconsciousness in the activities of literary and art creation. He held that if we overlook the irrationality of people's actions and their "underground" source, it will not be possible to understand the spirit of man. He did not consider that people have any fixed nature, nor see consciousness only as an outward phenomenon of such a nature. Rather, he felt that below the conscious level, there was a psychological structure of many levels but that no-one knew anything about these. (Footnote 15) (Nietzsche, "Experience and Fiction" in "The Dawn," Section 1) The issues raised by Nietzsche directly inspired Freud. Freud deeply admired Nietzsche and saw him as his ideological forerunner. He felt that the degree of insight achieved by Nietzsche was greater than that realized by any person in the past and probably greater than would be realized by anyone in the future. (Footnote 16) (See Kaufmann, "The Discovery of the Spirit," Vol 2, 1970 English edition, pp 47-49) Nietzsche's influence on all schools of psychoanalysis was very deep. As a researcher has noted: "Nietzsche can be seen as the common source of Freud, Adler and Jung." (Footnote 17) (Ellenberger, "The Discovery of the Unconscious," 1970, English edition)

The irrational and unconscious factors in artistic creation are a complex question. As an artistic phenomenon, their existence seems difficult to call into question, and many writers and artists (such as the great German poet Goethe) have proved this point with their own experiences. It should be recognized that this question has not been scientifically explained to people's satisfaction. It cannot be denied that Nietzsche pointed out this existing fact and drew people's attention to it. The

problem is that he exaggerated these irrational, unconscious elements as absolute, and said that they are the guiding, decisive elements in artistic creation, making the Dionysian impulse predominant and the creator of art. In this way, he takes man's primal instincts, and even the base, animal instincts as the motivation for art. However, he ignores the fact that literature and art are products of the highly creative spiritual labor of mankind and denies the decisive role, in artistic creation, of the conscious initiative which distinguishes man from other animals. Nietzsche reversed the order of importance of rationality and irrationality, consciousness and unconsciousness and it was inevitable that this would lead him to mistakes.

III

Nietzsche also made some expositions on the nature and role of beauty and art, and these are worthy of attention. In various senses, these can be said to be further development of his aesthetic philosophy of life.

First we will discuss Nietzsche's understanding of beauty. Nietzsche's basic point of departure was the belief that aesthetic value was only something created by man, and it had nothing to do with the objective world. He noted that beauty makes it easier to pass our lives, but it certainly is not real. As beauty is our subjective creation, there is nothing more relative than a sense of beauty. He said that, beginning with Plato, there have always been people seeking absolute beauty or the so-called "beauty in itself." However, the "beauty in itself" which people admire "is a mere phrase, not even a concept." In fact, beauty is the creation of man himself, and it is created with man himself as the standard. Nietzsche wrote: "In the beautiful, man posits himself as the measure of perfection; in special cases he worships himself in it. A species cannot do otherwise but thus affirm itself alone. Its lowest instinct, that of self-preservation and self-expansion, still radiates in such sublimities. Man believes the world itself to be overloaded with beauty—and he forgets himself as the cause of this. He alone has represented the world with beauty—alas! Only with a very human, all-too-human beauty.... At bottom, man mirrors himself in things; he considers everything beautiful that reflects his own image: the judgment 'beautiful' is the vanity of his species." (Footnote 18) (Nietzsche, "Twilight of the Idols" in "The Portable Nietzsche," p 525) If some people have doubts and ask: Is the world really beautified by the fact that man thinks it beautiful? To this Nietzsche would reply: Man has humanized the world, that is all.

Nietzsche's views have a strong humanistic hue. The ancient Greek Pythagoras put forward the famous proposition "Man is the yardstick for all things." Nietzsche actually applied this proposition in aesthetics and took man as the yardstick for beauty. In his view, the world originally had nothing called beauty or ugliness. It was only when man humanized the world that beauty was produced. Without people, there can be no such thing as

beauty. This aesthetic view which takes man as the standard, which stresses that beauty is created by man and that man is the source of all beauty, and which fully affirms man's subjective dynamic role in the process of creating beauty, has some rational elements. However, this subjective dynamic role of man was developed idealistically and abstractly by Nietzsche, and one-sidedly exaggerated by him. The core of the problem is that he did not understand that the "humanizing" of the world is realized through the social practice, and especially through the labor practice, of man. What he calls "humanizing" is only the projection or externalization of the will to life or the will to power in the objective world. This is different, in principle, from what Marx called "humanized nature."

Proceeding from the above viewpoint, Nietzsche put forward his two basic principles of aesthetics. He said: "Nothing is beautiful, except man alone: All aesthetics rests upon this naivete, which is its first truth. Let us immediately add the second: Nothing is ugly except the degenerating man—and with this the realm of aesthetic judgment is circumscribed. (Footnote 19) (Nietzsche, "Twilight of the Idols" in "The Portable Nietzsche," p 526) Beauty and ugliness are precise opposites. This primarily proceeds from a physiological viewpoint. The ugly weakens man, dispirits him, and reminds him of decay, danger and impotence. When he sees something ugly, it deprives him of strength and the effect of the ugly can be measured with a dynamometer. Man's feeling of power, his will to power, his courage, his pride—all fall with the ugly and rise with the beautiful. Thus Nietzsche saw ugliness as a sign of degeneration. He believed that man hates ugly things because his deepest hate is "the decline of his type," and that here he hates out of the deepest instincts of the species. Later Nietzsche further said that beauty and ugliness are biological values and that both are useful, beneficial things which raise life and which give us a sense of beauty, that is, a feeling that our sense of power is growing. Conversely, ugliness means the degeneration of the type and the decline of organized strength, the decline of the will. "Thus, the beautiful and the ugly are recognized as relative to our most fundamental values of preservation. It is senseless to want to posit anything as beautiful or ugly apart from this." (Footnote 20) ("The Will To Power," p 423)

It can be seen that Nietzsche's humanist ideology of aesthetics is closely combined with a biological viewpoint. He had studied Darwin's theory and thus his biological interpretation of beauty and ugliness clearly was influenced by Darwinism. However, in his own interpretation he also mixed in his will to power theory, and thus beauty was not only a value in biological terms such as "vanity of the species" or self-preservation, but also a manifestation of power. Beauty became "the highest portent of power." If it is said that even if the biological aesthetic viewpoint cannot satisfy people, it does contain some materialist elements, then it should be noted that the advocating of the theory of the will involved in the will to power finally destroys these few materialist elements.

Now we can discuss Nietzsche's views on the nature and role of art. Previously, we have noted that the philosophy of life in Nietzsche's aesthetics gives the highest place to art. For many centuries past, Christianity had always ruled Western society. Some people point out that Nietzsche was the first Western thinker to put forward the idea that after the end of the rule of Christianity, art could replace religion. Nietzsche indeed also saw art as the antithesis of religion. He said: "Our religion, morality and philosophy are decadent forms of man. The counter-movement: art." (Footnote 21) ("The Will To Power," p 419) Later, in notes he wrote when looking back on "The Birth of Tragedy," he even put forward the slogan "art is everything" and made this appraisal of art: "Art is the great means by which life becomes possible, the great inducer of the quest for life, the great stimulant of life"; art is also the best force of resistance against the will which negates life; and for those seeking knowledge, those who act and those who suffer, art is the emancipator. In Nietzsche's view, the real world is this brutal, frightening and dubious. In order to conquer reality and be able to live on, people need to "lie." In the past, metaphysics, morality and religion were simply different forms of "lies," while now that "God is dead," these things are no longer efficacious, and there is no option but to seek help from art. Man wants to reestablish faith in life, and thus relies on the "savior" of art. Art, like the exuberant vigor of an animal, makes man love life and, like the effect of a tonic, it increases man's strength and ignites the lust for life. Thus, Nietzsche saw art as an effective weapon against pessimism and religious nihilism. However, if people believe that art is real, that is wrong, because art is still only a necessary "lie." Traditional aesthetics generally stressed the unity of truth, goodness and beauty. Nietzsche held that art seeks only beauty and has nothing to do with truth or goodness. The ultimate question in life is not moral or scientific, but relates to art. For example, if the world is beautiful, and this enables people to live on, why is it necessary to probe further? He even claimed that for a philosopher to say that "goodness and beauty are unified" is a shameful act, and felt that any philosopher who says that "truth, goodness and beauty are unified" should be flogged. This is because, in his view, "truth is ugly." "We have art so as to avoid being destroyed by truth." (Footnote 22) ("The Will To Power," p 435)

Proceeding from this distorted view of the nature of art, Nietzsche completely denied that art had a role in reflecting reality and in understanding reality. He was very scornful of realism in art and even held that it could not really exist. In the same way, he did not accept the moral and educational role of art, believing that there was absolutely no universal or eternal morals. The moral concepts preached in the past were mostly lies established on the basis of Christianity, and thus he declared himself "the first amoralist." Nietzsche's negation of the role of art in understanding and its moral role was of course wrong, and the root of this error lay in the world view of his irrationalist philosophy. However, we cannot conclude from this, as many others have done, that

Nietzsche was an supporter of "art for art's sake." He clearly pointed out: "When the purpose of moral preaching and of improving man has been excluded from art, it still does not follow by any means that art is purposeless, aimless, senseless.... Art is the great stimulus to life; how could one understand it as purposeless, as aimless, as art for art's sake?" (Footnote 23) ("Twilight of the Idols" in "The Portable Nietzsche" p 529) Thus it can be said that he did not deny that art has a social goal and a social role. However, he did have a different understanding of this, and he advocated the affirmation, from a higher sense of "art for life's sake," of the goals and roles of art. All of Nietzsche's attacks on romanticism and criticism of modern culture proceeded from the premise that art should serve life.

As art has an important role, artists should assume their own lofty mission. Nietzsche called poets "guides to the future." He believed that all the surplus strength which has not been used and which exists in modern man should be used in a fixed goal, not describing the present or recovering or summing up the past, but pointing out the way to the future. However, poets and political economists are different and their task is not to forecast a better social situation or the prospects for realizing this situation. Rather, they should portray a good image of man. The poet helps create the future by portraying an image of the new man. Nietzsche said that this road to the future was begun by the great German poet Goethe.

However, the development of 20th century Western literature and art mercilessly shows: Although Nietzsche's ideology helped to break down the old world, it could not point clearly to a correct road to the future. Some progressive writers derived from him the courage to struggle with the repulsive reality of life, but did not create an image of the new man for the builders of the new society. As to the more numerous modernist writers who were influenced by him, contrary to his predictions, the image of the modern Western man they created was not a fighter in society, but a mediocre person who is cynical, just drifts along, is decadent, has lost hope, is hesitant and has absolutely no ideals in life (persons such as Roquentin in Sartre's writing). Is this not the greatest satire of history?

Why Is It Necessary To Regard the Practices Conducive to the Development of Productive Forces As the Starting Point for Considering All Questions and As the Basic Criterion for Testing All Work?

HK010907 Beijing HONGQI [RED FLAG] in Chinese No 3, 1 Feb 88 pp 41-42

[Article by Zhou Suyuan [0719 3307 3293]]

[Text] In the initial stage of socialism, it is necessary to regard practices conducive to the development of productive forces as the starting point for considering all questions and as the basic criterion for testing all work.

This is a major theoretical contribution made by the report to the 13th CPC Congress. This is also an important principle we should follow.

First, this is required by the objective laws governing social historical development. Historical materialism has revealed the following law: Productive forces constitute the essential motive force giving impetus to social progress. Productive forces determine production relations, while the latter should correspond to the former. In the final analysis, a society's being at a certain stage of historical development is determined by the given productive forces. The turning of a millstone by hand gave rise to a feudal society, while the large-scale machine industry gave rise to a capitalist society. The development of human society from one formation to another and the development of a society from a lower to a higher stage are the eventual outcome of the tremendous changes in production relations and the superstructure effected by the development of production forces. In a socialist society, the contradiction between productive forces and production relations and between the economic base and the superstructure is still the basic contradiction giving impetus to social development. To correctly resolve this basic contradiction, it is necessary to regard the practices conducive to the development of productive forces as the starting point for considering all questions and as the basic criterion for testing all work, pay attention to and promote the development of productive forces, and gradually consolidate and perfect the socialist system through developing productive forces. However, during the 20-odd years from 1958 to 1978, we made mistakes precisely on this fundamental issue. We neglected the decisive role of productive forces, put undue stress on transformation of production relations, and regarded larger size and a higher degree of public ownership, egalitarianism in distribution, and centralization in economic management system as good things. Such views and methods which were overanxious for quick results and a higher degree of public ownership ran counter to the principle that production relations should correspond to productive forces. As a result, the development of productive forces was hindered and the country remained backward for more than 20 years. We must remember this profound, bitter lesson.

Second, it is required by the fundamental task of a socialist society. The fundamental task of socialism is to emancipate and develop productive forces. In the final analysis, the purpose of overthrowing the old society and building a new one was to smash the trammels hindering the development of productive forces and establish new production relations enabling the productive forces to develop faster than those under capitalism, creating labor productivity higher than that under capitalism, and eliminating the three major differences and realizing communism through developing productive forces. We placed class struggle in an important position during the democratic revolution because only by overthrowing the rule of the reactionary class and when the laboring people were free from political oppression and economic

exploitation could we emancipate the productive forces. When the exploiting class was abolished, when the laboring people became masters of the country, and when we entered the period of socialist construction, the development of productive forces had to be our central task and the starting point and basic criterion for considering all questions and testing all work. Our revolutionary teachers clearly explained this truth. When the proletariat assumes political rule and deprives the capitalists of their powers, Marx and Engels pointed out long ago, it is necessary to "increase the total amount of productive forces as quickly as possible." ("Selected Works of Marx and Engels," Vol 1, p 272) Following the October Revolution, Lenin also pointed out: "We must give priority to the essential task of establishing a social economic system higher than the capitalist society. The essential task is to increase labor productivity." ("Selected Works of Lenin," Vol 3, p 509) During the initial period after the founding of the PRC, Comrade Mao Zedong said that the focus of our work should be shifted onto economic construction and technological revolution. In addition, the Eighth CPC Congress clearly put forward the principle for shifting the focus of work. Owing to the influence of the "leftist" ideological guidelines, however, this principle was not implemented and "taking class struggle as the key link" was adhered to until the decade-long "Great Cultural Revolution" which neglected the fundamental task of developing productive forces. Following the 3d Plenary Session of the 11th CPC Central Committee, our party profoundly summed up historical lessons and shifted the focus of its work. Comrade Deng Xiaoping repeatedly emphasized that the fundamental task at the historical stage of socialism is to develop productive forces. Only by understanding socialism with the criterion of productive forces and taking the development of social productive forces as an essential criterion for judging socialism can we adhere to scientific socialism which has great vitality, and build socialism well.

Third, it is required by the common interests of the people of the whole country. China, which is in the initial stage of socialism, has a large population. Its foundation is poor and its economic and cultural development is uneven. These constitute our basic national conditions. The contradiction between backward social production and people's increasing material and cultural needs is the main contradiction confronting us. If we do not try our utmost to develop social productive forces under such circumstances, it will be impossible to make the country strong and prosperous and to improve the people's living standards. Moreover, our socialism will have lost its attraction. The 13th CPC Congress clearly explained that China is in the initial stage of socialism. On the one hand, China has basically established a socialist economic system and a socialist political system; and on the other hand, the level of our productive forces is still relatively low and our socialist system is as yet immature and imperfect. Only by gradually improving the people's living standard materially and culturally on the basis of developing productive forces can the

people realize the superiority of socialism and can our socialist cause be invincible. Why is it necessary to uphold the four cardinal principles? Because this is the only way to ensure the development of productive forces and lead the people to common prosperity. Why is it necessary to adhere to reform and opening up? Because only by doing so can we rapidly develop the productive forces and improve the people's living standards from having enough to eat and wear to a comparatively well-off, and much higher level. Thanks to the focus of work being shifted after the 3d Plenary Session of the 11th CPC Central Committee and to the efforts made to develop productive forces, tremendous changes have taken place in economic and other fields, remarkable successes have been achieved, and the people have enhanced their confidence in socialism. All this shows that only by developing productive forces can we improve the people's living standards and can our socialism be attractive.

To sum up, we should regard the practices conducive to the development of productive forces as the starting point for considering all questions and as the basic criterion for testing all work. All things advantageous to the development of productive forces should be encouraged as they conform to the fundamental interests of the people and are required by socialism. All things disadvantageous to the development of productive forces should be checked and discarded as they run counter to scientific socialism and the fundamental interests of the people. Regarding the question of socialist construction and transformation, the criterion of truth applied to test practice is tantamount to the criterion of productive forces. By applying the criterion of productive forces to judging things, we will realize that the development of diverse economic sectors under the predominance of the public sector, the various forms of distribution based on distribution according to work, the implementation of the contracted responsibility system and leasing system, and the establishment and development of a socialist market system which includes the markets for means of production, capital, technology, information, and labor are all conducive to the development of social productive forces. They belong to socialism and not capitalism. So long as we regard the development of productive forces as the starting point for considering all questions and the basic criterion for testing all work, we will be able to increase our awareness in implementing the line since the 3d Plenary Session of the 11th CPC Central Committee, emancipate our minds, make bold explorations, smash the trammels of rigid thinking, draw a clear line of distinction ideologically between scientific socialism and other utopian ideas, make practical efforts to develop productive forces, and push reform and construction forward.

How Do We View the Development Strategy of Import Substitution and Export Substitution?
HK011105 Beijing HONGQI [RED FLAG] in Chinese
No 3, 1 Feb 88 pp 42-43

[Article by Li Yushi [2621 7183 2514]]

[Text] Import substitution in general means that in the process of economic development, a country consciously promotes the development of some of its industrial

departments through state policies, and gradually substitutes domestic products for products originally imported, and thus raises its level of industrialization. To successfully implement the strategy of import substitution, a country in general should fulfill four conditions: First, the country must have already established an initial industrial foundation; second, its domestic market must be expanding continuously, and able to provide substantial consumption power for domestic industrial development; third, it must have abundant natural resources which can provide a substantial material foundation and continual strength for domestic industrial development; and finally, the country should adopt trade-protective measures such as high tariff rates, import restrictions, double or multiple exchange rates, and so on. Since World War II, most developing countries have implemented a development strategy of import substitution in two separate stages. In the first stage, domestic light and textile industries, which are labor-intensive, are developed to substitute for imports of the means of livelihood. In the second stage, basic domestic industries and heavy industries, which are capital-intensive and partially technology-intensive, are developed to substitute for imports of the means of production.

The implementation of the strategy of import substitution can enable developing countries to establish industrial departments which are essential for the development of their domestic economy, so that they can gradually become independent in economic development, and so that the material foundation for them to get rid of their economic reliance on foreign countries is thus laid. However, if this development strategy is not adopted appropriately, the following drawbacks will result: First, the strategy of import substitution in general is implemented under the protection of high tariffs. This type of protection is undoubtedly essential in the primary stage of industrial development of developing countries. However, there is a certain limit to the implementation of protective policies. If this limit is exceeded, negative effects on economic development will result. This is because excessive protection will isolate the domestic market from the international market, and the motivation for domestic enterprises to adopt advanced technology and to reduce costs will thus be curtailed. Second, due to the lack of a competitive environment, the industrial departments established under the state's protection will usually achieve low economic returns and produce poor quality products, and wastage in productive resources and unbalanced allocation of the means of production will also result. Third, in the process of the implementation of the strategy of import substitution, export growth in general is slower than production growth; and for a considerable time the demand by domestic industries of developing countries for imported machinery and equipment and raw materials, and the demand by the domestic population for consumer durables, will continue to expand. Thus, the balance of

foreign exchange income and expenditure will be in a deficit situation for a long period of time, and the shortage of foreign exchange will constrain social economic development.

Export substitution is also termed export-oriented development strategy. It means that a country's economy is being switched to focusing on producing processed industrial products for export, and the original development method, focusing on exporting primary products, is thus replaced. The objective of this strategy is to first develop industrial product exports so as to bring along the country's economic growth through foreign trade development. The implementation of the export substitution development strategy is advantageous to full utilization of domestic resources, placing more sophisticated processed products on the international market, increasing foreign exchange income, accelerating the drawing in of foreign funds and the import of advanced scientific technology, and bringing along steady growth of the entire national economy through the significant development of foreign trade and related industries. Export substitution is an inevitable result of the development of import substitution. This is because without the implementation of the strategy of import substitution, which provides the material foundation for export industries, export of industrial products can never be vigorously developed. A country's strategy of import substitution can be implemented according to its economic conditions and economic policies. However, it is not the same for the strategy of export substitution, which is not only constrained by the economic structure, allocation proportions of the means of production, level of development, and policies and measures of a country, but also influenced by changes in the world market situation. In order to make the strategy of export substitution a success, a country should have both the internal and external conditions. The internal conditions are: 1) The country must have a diversified domestic economic structure and productive activities. 2) Its scientific and technical development must have reached a certain level. For instance, it must have production standardization, quality control of products and marketing techniques, and a thorough understanding of foreign markets and consumption behavior. 3) The state must implement policies and measures that encourage export. For instance, the state can offer favorable tax terms to export production enterprises, exempt from taxes products the export of which are encouraged, levy low tax rates on ordinary export products, and so on. The external conditions depend on: 1) The demand in foreign markets for the country's products. 2) The degree of competition in the international market from products in the same categories as the products of the country. 3) The trade policies of relevant countries, particularly advanced countries, toward the country's exports.

China is a socialist as well as a developing country. Since the 3d Plenary Session of the 11th CPC Central Committee, the policy of opening up to the outside world has become a long-term basic state policy of China. In order

to accelerate China's socialist modernization, China should strengthen its international economic connections, vigorously develop foreign trade, and use fully foreign markets, funds, and advanced technology. In addition, China should define its foreign trade strategy, proceed from its realities, draw lessons from other developing countries, and choose a development path that fits the situation of China and has Chinese characteristics. Over the 38 years since the establishment of the PRC, China has already developed a complete and independent industrial structure. Its industrial development started late, though the domestic market is large. For some industrial departments which have strategic significance to the national economy, and for newly established industrial departments which will have an important role in future economic development, but which currently are not very strong, the state should formulate appropriate protective policies to ensure their development. Without such practices, China can never really develop into a strong, socialist, modernized nation. Therefore, it is indispensable for China to adopt the development strategy of import substitution in the future. On the other hand, we should adopt more export substitution policies and measures in accordance with China's current realities of social and economic development. Otherwise, China's industry cannot enter the world market and its export trade can never attain a more rapid rate of development. Specifically speaking, this means implementing export-oriented development strategy in industries and areas that have suitable conditions, such as the light and textile industries and coastal areas. Regarding basic industry and heavy industry, and the vast area of the interior, we should focus on developing the strategy of import substitution. Comrade Zhao Ziyang pointed out that we should put strengthening the capability to earn foreign exchange through exports on our important agenda. In particular, special economic zones, coastal open cities, and open regions should play a more significant role in earning foreign exchange through export; and special economic zones should advance toward the goal of establishing an export-oriented economy. At the same time, we should positively develop the policy of import substitution, and work hard at raising the level of making technology Chinese. Only with these practices can we strengthen our capability to occupy an independent place among the world's nations, and can China's socialist modernization be developed rapidly.

13th Lecture of Forum on Socialist Commodity Economy: Distribution According to Labor Under Conditions of Socialist Commodity Economy
40050156j Beijing HONGQI [RED FLAG] in Chinese No 3, 1 Feb 88 pp 44-46

[Article by Xiao Mei [2556 2734]]

[Text] I. Distribution According to Labor Is the Essential Principle for Distributing Goods for Personal Consumption Under Socialist Conditions

The basic principles employed in the distribution of goods for personal consumption under the conditions of socialist commodity economy determine the development of social productive force as well as the nature of ownership concerning the means of production.

The socialist commodity economy bases itself on the public ownership of the means of production. The principles for distributing goods for personal consumption must, therefore, meet the requirements of public ownership. In public ownership, laborers are the master of their own affairs and their products are jointly owned by them. They thus have the right to the distribution of products. Though the means used as the standard of distribution may be affected by various factors, they must meet the requirements of public ownership economy. First, no individual laborer is allowed to seek more profit than anybody else by using the public properties. Though the production conditions may adversely affect the collective labor achievements and the distributable total income of an enterprise, they are by no means the yardstick for the distribution of personal income. Second, under the conditions of socialist public ownership, laborers are the master of means of production rather than hired laborers. In addition, the nature of their labor is not a commodity. Therefore, we should not take the value of labor, or the cost of reproduction of labor-power, as the standard for distribution of personal income. In terms of history development, the distribution according to labor under socialist conditions is a progress from the distribution according to the value of labor power under the capitalist employment system, for it negates the existence of exploitation.

Under the socialist public ownership, goods for personal consumption cannot be distributed equally or according to needs. Rather, we can only distribute them according to labor. This is because of the development of productive forces, and labor characteristics, at a particular stage of socialism. On the one hand, it is impossible for us to implement the principle of distribution according to labor when the productive forces have been substantially developed but are yet to be fully developed, and the supply of material products is far from abundant. On the other, the quality and amount of labor spent by a laborer on a job differs from those by another because of differences in their labor ability. We must not practice equalitarianism on the part of distribution for personal consumption. Instead, we can only take laborers' labor contributions as the yardstick for distribution. Those who work more will get more, and those who work less will get less. The distribution according to labor, together with a rational differentiation of income, will help us mobilize the initiative of laborers in production and work.

Distribution according to labor is a distribution principle of the public ownership economy. As China is at the elementary stage of socialism, its productive forces are still very backward. Its economic system is neither mature nor perfect. Under these circumstances, China

must, under the prerequisite of focusing on public ownership, develop various corresponding constituents for the economy. It will also inevitably develop a situation where distribution according to labor is the main content and various distribution forms are found. Distribution according to labor is therefore not an exclusive principle for distributing goods for personal consumption under socialist conditions. First, the amount of individual income in individual and private economies is determined by the capital conditions, the market role, individual labor and other factors, rather than the distribution according to labor. Second, in the wake of development of the commodity economy under the public ownership, the total income of some laborers may include income which is an extra and is not distributed according to labor. For instance, generally speaking, the income of an enterprise operator is a kind of labor income. But part of the income is actually returns for taking risks, in respect of which we must not regard as income from distribution according to labor. In another example, interest, dividends and bonuses received by an individual on savings, loans and shares are not distributed according to labor. These forms of distribution should be preserved as they help us develop the social productive forces without affecting the dominant role played by the practice of distribution according to labor. Third, in the wake of development of the socialist commodity economy, enterprises may recruit from the labor market qualified personnel who are needed by society or who have outstanding performance by appropriately raising their wages, thereby developing a situation where the amount of actual income exceeds that of labor. This development, which brings about positive effects, is inevitable under the conditions of commodity economy. We should allow some people to get rich first in order to attain common prosperity.

II. Characteristics of Distribution According to Labor Under the Conditions of Socialist Commodity Economy

The socialist economy is a planned commodity economy. The existence and development of a commodity economy does not change the nature of socialist economy under public ownership. Rather, they will promote its development. Similarly, they neither negate the principle of distribution according to labor, which bases on the public ownership. The existence of commodity economy, however, exerts great influences on the conditions, forms and scope for and the contents of the implementation of distribution according to labor.

First, distribution according to labor must be realized by way of commodities and money. According to Marx, neither commodity nor money exists under socialism. A producer must, therefore, obtain a certificate from society certifying the amount of labor he has contributed before receiving his corresponding means of consumption. However, we neither abolished nor have been able to negate monetary circulation on the very date of establishment of our socialist system. The specific form of individual income received by laborers is only money

wages. The consumption needs of mankind are many and varied, as are those of the production of consumer goods. People spend their money on the goods they need by acting according to the amount of labor income they receive. This is indeed the best way of realizing the distribution according to labor under the socialist commodity economy.

Second, under the conditions of socialist commodity economy, the realization of the value of commodities is the prerequisite of distribution according to labor. Individual labor is not the direct social labor. It still has to go through cumbersome and widely recognized procedures. In other words, it must be subject to examination by the market through commodity exchange. The labor of enterprise workers is embodied by products, and is regarded as a result of collective labor subject to the market examination. Therefore, only when products resulting from the collective labor of an enterprise are accepted by the market, that is, the products are sold and their values are realized, can there be the conditions to distribute awards to the workers for labor contribution. Generally speaking, the more revenue an enterprise receives from the sales of products, the more awards its workers will get. Otherwise, the products will be unmarketable. If the result of labor is not recognized by society, the economic results of the enterprise in question will become poor, or even suffer losses and become bankrupt, and the amount of income received by its workers will drop. Thus, we can see that under the conditions of commodity economy, the amount of income received by workers depends on the distribution according to labor, but the distributable reward of the labor of a unit is closely related to realizing on the commodity market the values of products made by such labor.

Third, under the conditions of socialist commodity economy, enterprises are both independent commodity producers and operators. Enterprises are therefore the key in the realization of distribution according to labor. Previously, we only regarded enterprises as production units. In our implementation of distribution according to labor under the economic conditions of ownership by the whole people, we fixed a nationwide standard rate for wages, bonuses and allowances given to workers. The practice negated the differences among enterprises in terms of commodity production and business operation. In addition, an enterprise was unable to base on the actual production needs, and the amount of labor contributed by its workers, to make any flexible income arrangement for them. Through our experience in reforms after 1978, people got a full understanding about the role of enterprises as being the commodity producers. They also realized that an enterprise must have its independent decisionmaking power to determine its distribution to workers according to labor. Awards given by an enterprise to its workers are distributed according to the amount of labor (by taking into consideration the intensity, complication and skillfulness of labor, and so on). However, laborers who share the same labor capacity and technical level and who have spent the same

amount of labor on the same job may receive different wages because of the difference of economic results among enterprises.

Fourth, the distribution according to labor under the conditions of socialist commodity economy includes rewards for business operation. The so-called "business operation" here mainly refers to a special kind of labor contributed by the operators. It is a kind of complicated mental labor. Under the conditions of commodity economy, such kind of labor is directly related to the market competition, sales of products and price fluctuation of the commodity economy. Questions such as what to produce, what is the output volume and how to produce determine the existence and development of an enterprise. Labor involving business operations requires a high level of and a wealth of knowledge as well as business management experience. In a complicated and highly competitive market, a business operator must be good at making decisions on major issues such as business orientation, production development, technological equipment needed by his enterprise and so on by using his understanding of the available information and market situation. Moreover, he will chiefly be held accountable for the consequences. A complicated labor like this should entitle a corresponding labor reward. This is a significant content of the distribution according to labor under the conditions of socialist commodity economy. Therefore, in terms of economics, it is of course reasonable that the income of a factory director or manager is higher than that of an ordinary worker. Previously, we ignored the importance of labor concerning business operation, and made little difference between the income of an operator and that of an ordinary worker. This was a practice of equalitarianism that we must correct. As our enterprise operators who presently carry out the contracted responsibility system in business operation still have to take some risks, the society must compensate them in terms of economics. Such compensation is, however, different from the labor rewards they receive.

III. Reform the Distribution System, Overcome Practices of Equalitarianism

The existence and development of socialist commodity economy require us to seriously implement the principle of distribution according to labor. Indeed, the present contents and forms of realizing the distribution according to labor are comparatively many and varied. However, the present major obstacle that hinders our implementation of the principle of distribution according to labor is still practices of equalitarianism. These practices dampen the initiative of laborers and operators, adversely affect the vitality of enterprises, and are unfavorable to the development of socialist commodity economy.

China's reform of the economic structure always regards the opposition of acts of equalitarianism, as well as reform of the outdated distribution system, as its key

work. Recently, China has confirmed the role of enterprises of being the producers, and admitted that enterprises can have their relatively independent economic interests. Basing on their economic results, China appropriately widened the income differentiation. Moreover, it decentralized to enterprises the decisionmaking power on giving bonuses, and linked the amount of bonuses given to workers to the retained profits of enterprises after taxation. China also conducted experiments among some large and medium-sized enterprises by linking their total wages to their economic results. The wages of their workers therefore totally depended on the results of business operations. China now urges all localities to adopt this method. On the internal distribution of enterprises, we stressed widening the income differentiation among workers and proposed acts of protecting the interests of operators, increasing the reward of business operators, and so on. All these acts are the ones to do away with practices of equalitarianism among and within enterprises, so as to implement in a better way the principle of distribution according to labor.

Though China has made remarkable achievements in reforming the distribution, practices of equalitarianism are still the major obstacles in our promotion of reforms and our implementation of the principle of distribution according to labor. For instance, though the state allow the act of widening the income differentiation between workers and managers and factory directors who contribute much efforts to business operations, who take the risks and who assume principal responsibilities, it is difficult to put it into practice. In the process of linking workers' wages to the economic results of enterprises, many poorly run enterprises took some untenable actions. They arbitrarily apportioned costs, hiked prices in a disguised way and practiced fraud. The internal management of some enterprises was so confused that they distributed bonuses on an equal basis.

At present, how do we further oppose practices of equalitarianism and implement the principle of distribution according to labor? Macroscopically, we need to adopt a correct policy on distribution and the method of macroscopic readjustment. We should carry out coordinated reforms so as to create objective conditions for getting rid of practices of equalitarianism. For instance, we should gradually carry out a nationwide reform of the outdated wage system. In particular, we should put the wages and promotion systems onto the right track by radically replacing the method basing on the number of personnel and years. We should reform those irrational pricing systems so that prices will generally reflect corresponding values, the economic results of an enterprise can be accurately assessed, and there will be scientific grounds for linking workers' wages to the economic results of enterprises. We should reform the operation mechanism of enterprises and make them assume sole responsibility for their profits and losses. They will thus establish the practice of making enterprise budget, strengthen enterprises' self-disciplinary acts, correctly handle the relations between production accumulation

and consumption, get rid of those untenable acts, change their administrative and management pattern, and use the economic means (mainly the leverage of taxation) to rationally readjust various types of distribution in society, thereby encouraging acts of getting rich by working hard.

Microscopically, enterprises now have a certain degree of independence in terms of internal distribution, particularly on the distribution of bonuses from its retained profits. Now, the total amount of bonuses generally accounts for one-third of the workers' total wages, or as high as more than 50 percent in some cases. Under the circumstances where there is no great change in the basic wage system of enterprises, it becomes an important issue on how to rationally give bonuses to workers. It determines the destiny of our work of overcoming practices of equalitarianism and implementing the principle of distribution according to labor. Recently, many enterprises combined the basic wages of workers with their bonuses and have made remarkable results by introducing a system of floating wages. Generally speaking, a person may receive a sum of money equal to his basic wages provided that he has fulfilled his labor quota. Otherwise, he will receive less money. If he overfulfills the quota, he will get a bonus whose amount varies according to a fixed scale. Following the implementation of the policy on linking workers' total wages to the economic results of enterprises, the enterprises will from then on be more flexible and independent in terms of internal distribution. Experiments conducted among many enterprises have shown that the implementation of piece-rate wage system and wage system basing on quotas is a very effective way for carrying out the principle of distribution according to labor and for mobilizing the initiative of workers in production. We should further popularize these practices. The main task for enterprises which implement the contracted responsibility system is to promote the system down to individual workers, and to link their income to their duties.

From now on, we must continue to actively reform and explore the distribution work. Proceeding from reality, we must adopt those effective distribution patterns and methods. We must resolutely oppose practices of equalitarianism, seriously carry out the distribution according to labor, and encourage the advanced ones while urging others to catch up. Thus, we can fully mobilize the initiative of workers, improve the economic results of enterprises and further promote the development of China's socialist commodity economy.

Taking Medicine, Prescribing Medicine, and Making Medicine

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[Article by Jia Yi [3946 0044]]

[Text] People are usually both afraid of and cannot do without medicine. They are afraid of it because they only take it when they are sick and no one wants to be sick.

They cannot do without it because when they do get sick they have to take medicine. In short, if we are not sick, we cannot take medicine as though it is an everyday meal no matter how good it is. Everyone knows this.

However, there are exceptions. In one of his articles, Lu Xun discussed the relationship between the literary style of the Wei-Jin period on the one hand and drug and wine on the other. At that time, many healthy people took "powdered drugs" because they wanted to imitate the life-style of the celebrities. The present situation is quite similar to what happened then. There are indeed people who take medicine regardless of whether or not they are sick. Some doctors are more than happy to comply with the wishes of the patients when they write out prescriptions. The drug manufacturers, needless to say, are keen on turning out medicine in the form of "candies" and "tonic drinks" and marketing them in all sorts of fancy names.

In the olden days, the legendary emperor Shen Nong tasted all kinds of herbs in an effort to find out about their property and flavor. It is said that he sometimes got poisoned dozens of times in the course of a single day. Surely he had no idea drugs had any use other than saving people when their lives hang on a thread. With the development of society and of science, medicine is used to prevent as well as treat diseases and people's knowledge of medicine has undergone changes. This is something very natural. However, the idea of "living a long life without ever getting old" has always been doing mischief in the minds of the Chinese. In the past, emperors and commoners alike thought that since medicine can cure, taking it when they were not even sick would surely enable them to achieve immortality. Thus they all tried taking medicine. There is by no means a lack of records throughout history on how glossy gano-derma can cure all diseases and preserve youthful energy and how ginseng can nourish the essence of life and prevent diseases. There are even jokes about how people gobbled down ginseng and pilose antler as though they were taking their everyday meal. It is probably out of the same mentality that we see so many people taking all kinds of medicine in the hope of nourishing their health.

However, medicine is after all different from delicacies. It is definitely not a good idea to take too much medicine, and using tonics to nourish one's health is by no means a simple matter for the laymen. Medicine must be suited to the illness, which means prescriptions should vary from person to person. In Chinese herbal medicine, the number of flavors and the compatibility of medicine are factors to be reckoned with. This was the "dialectical method of treatment" summed up by our predecessors from their experience. In the final analysis, the most practical approach to avoiding illness and prolonging one's life span is to pay attention to hygiene, be careful in our daily life, and exercise. There have never been any precedents of people achieving immortality through taking tonic medicine. The fact that most emperors since antiquity lived a short life is a clear proof.

Another reason why people are taking medicine in such quantities is actually because of loopholes in the existing system of free medical care. In our country, most people do not have to pay anything for their medicine. Medical expenses are reimbursed and people do not have to pay out of their own pocket. If taking medicine can give them a long life, so much the better.

Of course, if doctors are strict about writing out prescriptions, the phenomena of taking medicine at random and of abusing and wasting medicine can be eliminated. However, our system is neither reasonable nor strict. Meeting the demands of the "patients" not only would not inflict any loss on the individual, but could even fetch additional income for the hospital, which means the doctors themselves stand to benefit. Thus, both the doctors and the "patients" are happy. Due to loopholes in the system, a handful of doctors who like to pull connections may abuse their power by writing out prescriptions for tonic medicine in exchange for favors from their "patients."

Thus, the "economic factor" also plays a part here. Economic results have to be stressed, but if it is taken as the primary objective and everything else has to give way to it, problems will ensue. For example, because the manufacturing of medicine is a money-making business, cases of faked drugs have been reported even in the famous "medicine city"—the hometown of Pei Tong [6729 1749], the king and father of medicine. Of course this was an isolated phenomenon. However, with the endless production of this or that kind of "essence" or "tonic" made from extracts of glossy ganoderma, ginseng, pilose antler and what not, each claiming to be capable of working wonders, it does seem that they are after your money. Of course, the government usually ends up footing the bills. The government pays for your tonics, and with the money saved, you can feed yourselves with good food. Is this not wonderful? With those taking medicine, prescribing medicine and making medicine all taking advantage of the state, I wonder whether this country of ours can bear the burden, or how long can we go on this way?

A Song of Praise for China's Contemporary Peasants—Reviewing the Reportage Collection 'The Flying Geese of Taihu'
400501561 Beijing HONGQI [RED FLAG] in Chinese
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[Article by Huang Shengping [7806 0524 1627]]

[Text] The villages of Wuxi are an advanced model area in carrying out economic structural reform. What is reflected in the reportage collection "The Flying Geese of Taihu" (edited by the Wuxi City Committee Propaganda Department and published by Shanghai People's Press) is precisely the practice of rural economic reform

which has spread like wildfire over the last few years in Wuxi, as well as the achievements realized in this reform by the indomitable peasants who have grown to maturity in this practice of reform.

Many of the works in this collection, when describing rural reform, write about both the agricultural responsibility system and the thriving village and township enterprises. These two aspects are the two main currents in the reform of China's villages. From the book we see that in the years of "taking grain as the key link and clearing everything completely" some of the cadres and the masses in the Wuxi villages had quietly begun to change the economic structure which comprised purely crop planting, and some secretly experimented with calculating payment on the basis of production contracts. In "Soar, Sanfang Lane" although Bian Xingcai, a farming expert, knew all about weather and soil and could do all sorts of farm work, each person only had 6 fen of land on which to plant grain. Thus, no matter how many of his skills he brought to bear, Sanfang Lane remained with dilapidated houses, infertile fields and poor people. In 1972, when the "Cultural Revolution" was well under way, ignoring political pressure, he started the first village-run factory. Like an ox which will not turn back, and without worrying about the difficulties created by people or paying any attention to their criticisms, he laid down a road to prosperity in an unyielding manner. This enabled Sanfang Lane to become one of the shining industrial star villages in Jiangsu Province. As soon as somebody mentioned breaking with the "Dazhai-style" workpoints system and introducing the contract responsibility system, in 1977 the villages of Wuxi resolutely implemented this. Liu Yonglun, the party branch secretary in "Upstream, There is a Surging Current," said: "Letting children and daughters-in-law eat from their parents and parents-in-law's big pot induces laziness. When workers of state-owned operations no longer eat from the big pot of the state, China's economy will develop more quickly." These were thoughts on the invigoration of China by a rural cadre of the lowest level of our republic 8 to 9 years ago. The reforms have given the peasants wings to fly. Following the development of reform undertaking in many aspects in the villages, there have been major changes in the economy of the Wuxi villages. From the book "The Flying Geese of Taihu" we can vividly see a vignette of the economic reforms in the Chinese countryside.

The rural reforms and the development of the commodity economy will indeed be of assistance in fostering in people a spirit of being spurred to create and to develop and of being brave in innovation. This is manifested in a model way in Xu Fumin, the leading character in "The Hope of the Earth." When the rural economic reforms had just begun, and the "leftist" specter which wandered the villages had not yet disappeared, Xu Fumin, as the head of the aquatic products farm in Helie on the outskirts, took the lead in reforming the old employment system and distribution system. This greatly motivated

the zeal for labor and enthusiasm for creation of the cadres and workers. He processed the egg surplus to the production targets into preserved eggs and sent them to the city in large batches. This broke through the old system existing in the city of "unified purchase, unified processing and unified sale." He adopted the strategic policy of "you handle yours and I will handle mine" in order to resist the bureaucratism of various departments. On the banks of Taihu he built the sumptuous "Peasant's Heaven," a sanatorium for peasants and a fishermen's building. This has been referred to by foreign guests as the "floating palace" of China's peasants. He put forward the unprecedented call for peasants to enter the city and set up shops. In the Naoshi district of Wuxi he established a roast duck shop and in Huaihai Road in Shanghai he started the Xikai Company. It was also he who first proposed that peasants, in engaging in business, should lay their sights on the international market. Thus, he flew across the Pacific Ocean and in Australia he established the "Taihu Hotel".... In "The Flying Geese of Taihu" there are a large number of such entrepreneurs and reformers. Here, saying that the main characters have done well in their operations is not as appropriate as saying that the age of reform has given wings to the tigers. In them, the readers can feel the pulse of the times and appreciate the bearing of the contemporary peasant in engaging in spirited reform.

Be Vigilant Against False Profits and Actual Losses

*HK270536 Beijing HONGQI [RED FLAG] in Chinese
No 3, 1 Feb 88 inside back cover*

[Article by Wang Shiding [3769 0013 1353]]

[Text] In some accounting statements, the enterprise makes profits, turns over part of its profits to the state finances, retains part of the profits in its hands, and distributes bonuses among workers. Everything seems to be normal. In fact, some costs and losses are not recorded in the accounts, and the profits cannot offset the losses. This is the phenomenon of false profits and actual losses. When the enterprise turns over its "profits" to the state authorities, this causes actual currency payment. From the angle of the state, this part of financial revenue is realized, and the state financial department does not know the falseness of this part of financial revenue. It is natural that the state financial department will use this money and thus create demand. However, there is no corresponding material guarantee for this amount of money. This will inevitably intensify the contradiction between supply and demand, and cause difficulties to the stable and coordinated development of the national economy. From the angle of the enterprise, if it uses the false profits as its real profits, it will just base its expenditure on nothing and anticipate its future income. This will sap the enterprise's financial foundation and give rise to serious consequences.

Why is there a phenomenon of false profits and actual losses in some enterprises? First, according to the existing accounting system in our country, the asset losses of an enterprise do not need to be recorded in the accounts of the year when the losses are incurred. The assets are reevaluated every 10 years, and each time tens of billions of yuan of asset losses are discovered, and are deducted from the state investment once and for all. This unavoidably causes inaccurate calculation of the profits and losses in a particular period. Second, changes in prices and exchange rates may also affect the accuracy of the cost accounts. If prices and exchange rates are stable, the calculation of product costs, income, and expenses can be more rational. If the value of the currency is not stable, then some false phenomena may occur in the calculation of the profits and losses of the enterprise because the currency yardstick is not so reliable. In the projects involving foreign investment and in import and export trade, violent fluctuations of the exchange rates may also cause false profits and actual losses. Third, the imbalance between production and marketing is another major reason for the occurrence of false profits and actual losses. According to the existing accounting system, the product costs in a particular period are evenly borne by the products produced in this period. Sometimes, the enterprise cannot sell all of its products, but it records the profits as if the stockpiled products have also been sold. This often brings about the phenomenon of false profits and actual losses. We should pay special attention to this problem.

This problem is caused by many factors, so to solve it, we should adopt measures in many aspects. We may consider the following measures for improving our accounting system. First, the calculation of enterprise profits and losses should be linked to the evaluation of the enterprise assets. That is, the enterprises should bear responsibility for the use and maintenance of their assets. If losses occur in the assets, the enterprise profits in the same fiscal period should be correspondingly reduced. Second, the method of calculating costs should be changed. At present, historical costs or original costs are taken as the foundation for assessing the value of the assets. When prices rise, the historical costs may be lower than the current costs. So our existing method may underestimate the costs, and thus exaggerate the profits of the current period. Therefore, it is necessary to learn from some useful research results in foreign countries and gradually establish a new theoretical and practical accounting system which is suited to the price changes in our country. We may also adopt the "changing costs accounting method" on a trial basis, and thus directly link profits and losses to the sales of products. However, it is better to try this method when the state financial condition is improved.

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