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PRESENT SITUATION AND TRENDS OF
CHINESE AGRICULTURAL DEVELOPMENT

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1. Chinese Agricultural Development in 1995

(1) Rapid Growth Obtained in Agricultural Output

In 1995, Chinese agriculture had a bumper harvest in contrast to recent years. Total agricultural value added reached RMB 1136.5 billion Yuan, approximately US \$ 136.8 billion. If calculated at comparable prices, it increased 4.5 % compared with the year before. The rapid agricultural growth improved the industrial structure of the national economy. The growth ratio of value added of two industries, industry and agriculture, was 4:1 in 1991, 5:1 in 1993 and 1994 respectively and came down to 3:1 in 1995 for the first time. It improved the imbalance in the relationship between industrial and agricultural development since the beginning of 1990s.

(2) Bumper Harvest obtained for the Main Agricultural Products

Cereal: Total production was over 410 million tons, which set a new record, and increased 5 % over the year before. The large marginal increase of cereal lessen the tension of supply and demand.

Cotton: It maintained a recovering increase with 4.5 million tons of total production in the year of 1995 which increased 160 thousand tons over the year before with growth rate as 3.7 %. It basically might meet the domestic market demand.

Oil-bearing crops: It reached 22.5 million tons in 1995 as a new record production which was the first time over 20 million tons, and increased 11 % over the year before.

Fruit crops: The total production in 1995 was estimated as 42 million tons and increased 20 % over year before.

Others: It was estimated that the sugar-bearing products could reach 78.48 million tons

with 6.8 % as increase rate over the year before, and the flue-cured tobacco could reach 2.1 million tons with 8.2 % as increase rate over the year before.

The animal husbandry and fisheries enjoyed a stable development. The whole year production of meats was 50 million tons with 11 % over the year before. Of which pork, beef and mutton production was 42 million tons with 13.7 % over the year before. Egg production was 15.72 million tons with 6.3 % over the year before. Milk production was 5.43 million tons with 2.6 % increase. Aquatic products were 25.38 million tons with a 18.4 % increase.

(3) The Main Reasons for Rapid Increases Obtained for 1995 Chinese Agriculture

- (i) Favorable price policy on agricultural products promoted agricultural development. In 1994, the national government raised the purchasing prices for main agricultural products, such as cereals and cotton, etc. by a big margin. The mixed average prices of four cereals (rice, wheat, maize and soybeans) were raised by 40 %. Based on 66.8% a increase in 1994, the cotton price was raised by 29.6 % in 1995. The purchasing prices for the main agricultural products, such as cereals and cotton, etc. which rose by a big margin, greatly promoted the development of agricultural production.
- (ii) Rapid increase in inputs. In 1995, the State increased the proportion of inputs of fixed assets, a fund within the national financial budget and credit fund for agriculture. From January to October, the State financial fund for supporting agriculture increased 20 % over the same period of the previous year. From January to November, the credit for agriculture from the national banking system was raised by over 20 %. Agricultural households are the main investment body in Chinese agriculture. Due to the big increase of prices on agricultural products in 1994, 60 % of the per capita increment of net rural farmers' income in the same year came from the changes of the prices. The raised prices stimulated the rural farmers' income expectation from the operation of agriculture, which induced the increase of inputs. In the first three quarters of 1995, farm households spent more than 45 % of inputs on farming compared with the same period of the previous year. The quantities purchased on fertilizer, pesticides and agricultural plastics were increased by 6 %, 31 % and 30 % respectively over the same period of the previous year.
- (iii) Favorable Weather Conditions. Chinese agriculture is a kind of traditional agriculture dependent on weather basically. The weather conditions were favorable in 1995. Large natural disasters did not happen in the main agricultural areas, in particular, in the cereal production zones, which laid a good foundation for the increased production.

- (iv) Real effects created by macro adjustments. Under the conditions of decreased cereal production and increased prices in 1994, aimed at ensuring the balance of supply and demand of main agricultural products, such as cereals, Chinese Government formulated an adjustment policy, i.e., "rice sack" governor responsibility system, in order to promote the local government, particularly the leaders in the economically developed areas to support agriculture according to their own reality, so that the unfavorable situation, such as outflow of agricultural resources and production factors had been preliminarily curbed. It was obvious that in some economically developed provinces continuous sliding of agricultural production in the past a few years and reduction of cereal production had been controlled. In these areas, increased inputs to agriculture and subsidy policy towards cereal production ensured the overall harvest of the main agricultural products.

2. Basic Trend of Chinese Agricultural Development in 1996

1996 is the first year of the ninth Five Year plan in China. It is essential to have a good opening on agriculture for the implementation of the Ninth Five Plan. The Chinese agricultural development faces a quite positive condition from the perspective of 1996. First of all, great importance has been attached by the Central and local governments to some of the problems which prevailed over for recent years in the process of agricultural development, i.e., one high (too high are the prices of agricultural production means), one low (too low is comparable agricultural efficiency), and one heavy (too heavy are the burdens on rural farmers). The Central Government is engaged in solving such problems as irregular market, too many levels and chaos in the sales channels of agricultural production means, in order to stabilize the prices of agricultural production means. Based on the increases in the recent past two years, the purchasing prices will be raised for cereals properly this year so that the agricultural produces could maintain reasonable comparative price relationship. The Central government has also taken some measures to reduce the burdens on rural farms. All these problems solved will create a favorable condition for the future development of agricultural production in China.

At the same time, the Central Government will also adopt an inclining policy favorable for agricultural development and intensify the support to agriculture from financial and credit aspects. Some technology adopted in agriculture, such as "Seed Engineering" will be extended. In addition, good winter sowing in the last year, not only in terms of increases of sowing areas, but also good growth of seedlings, has laid a sound foundation for a bumper harvest of summer cereals in 1996.

Generally, except for some unexpected natural factors, the agricultural development in 1996 faces an unprecedented favorable situation. Therefore, agricultural production evidently shows a smooth growing trend. Cereal and cotton production will maintain the high level as

in 1995. The main agricultural products such as oil-bearing crops, meats, aquatic products and fruits, will continuously increase.

3. Chinese Agricultural Development Prospects and their Effects on World Market of Agricultural Products

- (1) Neither unrealistically optimistic, nor passive pessimistic views need to be held towards the Chinese agricultural development prospects.

China is a big agricultural country with a large population. The prospects of agricultural development will not only directly relate with the development and stability of the country as a whole, but also relate the trend of the world market of agricultural products. Since 1990's in particular, tension has occurred in the relation between supply and demand for main agricultural products, e.g. cereals, which caused the prices to fluctuate from time to time. Therefore, attention has been paid by the domestic and international communities towards the prospects of Chinese agricultural development. Thus, there are two different views induced:

The first point of view holds that China has already solved the feeding problem for its people, accounting for 22% of the world population and using 7 % of the world cultivated land. In particular, since the last ten years more for the reform and open policy, agriculture has experienced rapid development. The cereal production continuously reached the three points of 350 million tons, 400 million tons and 450 million tons. Other main agricultural and sideline products could be basically self-supplied. Thus the view is shared that the Chinese agricultural problem has been already solved.

The second point of view holds that as the time passes, three trends of decreasing cultivated land, growing population and increasing demand in China can not be reversed. Thus there is a doubt whether China can solve the feeding problem in the next century or not. Even more, one view is shared that when a peak of population totaling 1.6 billion reached in the year of 2030 in China, a serious gap between supply and demand of Chinese agricultural products, in particular, cereal supply and demand will occur, thus will cause the world "crisis" in food. I hold that the above-mentioned two views are based on one aspect of the problems which does not meet the Chinese situation and objective reality for agricultural development.

- (2) Many Problems and Fine Prospects Faced by Chinese Agricultural Development

Let us take cereals as an example for analysis. At present, population in China is 1.2 billion. It is unreversible that it will reach 1.3 billion at the end of this century and 1.6

billion in 2030s. As the population is growing, livelihood is improving and industrialization is progressing, the demand for food will be gradually increasing in the whole society. Based on the change of demands induced by all these aspects, Chinese Government defines that at the end of this century the target of cereal production will reach 500 million tons, and the per capita possession of cereals will be 400 kg. For the time being, the production capability is 460 million tons annually. There is still a gap of 40 million tons at the end of this century and 180 million tons in the year 2030 with the population of 1.6 billion for the balance of supply and demands of cereals. In other words, an important target for Chinese agricultural development is that 40 million tons of cereals need to be increased within five years and 180 million tons need to be increased in the next 35 years. Only thus, the balance of supply and demands for cereals could be ensured. To meet this target, there are a lot problems: (i) the increasing shortage of the cultivated land resources due to the possession of land by economic development and urban construction. (ii) less scientific and technological application in cereal production. It is quite difficult to increase cereal production as it is low of scientific and technological application and economic efficiency in cereal production. (iii) it is insufficiency of basic agricultural inputs which causes backward production conditions and incapability in anti natural disasters. (iv) small-scale operation by households as production units can not meet the demands of reducing costs, improving efficiency and approaching the market. Therefore, it is a challenge faced by Chinese Government and the people to develop agricultural production and ensure the efficient supply of agricultural produces.

On the other hand, there are big potentiality and many favorable conditions to develop Chinese agriculture.

- (i) potential cultivated land resources. Firstly, One third of available cultivated land in China is with medium and low productivity (around 60 million hectares). The cereal yield per hectare of this kind of land is 2250 - 3000 kg lower than that on the land with high productivity. It may increase the yield by 1500 kg by improving the irrigation and drainage facilities and increasing the fertility on this land with medium and low productivity. Chinese Government is planning to improve 16.7 million hectares of land with medium and low productivity. It is estimated that it may increase 2.5 million tons of cereals.

Secondly, increasing multiple cropping. At present, the national agricultural average index of multiple cropping is 155 % while the highest is 246 % in Jiangxi Province. If the national index of multiple cropping could be raised 5 %, it is equal to increase 4.5 - 5.5 million hectares of sowing areas. Thus 1.8 - 2.0 million tons of cereal production could be increased. It is quite possible to raise the multiple index by 5 % based on available technology and weather conditions.

Thirdly, reclaiming reserved land resources. China has 1.47 million hectares of land which could be reclaimed out of the cultivable wasteland. At present, 200 thousand hectares of land is reclaimed annually. Based on this, 7 million hectares of land can be reclaimed till the year of 2030. Thus the cereal production can be raised by 2.5 million tons.

- (ii) potential non-cultivated land resources. China has 3.4 million hectares of cultivable wasteland, 130 million hectares of usable waste mountain and hills, 6.5 million hectares of cultivable sand land and 260 million hectares of grass land, and wide inland water surface, water surface in shallow sea and beaches. A large quantity of cereals and other agricultural products could be increased through development.
- (iii) potentiality in science and technology. At present, the scientific and technological contribution rate in agricultural growth takes around 30 %, but this rate is more than 60 % in some developed countries. China is planning to extend ten new species available and advanced production technology in the following years. Thus, 1.5 million tons of cereals could be increased annually.
- (iv) potentiality in physical inputs. It shows that growth of Chinese agriculture is more and more relying on physical inputs. As Chinese industrialization is entering its middle stage, the relationship between agriculture and industry is at the stage from agriculture providing industry with accumulation to self-supply of agriculture and industry. Therefore, compared with developed industrialized countries, the advantage of physical inputs for Chinese agricultural growth is far from development. As the national economy is developing and industrialization is expedited, the advanced developed industry will surely promote agriculture. Thus a new chance will appear in the growth of Chinese agriculture.

Through the above analyses, we could have the following conclusion: the potentiality is objectively available in agricultural development in China. China could solve the problem of feeding the people, it only depends on the excavating the potentiality and putting the potential productivity into real productivity.

(3) Demands for Agricultural Products in China Will Not Threaten the World Market

- (i) The pressure of the demand for agricultural produces in China on the world market is gradually lessened since the reform. Due to the decrease of cereal production in China in 1994 in addition to the continuous net exports of agricultural produces in the previous two years which reduced cereal reserve, structural gap was induced in efficient supply, as well as unbalanced supply and demand. In addition, due to the affects of the macro economic environment and

the push of the cost, during that period, the price of cereals was increased with a big margin. In order to reverse that passive situation, the Chinese Government took realistic measures to urge the domestic production on one hand, and to increase imports of cereals on the other hand. The purchase of 20 million tons of cereals within one year greatly affected the world market of agricultural products.

In fact, it was the result worked out by many factors in these specific years. If we observe the ten years more of reform divided into three periods, we will find that the scale of net imports of cereals in China is gradually decreasing, its proportion to domestic production is gradually reduced. During the period from 1978 to 1984, in order to make up the accumulated gap due to the poor harvests in a long period, China imported large quantity of cereals although domestic production was increasing sharply. Imports of cereals in these six years were 89.44 million tons while exports were only 13.19 million tons. Net imports were 76.25 million tons, which accounted for 3.1 % of the domestic production in the same period. During the period from 1985 to 1990, imports were 75.64 million tons, exports 45.67 million tons, and net imports 29.97 million tons, which accounted for 1.2 % of domestic production in the same period. During the period from 1991 to 1994, imports were 41.87 million tons, exports 52.48 million tons, and net exports 10.67 million tons. Even if taking the large quantity of imports in 1995 into consideration, the net import of cereals in the five years from 1991 to 1995 were 9.15 million tons, which accounted for 0.4 % of domestic production in the same period. The above data show that the pressure of cereal demand in China on world markets since the reform not only has not increased, but also has gradually been declining.

- (ii) The Chinese economy is linking with the track of the world economy and the relationship between the Chinese market of agricultural products and world markets is also more and more close. As the restriction on agricultural resources is more and more intensified and demand for agricultural products is increased, the supply of agricultural products in China will more and more rely on the world market. But the supply and demand of agricultural products will not threaten the world market of agricultural products. According to the forecast based on the food supply and demand balance model, the total demand for cereals in China will be 510 million tons at the end of this century, and total production will be 496 million tons. The gap between supply and demand is 14 million tons, which accounts for 2.7 % of the total demand and focuses on maize which will be in sharp demand as fodder. Even if the remaining requested for maintaining the supply and demand balance is taken into consideration, annual net imports during the "Ninth Five Year Plan" period generally will not surpass the scale in 1995. Therefore, the demand for agricultural products in China will not threaten the world market in a recent period.

According to the per capita target of 400 kg of cereals per year at the beginning of next century, the demand for cereals is 640 million tons in terms of a population of 1.6 billion, which is 180 million tons less than the present production capability. According to the targets set by the Chinese Government towards the industrial policy and economic development and based on comprehensive analysis on restriction and potentiality of agricultural resources, it is quite possible to maintain 1 % of growth rate of cereal production annually in the next 35 years. The average growth rate for cereal production annually was 4 % in 40 years from 1949 to 1990. Since the reform, the growth rate has been more than 1 % annually with annual increases of production of 9.5 million tons in the whole country on average. The present achievements on cereal production in China show that China is capable of meeting domestic food demand based on self-reliance. Dependence on world markets will still be low and the world markets will not be threatened by the demand for food from China.