China-Africa Cooperation on Agricultural Development and Economy

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China-Africa Agricultural Cooperation can date back to early 1960s.

At the early stage, the Chinese Government helped Africa build, through grant aid and interest-free loans, a batch of farms, reclamation areas, agricultural technology experimental stations and stations for popularizing agricultural techniques; provided agricultural machinery and tools, equipment for irrigation, drainage and agricultural product processing, as well as quality seeds, chemical fertilizers and pesticides; deployed experts and technicians on agriculture, water conservancy, animal husbandry and aquaculture to provide guidance on land reclamation, build irrigation projects, and teach farmers agricultural production technologies, such as the extension of cultivation technology of rice, cotton, sugarcane, vegetable, tobacco, tea and silkworm, quality seed-breeding technology, livestock farming technology, aqua-cultural technology, marine fishery technology and primary agricultural produce processing technology in African countries.

In mid- and late 1980s, China embarked on the trial implementation of its project contract responsibility system, and started to consolidate part of the established agricultural projects through technical cooperation, management cooperation, entrusted
management and leasing management. China attached great importance to strengthening the economic and technical responsibility management, realizing the unification of rights and liabilities, and focusing on the economic benefit of projects. By early 1990s, China had helped nearly 30 African countries, including Guinea, Mali, Congo (Brazzaville), Congo (D.R.), Rwanda, Burundi, Somalia, Uganda, Sierra Leone, Niger, Togo, Benin, Mauritania, Tanzania, etc., build more than 100 agricultural projects. All these efforts contributed to the agricultural development in Africa, increased the yield of grain and economic crops, and provided raw materials for the development of light industry. Meanwhile, in line with the actual needs of African countries, China assisted with the construction of corresponding process industries, such as rice mills, sugar houses, cigarette factories, tea processing plants, etc., which promoted the development of home industries in Africa and reduced the import of the relevant products. In addition, China also brought to Africa a variety of technologies in relation to freshwater fish culture, bamboo and rattan weaving, utilization of methane, etc. to spur the development of sideline production and handicraft industry.

So far, China-Africa agricultural cooperation has lasted for half a century, and agriculture has always been a key area for bilateral cooperation. Among the agricultural cooperation projects conducted in the first 30 years, most of them were successful at the early stage, while some of the projects, during their continuous development and operation, were hardly sustainable after years due to numerous difficulties and a lack of momentum.
Staring with the introduction to several project cases, this paper will briefly review and analyze the cooperation process and relevant experience, enabling the conference participants to understand the basic policy and practice that China has traditionally adopted in its agricultural cooperation with Africa, so that further discussion may be conducted on this basis. It is of great significance for all to further learn about the policies and specific measures of China-Africa agricultural cooperation.

I. China-Africa Farm-building Cooperation Project Cases

(I) Mubarali Farm of Tanzania
Located in the lower basin of the Mubarali River in southern Tanzania, the Mubarali Farm is established for diversified operation in agriculture, animal husbandry and sideline industry, and also one of the relatively large projects built with China’s agricultural aid to Africa. Started in 1972, the farm construction was not completed until 1977. During the 14 years from its initial operation for technological cooperation to the year of 1985, the farm had achieved satisfactory results in its construction and various production activities.

The farm reclaimed 3,530 hectares of land, half of which was newly reclaimed and half of which was renovated. It also built the supportive irrigation, drainage and flood control projects such as barrages, a hydropower station with an installed capacity of 320KW, an agricultural machinery repair workshop, and a rice mill which can process 10,000 tons of rice annually. There were also a hennery, a piggery, a cattle farm as well as houses for civil and
production use. Highly mechanized, the farm employed 393 regular workers and 73 contract workers in 1985 at its heyday. It covers 3,380 hectares of arable land, out of which 3,240 hectares are paddy fields, with an average annual yield of 7,230kg. Over the eight years since the farm had been used for technical cooperation in 1977, its annual output of rice accounted for about one fourth of the market demand in Tanzania. The farm could also produce over 10,000 chickens, 1,000 pigs, and nearly 300 cow and beef cattle annually. The net profit gained over less than six years since the farm had been into operation could recoup the total investment.

An important reason accounting for the remarkable achievements made by the Mubarali Farm is its proper location and rational design. The land is flat, long stretching, and fertile, which is suitable for flow irrigation. The climate is favorable for the growing of rice. The hydropower station is capable of supplying electricity for civil and production use of the entire farm, which not only improved the life of the farm employees, but also reduced the production cost. A solid foundation was thereby laid for the production activities and operation of the farm. However, due to the economic hardship and shortage of foreign exchange on the Tanzanian side, many issues such as the upgrading of machinery equipment, chemical fertilizers, pesticides, and spare parts and components could not be addressed properly on a timely basis, which had a direct impact on the production and operation of the farm.

(II) 奇奔巴 Farm of Uganda
Initiated in February 1973, the (奇奔巴) Farm project was
completed in February 1976. Experts from China helped with its operation and management for 18 years. The farm covers an agriculturally arable land of 573 hectares, with rice cropping as its main industry while being concurrently engaged in other sideline production activities. The farm also established a rice mill with a daily output of 24 tons, a brick factory with an annual production capacity of 1.2 million pieces, a piggery, and a hennery. By the end of 1981, the total yield of rice on the farm had reached 25,000 tons, in addition to 14,000 tons of rice being processed as well as over 1,000 pigs and 22,000 chickens being raised. From 1980, the farm began to raise Beijing ducks experimentally; it produced 66,000 jin (33,000kg) of vegetable and 9.71 million pieces of red bricks. The aggregate gross profit was 1.9 times of the overall estimated cost of the farm.

The main reasons for the success of the farm include: Uganda spent a great deal of its foreign exchange importing rice. Therefore, the government attached great importance to the construction of the rice farm. The rice price at that time was three to four times of the price of dry rice crops in general, and the production cost was low, which created favorable conditions for the operation and management of the farm. The location was also good. The soil, landform, water source, geological location, traffic conditions, and power supply were all suitable for the production and sale of rice. The farm management was largely composed of Chinese experts until 1982 when the farm was turned over to Uganda.

Some major reasons accounting for the fall of 奇奔巴 Farm in 1991 include: There was a long-term shortage of capital. The farm
was only able to maintain its production, and incapable of repairing its water conservancy facilities, clearing the farmland, upgrading the equipment or purchasing parts and components. Ravaged by years of warfare, the economy of Uganda had been severely affected, with the market being depressed and price roaring. The price of pesticides and chemical fertilizers increased substantially. Wild rice and weeds brought about disastrous damages to the farm. The long term disrepair of water channels led to inefficient irrigation and drainage; the roughness of farmland made the irrigation and drainage unbalanced. The growth and reproduction of wild rice and weeds endangered the entire farm, which led to a sharp decline of the rice yield.

(III) Sugar Conglomerate in Mali
In order to help Mali produce edible sugar, China began to send experts to Mali in 1962 for the experimental cultivation of sugarcane. After this success, China helped build two sugarcane farms in Mali in 1970 and 1977, respectively, which cover a total area of 4,755 hectares of farmland. In the meantime, two other sugar factories were also built with the Chinese aid, which ushered in a new era for Mali that marked the beginning of domestic production of sugar. In 1984, the Malian Government decided to merge the two sugar factories and two sugarcane farms to form the Mali Sugar Conglomerate. At present, the conglomerate is under normal operation and management by means of cooperation and joint venture.

(IV) 阿尼耶 Sugar Conglomerate in Togo
The 阿尼耶 Sugar Conglomerate project in Togo included a
reservoir with a storage capacity of 12 million m$^3$, a 19km long water channel, a sugar plantation covering a total area of 1,200 hectares of farmland, as well as a sugar factory which is able to extract 500 tons of sugarcane and produce 6,000 liters of alcohol per day. Started in 1979, the project was completed, put into operation in January 1985, and turned over to the Togolese Government in January 1987.

After being put into operation, the sugar conglomerate immediately began to lose money. It was at a time when the Togolese Government pursued the policy of privatization. Prior to the turning over of the project, various parties had requested the relevant Chinese enterprises to lease the company for a term of ten years. The lease was renewed in 1996. Since the lease of the conglomerate, both China and Togo have performed their respective duties, and the enterprise has witnessed healthy development, turning in 260 million Western African Francs (approximately US$474,000) to the government annually, and created employment opportunities for 600 to 1,600 people. The little village of (阿尼耶) where the conglomerate is located has gradually developed into a township with a population reaching tens of thousands. The production capacity has also been improved: 600 tons of sugarcane is extracted daily and nearly 8,000 tons of cane sugar and 1,200 m$^3$ of alcohol are produced annually.
(V) Sugar Conglomerate in Sierra Leone
The sugarcane farm covers a total area of 1,000 hectares, with an annual output of 60,000 tons of sugarcane, and the supportive water conservancy projects have also been built on the farm; the sugar factory with the total floor space of 15,668.75 m$^2$, has 591 pieces of equipment in total. The factory can extract 400 tons of sugarcanes and produce 6,000 liters of alcohol daily, and produce 6,500 tons of white granulated sugar annually. Started in March 1979, the project was officially put into operation in January 1981 and turned over to Sierra Leone on February 25, 1982. Under the autonomous operation by Sierra Leone, the enterprise has employed Chinese personnel for cooperative management. The factory is in normal operation at present. The amount of powered sugar produced by the project accounts for about 40% of the total sugar demand in Sierra Leone, which has changed the country’s complete independence on the import of sugar. The enterprise has won great acclaim from the government and people of Sierra Leone for the profit it has made.
II. China-Africa Irrigation and Water Conservancy Cooperation Project Cases

The Chinese infrastructure construction and water conservancy projects developed in Africa have actively promoted the agricultural development and livelihoods in African countries.

1. Mashta al Anad – Ben Jarw Canal in Tunisia, which is the longest canal aid project to Africa, was founded in May, 1984 with a length of 120 km. This project has executed “water transfer from west to east” plan of Tunisian government, which not only provided the sufficient irrigation water of 19,000 ha. for farmland and laid a solid foundation for economical development in Ben Jarw area, but also fulfilled the need for water use in the capital Tunisia.
2. Fenole Irrigation Project in Somalia, the scale of which is as follows: It is a key water control project with main irrigation canal (52km-long), one generator (4600kw), three converting station, high-voltage circuits (102km) and diesel generating power stations (1620kw). The project was launched in 1979. During the 4-year construction period, the Chinese technicians were sent out more than 400 times as well as approximately 3 million tons of goods and materials.

3. Comorin Water Supply Project. Comoros is a volcanic island country in South Indian Ocean, where most areas are lack of rain and water resources. The Project is the first aid project of the Chinese Government, which was launched in April, 1981 and completed by the end of September, 1982. 56km new water supply channels, subsidiary buildings and equipment were built in 26 villages of Niumakele region and Domoni city in only one year and a half. Gravity feed model is adopted for the whole project. The completion of the project solved the problems of water for domestic
purposes for hundreds of thousands of residents in the whole Niumakele region.

4. Poylao Dam in Cape Verde. Poylao Dam was located near Poylao hydrological station in Cape Verde - San Diego (丝咯河) River, approximately 30km away from the capital Praia. Its main function is to develop agricultural irrigation and to improve the regional ecological environment. The total capacity of the Dam is 1.7 million cubic meters, sink reservoir, 1.2 million cubic meters, and annual water supply, 671,000 cubic meters. The Dam crest is 153 meters tall, and the dam crest of overflow dike is 26 meters tall. The project started in December, 2004, completed in May, 2006. It is the first dam of such a scale in the history of Cape Verde, which is beneficial to improve the economical development and livelihood.
III. China-Africa Reclamation Area Cooperation Project Cases

The reclamation projects developed in Africa made a good impression and endurable influence on several west and middle African countries, such as Ghana, Niger, Rwanda, etc. The paddy yielded from the agricultural projects in Togo, Benin and Gambia occupies a quarter of the total number of imported rice in these three countries in 1970s.

1. Afife Reclamation Area, Ghana. China helped the Area to cultivate its land of approximately one thousand ha. and meanwhile built a small reservoir with total capacity of 1223 cubic meters. In the Area, the land is joined together and flat with the idyllic water irrigation systems and field construction, these conditions are suitable for mechanized farming. Ghana allocated the land to 2000 local peasant household by 1 acre per household. Only few Ghanaian officials and professional technicians conducted coordination and management, as well as provided guidance to the
peasant household, who shall pay back the fee for tractors, water, seeds and small amount of the management fee to governments through paddy after harvest, leaving most products dealt all by themselves. Thus, the enthusiasm of farmers is high; they all compete for the land and cherish the land once assigned. The Chinese experts all withdrew after the construction of the Area completed in 1984. Later in 1987 and 1989, our researchers visited the Area on the way, observing that seedlings were all grown well, and the cultivated area were much expanded than the originals, the technologies transferred and small farm implements promoted 10 years ago by the Chinese experts were still used.

2. Diadire Lower Reclamation Area, Niger. The land was assigned to farmers to plant after its construction completed in 1984, and the agricultural production and farmer’s livelihood were greatly improved. A village named (多基) Duoki in the Area has more than 600 people of 84 households. At that time, the cash income was 20.48 million FCFA (approximately 120,000 RMB), and average income per household was 243,800 FCFA (approximately 1440 RMB). Every household changed the shabby house to brick house, and everyone praised “the Chinese people are very nice.”

3. Lubindi & Rwamagana Reclamation Areas, Rwanda. China helped these two areas to cultivate 300 ha. respectively, built small reservoirs, priming main channels, roads, drying yards and rice processing plants and provided hand tools and technical guidance services. Then the field divided to households are cultivated, planted and harvested by farmers. Because the services during the periods of pre-production, producing and after-production are well
fit, the two areas have been flourished in a long term after transfer.

IV. Some Personal Experience on African Agricultural Production Projects

Sub-Saharan Africa, especially in the tropical area, the agriculture basically is self-sustained or semi-subsistence agriculture for a long time. There is more cultivated land per capita there. Many regions still carry out extensive agricultural mechanisms such as planting at migration destinations, planting various crops in rotation, leaving the land uncultivated, etc. and ploughing and periodical rotation are far away from popularization. The basic tool is a hoe, with an axe and a hacking knife, and the agricultural assignments are completed by man’s power. The products obtained can only meet the requirements of household living at lower level but can not produce surplus products in a large quantity to enter into the market. Land tenure of villages and communities, traditional culture and the colonial history in a long time made the development of African private ownership rather slow, and helped the tradition of getting an equal share regardless of the work done maintained for a long time. Most peasant families do not have the conditions to save or deposit, they depend on the fruit on the trees, cassava that grows in the land and even ants. When the drought comes, they bow to the will of God.

Through the production level in North Africa and East Africa is higher, for they have implemented ploughing and fallow rotation agricultural mechanisms, but the range of modern technologies application in rural areas is limited. The artisan industry and
manufacture industry are underdeveloped, and the raw materials for production, mechanical equipment and spare and accessory parts for the modern agriculture basically or mostly need to be imported.

From my personal perspective, China once developed a series of cooperation programs on agricultural production in Africa, gaining lots of successful experience as well as painful lessons. There are many aspects that shall influence the programs, but there are three measurement criteria are fundamental: First, for the program itself, better operation conditions, management and policy supporting functions are required; secondly, for the governments on both side, there shall be basically or no burdens at all; thirdly, after the withdrawal of the Chinese experts, the programs shall still exist and have sustainable development, or long-term cooperation shall be sought by all means. The above three criteria are interdependent and indispensable.

The productive agricultural projects with vitality should mainly target at farmers, create conditions for them, help them on self-plough, self-cultivation, self-management and self-operation and help them to solve the service problems emerged before production, during production and after production. The farmers basically or totally do not depend on the government or Chinese experts. For the projects lack of vitality, among which, most are the state-owned projects. They all suffered from the following one or several problems: low economic efficiency, the income may well fall short of the needs; Supply shortage of raw material for production due to the lack of funds; the mechanical equipment that can not function
well and lack of spare and accessory components; water conservancy facilities and field working projects in disrepair after many years; intensified cooperation relations; frequent natural disasters due to mistakes in site selection (drought, insects, bird calamity, etc.); social instability and chaos caused by war, etc.

In principle, bringing benefits to farmers is the starting point and ending point of the projects, the focuses of agricultural productive projects should be laid on helping farmers to develop self-reliance in production. The content, forms and guidance of agricultural projects needs to be in line with the local actual situations, taking actions that suit local circumstances. We shall target at our deficiencies and weakness with the aim of improving the rural productive level. We need to help farmers to create necessary production conditions which they are not able to have to make them develop production independently, for instance, constructing middle and small sized main projects, solving the service problems before production, during the process of production, after production, etc and constructing other similar projects in reclamation areas.

Under the precondition of capital guarantee, establishing demonstrative centers of agricultural technological experiments to promote the development of production in reclamation areas. Resolutions shall be made for long-term engagement once a decision has been made. Long-term China-Africa agricultural cooperation shall be conducted. From the beginning of projects, the direction of development shall be clarified, the Chinese government aid capital can only help with the launch of projects and their initial management, and the management of enterprises shall be
transferred to market oriented management after 3 years or a period of time and multiple forms can be selected according to particular cases.

Dispatch experts to provide agricultural management knowledge and teachings of special technology, such as the plantation of cash crops, hand-knitting, the utilization of sewage gas, solar energy, etc. Continuously provide and strengthen all kinds of agricultural management and technology trainings. Strengthen the promotion of the plantation technologies of cash crops and advance the transition of farmers toward commodity production. Small farms with diversified businesses are better to be established on the outskirts of cities, and they are mainly privately operated or form financial partnerships.

The projects regarding pure technology promotion station can not stand for a long period and are difficult to depend on their own economy due to the small size and large expenditure; and in these countries, for scientific research programs are expensive with slow effects, it is difficult for the countries to endure. If it is simply plant crops experimentally, the burdens are usually less, but the trails need to be conducted under some conditions and have certain targets. The technical guidance and production technologies teaching can be promoted and utilized only by fitting for the local production conditions and levels, adopting the technologies that spend less money, quick effects and easy to be accepted by the public. The production increase measures of Chinese intensive cultivation can not be successful in reclamation areas in African countries. Due to the influence of traditional customs, the promotion
shall encounter many difficulties. The experiment which brings success in trail fields may not be promoted and applied in land for growing field crops. It is unsustainable to depend on the production increase measures such as chemical fertilizers, pesticides, etc and farmers can not afford to learn.

For example, the cultivation of Oryza rufipogon tested and promoted in Mali in the early 1980s by Chinese experts achieved success in the experimental plots but failed in the land for growing field crops. Measures like wet-land sowing, grass drowning by deep water could not be promoted. The soil conditions and management levels in the land for growing field crops differ from that of the experimental plots, the results of promotion is relatively worse. While in the agricultural technology cooperation projects between China and Mauritius, change from planting mainly paddy plus local vegetables and oranges to focus on lichee and introduce new kinds of vegetables – garlic, cauliflower, edible mushrooms, etc to enrich the food requirements of the local market. Due to the limited land resources, the experiment of planting soybeans at the intervals of sugarcane was conducted. Every year, the new species which can satisfy the local requirements are released by various means and make the projects popular among the local governments and the public.

V. Main Approaches for China-Africa Agricultural Cooperation in Recent Years

In recent years, China has attached emphasis upon such aid projects as land development, agricultural plantation, aquaculture
technique, food security, agricultural machinery, agricultural byproducts processing etc., enhanced the cooperation on agricultural technologies, actively carried out agricultural trainings for practical technologies, and established pilot programs for agricultural technology tests in Africa. Agricultural technicians and senior agricultural experts have been sent to introduce agricultural production technologies and provide agricultural development consultation and training for agricultural personnel of assisted countries etc. The Chinese government so far has assisted more than 40 African countries and implemented over 200 agricultural cooperation projects. The main work conducted is as follows:

1. Strengthen the human resource development training. China has carried out a variety of agricultural human resource training activities with African countries for the past few years. Specifically, sessions of agricultural technology training and seminar for governmental officials are held in African countries every year. Governmental officials and technicians from more than 40 African countries have received trainings related to such fields as crop farming, livestock, fishery and agricultural management.

For instance, the three week long Advanced Seminar for Agricultural Officials of African countries was held at Agricultural University of Nanjing. The courses of the Seminar were mainly to facilitate the communication with officials of African countries on China’s rural reform, new ideas, policies, experiences, as well as agricultural management explored during the development, including land property, institutional reform, the role of bio-organic fertilizer played for sustainable development of agriculture,
development of urban agriculture, supply chain management of agricultural products, and transgene and bio-safety etc. Trainees were allowed to take site visits to research institutions, agricultural bases and township enterprises during sessions. The Seminar, combined with commonness shared by China and African, provided a reference for tackling problems as far as possible, and made technologies and knowledge exchanges for agriculture and rural development more sustainable, rather than tentative.

Another example is the training courses held by Yuan Longping Agricultural High-tech Co. Ltd. in Changsha, Hunan. The training materials were very rich in contents, including the textbooks of *Hybrid Rice Technology* and *Hybrid Rice and the World Food Security* in English presided over and written by Academician Yuan Longping in person, as well as over 10 textbooks in Chinese and English specifically compiled by other senior professors. Professors integrated pictures and videos to make tedious theory courses vivid, lively, and easier for trainees to understand and accept, which also enhanced the level and quality of education, and enriched the contents. The curriculum of training was arranged in accordance with the growth regularity of rice, including theory and practice, workshop on trainee reports, field visit and study, etc. Field practice teaching is the core of the training of hybrid rice technology. In order to acquire and understand the procedures of breeding and hybrid seeds production, China, in accordance with season of hybrid rice production, arranged trainees to conduct the entire practice in the specialized experiment field. The training was scheduled based upon the farming season. Facing the hot weather, the Chinese experts and trainees persisted in the completion of all
experimental sessions in the field. Each session was completed by trainees in person under the guidance of experts. Despite that Academician Yuan Longping was 76 years old, he frequently led trainees to farm fields for visit and study, and carefully tackled questions from trainees. In order to highlight the teaching focus of training and consolidate the effect of practice, a special arrangement was made for trainees to conduct cultivation comparison test with Chinese technology and technology from their own countries, which enabled trainees to clearly understand the advantage of China's advanced technology for hybrid rice cultivation.

Agricultural Cooperation Project of China for Egerton University in Kenya, the picture shows the field work of undergraduates in the agricultural training base.
Chinese technicians introduced the technology for biogas digester construction to African trainees from TCDC biogas technology training class

Ethiopian Agricultural Vocational Education Project – this project was initiated in December 2001. There were 46 Chinese teachers working in five training institute in Ethiopia and 32,000 students received trainings.
2. **Set up a number of agricultural cooperative pilot projects and send experts to provide technical guidance.** For instance, for the Guinean hybrid rice experiment research and development pilot project, since the beginning of January 2003, five pilot experiments in total were carried out in production seasons during two and half years. A set of new technologies suitable for local cultivation now has been developed, which leads to the increased rice production and improved rice quality of the preliminary goal. Four experiments of the project were conducted for the adaptation screening of new varieties. There were 35 new varieties introduced totally, from which a number of new varieties of dry-season, medium, and maturing hybrid rice were sifted out for direct promotion and application in Guinea. The varieties suitable for local
food habits with high production and sound synthetic characteristics were demonstrated for its high production to a larger scale on the basis of screening. Seed production experiments, demonstrations made in different sites and pilot of the new technology for standardized cultivation with high production, from which a great deal of scientific data were drawn, were conducted in advance in accordance with the progress of breeding and selection by sifting. This provided a scientific basis for rationalizing the distribution and improving the combination of comprehensive and locally adaptive technologies for hybrid rice cultivation with high production and laid a solid foundation for future promotion in a large scale.

*Tripartite Agricultural Cooperation Project for the Aid to Ethiopia*. Since 1994, China has actively participated in the “South-South Cooperation” activity organized by UNFAO. According to the “Tripartite Agreement” signed between the Chinese and Ethiopian
Governments and UNFAO in February 12, 1998, the Chinese Government sent 38 experts to two regions within Ethiopia for agricultural technology cooperation. The Chinese experts made on-the-spot surveys for water resources planning, three pilot zones identified; planning and design for the food security were also conducted, which provided valuable information for agricultural development in Ethiopia. Affirmation was received from the Ethiopian Government and UNFAO.

China agricultural cooperation project in Gabon, the picture shows the cassava processing equipment.
Egypt Project of Technological Cooperation on Mushroom Cultivation lasted for two years. Chinese experts introduced from China and cultivated 14 good mushroom species, such as straw mushroom, cap fungus, Agaricus Bisporus, etc. Over 380 professional technicians and mushroom growers in Egypt were provided trainings successively. Visits were received from more than 2,000 people, such as Syria and Sudan Agricultural Delegation. The group of experts also repeatedly visited regions in Egypt for production guidance and were praised and welcomed by local authorities concerned and the people.
Prawn Farm Project of the aid to Mozambique was implemented by China’s preferential loans. The prawn farm was 20km from the north of Beira city in Sofala province, with 48 prawn ponds and a refrigeration plant of 100-ton capacity in total, covering an area of 500 hectares. The project was initiated in October 2000 and put in production in January 2002. Products from this prawn farm have now entered into the markets of South Korea, South Africa and the EU. The problem of local employment was tackled for over 200 people, and there were achievements in social and economic benefits.

3. Some Chinese enterprise have made investments in Africa and accumulated certain experiences with successes achieved. Take the “African Project” implemented by Jiangsu Agribusiness Group Corporation for example. In order to develop agricultural resources, production were made in Zambia for food grains (wheat, corn), beans (soybean), milk, meat and plenty of vegetables and a set of mechanized, industrialized and standardized production
management modes took shape, which played an exemplary role for the Chinese companies making agricultural development in Africa. The Group Corporation has received marked economic and social benefits from the friendship farm, Xiyangyang farm and China Farm operated in Zambia. The Agriculture Department of Hubei province actively explores new approaches by drawing successful experiences from China's aid to Congo (Kinshasa) over 30 years, and utilizes resource and market advantages of Congo (Kinshasa) to facilitate the investment cooperation in Congo (Kinshasa) by Hubei Dadi International Co., Ltd. for Economic & Technical Cooperation, thereby enhancing the cooperation of China-Africa agricultural project.

In recent years, China and Africa have been gradually reinforcing the high-level exchanges between leaders and government departments. “China-Africa Agricultural Cooperation and Investment Seminar” has repeatedly convened, where discussion
is made on expanding new ideas and modes for China-Africa agricultural cooperation by exchanging experiences, information, and deepening the understanding of Africa. Currently, China-Africa agricultural project is led by the inter-governmental cooperation as ever and supported by the Chinese Government as the early primary means, while progressively increasing company-dominated and market-oriented post operation. Agricultural projects fully invested by privates are under initial consideration or at the early stage of implementation.

My personal view upon previous experiences is that with regard to the agricultural production projects, China needs to change the assistance as the main cooperation mode, and establish a cooperative and win-win mechanism for mutual benefits, enabling the promotion on the sustainable development of production projects. China-Africa agricultural cooperation shall be oriented by enterprises, particularly private enterprises. Cooperation influence can be expanded through increasing project economic benefits, based upon the market orientation and the focus on efficiency. In view of agricultural projects featuring a long investment period, slow effect, high risk, and subject to the influence by such factors as international market, local natural conditions, etc., and due to most of the existing Chinese agricultural enterprises characterized by small scale, weak strength and lack of international cooperation experiences, the Government shall intensify policy support, enhance information communication and research, create effective coordination system, encourage domestic and competent state-owned or private enterprises with high reputation conduct development independently in the form of individual proprietorship,
joint venture, cooperation, etc. by funds raised through various channels, ensuring the sustainability of cooperation projects. Provide guidance for Chinese enterprises to be agricultural-oriented, conduct a variety of business, expand product markets, and increase economic benefits. Support Chinese enterprises to implement such agricultural processing projects overseas as agro-product processing, poultry rearing and processing, aquatic product processing, etc. During the implementation process, attention shall be paid to the cultivation of some specific enterprises responsible for the implementation and operation of Africa projects. Jointly develop simple, practical, and cost-efficient agriculture technologies that can be widely promoted in Africa for application in accordance with the conditions and needs of African countries.

VI. Current Policies and Measures for China-Africa Agricultural Cooperation

Agricultural and food security is a prerequisite for the survival and development of human society. Sino-African relations have now entered into a new stage of rapid development. Practical cooperation between both parties is characterized by comprehensiveness, multi-levels, and wide ranges. The cooperation on agriculture is increasingly important in all-round cooperation between China and Africa. Africa boasts abundant land resources and favorable natural conditions. However, most countries lag behind in agricultural production with highlighted problem of food security. Hence, increasing efforts for Africa agricultural cooperation to revitalize agriculture has become the
current consensus reached and strategic choice made by all African countries. China shall continue to be based upon the aim of friendship, peace, cooperation, development to actively advance economic and trade cooperation with African countries and contribute to the agricultural development, food security and infrastructure construction in Africa on the ground of win-win and mutual benefits.

In the China-Africa Cooperation Forum Beijing Summit held in November 2006, President Hu Jintao, on behalf of the Chinese Government, made an announcement of eight measures to support the development of African countries, including the agricultural assistance provided for Africa to establish distinctive pilot center for agricultural technology, senior experts of agriculture sent to Africa, the assistance to rural schools in Africa, etc.

In order to implement the eight measures announced by the Chinese Government to support the development of African countries, and assist them in improving the capability of independent development of agriculture, aid constructions of the pilot center for agricultural technology have been completed by China in 14 African countries respectively as the first exemplary units to improve seeds, introduce technologies, and provide trainings for local personnel of agricultural production and management.

For example, China - Congo (Brazzaville) Agricultural Technology Pilot Center, which is located in the Gombe farms and agro-technical station, and about 17 kilometers from south of the
capital, Brazzaville. Gombe farms and agro-technical station were the locations of Chinese Government's aid project in the 70s and 80s. There were 60 hectares of land in both adjacent sites (8 hectares of land for housing, available arable land area of 52 hectares). Seven main functions of pilot center were R & D, improved seed breeding, technological training, pilot driving, technology promotion, industrialized management, China-Africa cooperation springboard and platform, etc.

Another example relates to the proposed project of China-Mali Pilot Center for Agricultural Technology. The key approach was to promote the demonstration of technology for hybrid rice cultivation by means of existing farmland water conservancy facilities and through agricultural management agencies in Mali. After three years, Mali gradually mastered the hybrid rice technology for high production, which promoted the in-depth cooperation between agricultural enterprises from China and Mali and ensured the sustainable development capacity of agricultural production technologies for Mali.

In order to ensure the sustainable development of Pilot Center for Agricultural technology, and promote China-Africa agricultural cooperation, it is hoped by the Chinese party that after the Center’s construction completed and its operation for a period, enterprises from both countries enlarge the construction of regions for agricultural cooperation, carry out market operation and scale production of single or a variety of agricultural products.

According to China's domestic advantages in agricultural areas, the
agricultural development in Africa, as well as project characteristics, the Chinese Government identified provinces (regions and municipalities), enterprises, and research institutes to undertake the implementation of projects for 14 countries. In addition to South Africa and Uganda as the aquaculture pilot center, all the other 12 countries are the pilot center of grain or cash crops for agricultural technology.

Project construction costs and aid activities conducted in the first three year after the completion of project, including improved seed breeding, production and processing demonstration, technological promotion, personnel training and agricultural machinery exhibition, etc., are funded by the Chinese Government. After three years of project operation, the pilot center for agricultural technology shall be expanded progressively from personnel training and technological promotion to company-dominated and market-oriented operation. That means the Chinese companies are in charge of implementation, and adopt flexible approaches to cooperate with local companies and institutions and increase investments in the construction of commercial farms for various industrialized businesses and localized production based upon the pilot center for agricultural technology. It is believed that this business mode takes into account tripartite interests between the Chinese Government, the African Government, and enterprises from China and Africa, and makes projects more vital and sustainable.

Premier of the State Council of China Wen Jiabao, on behalf of the Chinese Government, made an announcement of a series of
measures for agricultural aid at the Fourth Ministerial Conference of China-Africa Cooperation Forum in 2009. As for promoting the cooperation with African countries on agriculture, firstly, improve the agricultural production capacity of African countries. In the next three years, China shall send 50 agricultural technology groups to Africa for introducing and promoting agricultural technologies and providing assistance to African countries in the establishment of system for agricultural technology promotion; increase the support to Africa for human resources in agriculture, and within three years, send 250 agricultural experts and technicians every year on average to work in Africa, and provide training for 2,000 agricultural technicians in Africa. Secondly, actively make innovations in the mode of China-Africa agricultural cooperation. Bring into full play the role of agriculture pilot center as the example, and increase the number of aided agricultural pilot centers to 20 in the next 3 years. Continue to run properly the established and aided pilot centers for agricultural technology in Africa. And each pilot center shall successively carry out such a variety of work of tests, demonstrations and trainings as selection and breeding of crops varieties and cultivation farming. Continue to encourage and support strong and reputable companies to invest in agriculture, promote the utilization of agricultural technologies and management experiences of China, extend the agricultural industrial chain and increase the added value of agricultural products and improve the level of food security in Africa. Actively participate in multilateral cooperation, contribute 30 million U.S. dollars to UNFAO to establish a trust fund, and use the trust fund to support South-South cooperation of China with African countries under the framework of UNFAO “Special Program for Food
Security”.

Thank you

March 17, 2010