

Third-Party Evaluator's Opinion
Sanjiang Plain Agricultural Development Program

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Program's Relevance

In 2006, Heilongjiang Province, one of the most important areas for food production in China, produced 33.464 million tons of food, or 6.73% of China's total food production. However, from the mid-1990s, as the Chinese economy began growing rapidly, a vast area of farmland along the southeastern coast was converted to sites for housing and industrial use, resulting in a substantial reduction of crop acreage. Meanwhile, as the migration of people from central and western regions of the country to the coastal area advanced, the demand for food began increasing in the southeastern region, causing the balance in the supply and demand of food to collapse. As a result, the conventional understanding that "food is produced in the south and shipped to the north" has been turned around to "food is produced in the north and shipped to the south." Consequently, at the beginning of the 21st century, Heilongjiang Province and Sanjiang Plain, comprising China's principal area of food production located in the northeastern region, are becoming increasingly important for the country's food security strategy.

The purpose of this project is to ensure China's food security and help narrow the gap in income levels that now exists between regions. This will be achieved by financing the subprojects of the Heilongjiang Agricultural Reclamation Construction Plan within the framework of a two-step loan provided through the intermediary of the Export-Import Bank of China. In addition to the improvement of medium- and low- productivity rice fields, efforts are being made to create added value in food products in areas suffering from low productivity due to lack of irrigation facilities, drainage facilities and the like by placing special emphasis on flood prevention, irrigation, land improvement, and agricultural infrastructure. From the perspective of agricultural development in Sanjiang Plain and improvement of food production and land productivity, this project is highly relevant.

Since it makes allowance for the projected increase in food demand and the area it targets is important for food production, this project is consistent with China's national policy.

Effects and Impacts

The Sanjiang Plain Agricultural Development Program, which was launched in 1996 and completed in 2002, played a vital role in the development of agriculture in the northeastern part of China. From the perspective of improving medium- and low-productivity rice fields, by developing irrigation and other water usage facilities, especially the drainage aspect, through the use of equipment

and materials introduced by this project, the effective area for irrigation in Sanjiang Plain increased by 55.73%, from 535,400 ha in 1997 to 833, 800 ha in 2005. In the past, the soil in this region tended to absorb so much water that it was unsuitable for growing cereal such as soybeans and maize, but the aridification of farmlands under this project resulted in increased productivity. However, from 2001 to 2005, the city of Shanghai invested 733 million yuan in an agricultural irrigation project, but the effective area for irrigation increased only slightly, to around 260,000 ha. The irrigation project implemented under this project was considerably more efficient than the projects that the Chinese government implemented in other regions. It may be a good idea to apply the method of irrigation that has proved to be suitable in the Sanjiang Plain region in irrigating non-desert areas in other parts of China.

Thanks to the implementation of this project, food production in the Sanjiang Plain region has increased significantly. In 1990, before the project was launched, each hectare of land in the region yielded 1,868 kg/ha of food. But after the project implementation, the same hectare of land yielded 4,477 kg/ha and 5,389 kg/ha of food in 2000 and 2005, respectively, or an approximately 200% increase over the 15 year-period. By contrast, the average yield for Heilongjiang Province as a whole was only 3,574 kg/ha, or 1,815 kg/ha less than in the Sanjiang Plain region. In 2005, an average of 4,642 kg/ha of food was produced in China, or 747 kg less than in the Sanjiang Plain region. Thus, it can safely be said that food productivity in the Sanjiang Plain region is rather high. Cereal production in Heilongjiang Province, which accounted for 5.47% of China's total cereal production in 1995, gradually increased to 5.51% in 2000 and to 6.73% in 2006. In the reclamation zone of Sanjiang Plain, acreage under crop cultivation and crop yields account for about 19% and 33% of those in Heilongjiang Province as a whole, respectively. Thus, the Sanjiang Plain region is an important area for food production within Heilongjiang Province.

As for the impacts, improved agricultural productivity helped raise the living standard of farm households in the target area, and the gap in income levels between regions was narrowed. As a result of the improvement of medium- and low-productivity rice fields in the Sanjiang Plain region and its comprehensive agricultural development, during the 9th Five-Year Plan period, food production increased by 57.3% over the level recorded in the 8th Five-Year Plan period; thereby increasing the per capita income in the region by 92.5%. At present, in the agricultural reclamation zone of Sanjiang Plain, there are 35 million mu (15 mu = 1 ha) of farmland, a population of 1.586 million people, and a 744,000-person workforce, 350,000 of whom are engaged in agriculture. Thanks to development in agriculture and other industries in the 1990s, the per capita gross production in 2005 was 2,100 dollars (approx. 15,000 yuan), while per capita income was 6,179 yuan, or about 3,000 yuan more than the average farm household income in both Heilongjiang Province and China as a whole.

In the Sanjiang Plain region, four agricultural development projects designed to enhance food production were carried out from the 1950s to 2002. A glance at the effectiveness of these efforts reveals that the economic effects of the 4th Agricultural Development Project (1996–2002), which centered on installing irrigation facilities in paddy fields, were evaluated to be considerably better than those obtained by the previous three projects. Nevertheless, the Sanjiang Plain region is a swampy

plain, which is rarely found in China, and it is also a world-famous habitat for valuable wild animals including cranes. However, because large-scale agricultural development was carried out for more than 50 years without taking environmental preservation measures, huge damage has been inflicted on the environment, including reduction in the size of the marshland and functional regression, destruction of the survival environment for wild animals, lowering of bio-diversity, and drought damage. The important challenge for developing Sanjiang Plain is to build an environmentally sound society where people and the environment are in harmony. This is achieved by developing sustainable agriculture that stresses environmental preservation and adopting such environmental preservation measures as enhancement of the function of the marshland and cultivation of forestland; thereby improving the environment. Recently, the international community has come to attach importance to the issue of environmental preservation in Sanjiang Plain, and the development of Sanjiang Plain into a beautiful and fertile area of land is believed possible through large investments in environmental preservation and collaborative efforts with the international community. Toward this end, massive investments will be made by a combination of public organizations, including the Chinese government, Heilongjiang Province, the Sanjiang Plain region, the Asian Development Bank, and private organizations.

Source:

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3. People's Daily Online (<http://www.people.com.cn/>) or *Heilongjiang Daily Report*, November 30, 2000.
4. Jun Li, "Practice and Discussion of the Implementation of Meticulous Agriculture in the Agricultural Reclamation Zone in Heilongjiang Province," November 8, 2007.