

# Summary of the Evaluation Results

Date: November 20, 2009

Department in charge: Rural Development Department

<b>1. Outline of the Project</b>		
Country: Paraguay		Project Title: Technological Center on Agriculture in Paraguay (CETAPAR) Phase 2
Issue/Sector: Agricultural Development/ Rural Development		Cooperation Scheme: Technical Cooperation Project
Division in Charge: Field Crop Based Farming Area Division I, Field Crop Based Farming Area Group, Rural Development Department		Total Cost (as of the moment of this evaluation): 450 million yen
Period of Cooperation	(R/D): April 1, 2005 – March 31, 2010	Partner Country's Implementation Organization: Direction of Agricultural Extension/ Ministry of Agriculture and Livestock, the Central Nikkei Cooperative/ Nikkei cooperatives, National Institute of Agronomy, Regional Center of Agricultural Investigation
		Supporting Organization in Japan: None
<b>1-1. Background of the Project</b>		
<p>Technological Center on Agriculture in Paraguay (CETAPAR) is a research and experiment station managed directly by Japan International Cooperation Agency (JICA). It was integrated in Yguazu Colony in 1985, by reorganizing 3 demonstration farms (La Paz, Pirapo, and Yguazu) established after the 2<sup>nd</sup> World War and directly managed by JICA, in an effort to support farming technologies of Japanese descent (Nikkei) immigrants. Paraguay is a typical agricultural country which produces mainly soybeans and wheat in the eastern region. Nikkei farmers have been playing a leading role in the region, particularly by introducing the soybean production in the country as an export product. CETAPAR was aimed at Japanese immigrants and Nikkei farmers in its earlier stage, but since the late 1980's it has covered directly and indirectly Paraguayan farmers as well. It also has played an important role in the agricultural research and experiment in the country, complementing national research institutes of the Ministry of Agriculture and Livestock. Having past 50 years since the immigration in 1954, it is considered that the Japanese colonies reached to the stage of maturation through the generation change and the diversification of forms of agricultural management among them. As a result, it was recognized that certain objectives of the early stage in the support of settlement of Japanese immigrants was attained, and the Nikkei cooperatives would be able to manage the Center by themselves in the near future. In addition, the discussion among Japanese and Paraguayan related organizations in February 2001 was reached to a conclusion that it is adequate to transfer the Center to the Nikkei cooperatives to promote sustainable agriculture and revitalization of the region.</p> <p>Considering the result of this discussion, JICA agreed with Paraguayan Government on the implementation of the Project on "Technological Center on Agriculture in Paraguay (CETAPAR)" from 2001 to 2009 with an attempt to develop human resources and prepare organizational structure. The Phase 1 was implemented from 2001 to 2004, and the Phase 2 has been implemented from 2005 to 2009 with a goal of preparing the foundation to develop independently its activities of the CETAPAR after the transfer.</p>		
<b>1-2. Project Overview</b>		
(1) Overall Goal: Sustainable Agricultural Techniques are disseminated in the eastern region of Paraguay.		
(2) Project Purpose: CETAPAR is prepared as foundation of the core center for agricultural development in		

eastern region of Paraguay.

(3) Outputs:

1. Sustainable and appropriate techniques of upland crops cultivation will be established for eastern region of Paraguay.
2. The technical services on stable agricultural production are implemented.
3. The Center which can provide tests and analyses is registered as a certificated institution.
4. The management structure to implement new CETAPR after the transferring is prepared.

(4) Inputs (as of the moment of this evaluation)

**Japanese side:**

Long term Experts: a total of 4 experts in 2 fields (Director/chief advisor, and Deputy director/Project Coordinator)

Short term Experts: a total of 4 experts in 4 fields (evaluation on the management of agropasture rotation system, analysis of fertilizer, analysis of agrochemical, and seed testing)

Training in Japan: 4 executives from Nikkei cooperatives participated in the “administration of agricultural cooperatives” held in Japan.

Training in the third country: 2 C/P personnel participated in “PCR testing method for seed testing” in Brazil.

Provision of equipment: equivalent to a total amount of approximately 53 million Japanese yen

Land: Main area (115ha) and secondary area (56ha) in Yguazu Colony

Facilities: Main building, warehouses laboratories, greenhouses, seed silos, houses, etc.

Project Staff: 5 staff for the management section, 5 staff for the operation section, and 18 workers (at the moment of the October 1, 2009)

Project Cost: approx. 327 million yen (as of October 27, 2009)

**Paraguayan side:**

Counterpart Personnel: 5 C/P personnel belong to Central Nikkei Cooperative (as of October 2009)

Project Cost: equivalent to 27 million yen was provided by Central Nikkei Cooperative (employment cost of C/P personnel, and cost for the pre-transferred services)

Granting of privileges, exemptions and benefits

**2. Evaluation Team**

Members of Evaluation Team	Leader: Michiko UMEZAKI, Deputy Director General, Rural Development Department, JICA Planning and Administration: Yohei HASHIMOTO, Program Officer, Field Crop Based Farming Area Group, Rural Development Department, JICA Evaluation Analysis: Yuki OHASHI, Consultant, Interworks, Co., Ltd.	
Period of Evaluation	October 30, 2009 - November 13, 2009	Type of Evaluation: Final Evaluation

**3. Evaluation Results**

**3-1 Project Performance**

**(1) Achievement of Outputs**

Output 1: Sustainable and appropriate techniques of upland crops cultivation will be established for eastern region of Paraguay.

In terms of the technical development and verification, there are some technologies which CETAPAR has not reached to the stage of dissemination (such as the development of new variety of soybean and agropasture rotation system). However, regarding the other technologies which have prepared for the dissemination (such as regionally adaptable varieties of soybean and wheat, new effective green manure, pest

and disease control, and soil management), it was confirmed that they have been diffused to farmers through the technical services provided by CETAPAR. As to the appropriate techniques to the region, due to the differences in the characteristics of each area and farmer, it is not that all these techniques are accepted and utilized by all areas and farmers. However, some techniques which are common to some of the areas and those which are appropriate for certain areas have been already utilized respectively by corresponding farmers.

Output 2: The technical services on stable agricultural production are implemented.

It was confirmed that the technical services including the regional visit, seminars, provision of technical information, soil diagnoses, and technical assistance extended for small scale farmers, have been implemented as they were planned throughout the project period.

Output 3: The Center which can provide tests and analyses is registered as a certificated institution.

While the acquisition of certification has progressed, some titles still remain uncertified. The Project is working on the uncompleted activities, planning to complete them by the end of the project period, including the personnel training and preparation of manuals.

Output 4: The management structure to implement new CETAPAR after the transferring is prepared.

Regarding the management structure, although there are some uncompleted items in the personnel training and the preparation of manuals, they are planned to be completed by the end of the project period. The implementation plan has been mostly prepared mainly by the preparatory committee of Nikkei-CETAPAR Foundation.

**(2) Achievement of Project Purpose**

CETAPAR is prepared as foundation of the core center for agricultural development in eastern region of Paraguay.

Especially in the Phase 2, CETAPAR has strengthened the collaboration with the related organizations of Ministry of Agriculture and Livestock, such as Direction of Agricultural Investigation, Direction of Agricultural Extension, and Direction of Animal Investigation and Production. As a result, it gained recognition among them. The utilization of services provided by CETAPAR has been increased, and it is expected to be promoted more after the transfer not only among the Nikkei farmers but also among the other farmers and enterprises, particularly by the participation of FECOPROD (a federation of 31 producers cooperatives) and UNICOOP (a national cooperative association of 8 cooperatives). The general framework of operation system after the transfer has been determined already, but it is necessary to embody the operational regulations in the rest of the project period.

**(3) Achievement of Overall Goal (perspective)**

Sustainable Agricultural Techniques are disseminated in the eastern region of Paraguay.

As mentioned in the “Achievement of Project Purpose”, CETAPAR’s services are expected to be utilized more in the wider area in the future. Therefore, it will be able to contribute to the achievement of the Overall Goal. On the other hand, the productivity of latest years shows an upward tendency, despite the risks of yield reduction caused by the natural disasters.

**3-2 Summary of the Evaluation Results**

**(1) Relevance**

The Project is highly relevant in terms of the consistency to the needs of target area and group, the agricultural policy of Paraguayan Government, and the Japanese aid policy to Paraguay. Also, it was identified that the collaboration with Paraguayan related organizations and the volunteer programs of JICA were adequate, and the introduced technologies were appropriate.

**(2) Effectiveness**

As it was shown in the achievement of the Project Purpose, the recognition of CETAPAR has been increased, the function as a provider of services with high demand has prepared, and the framework of operation system has been established except to some uncompleted activities such as the preparation of the operational regulations. Therefore, there are good prospects of achieving the Project Purpose by the end of the project period.

**(3) Efficiency**

In the technical development of CETAPAR, the pest and disease control and soil diagnoses in particular have been disseminated through the technical services such as regional visit and monitoring. Although there are uncompleted activities, including the acquisition of some of the certifications, personnel training of some technical items, and preparation of some manuals, they are planned to be completed by the end of the project period. The operation plans have been mostly prepared by the preparatory committee of Nikkei-CETAPAR Foundation, except to the operation plan of seed production which has been under preparation yet. These outputs have been produced as a result of sufficient implementation of the activities. In addition, the inputs utilized in these activities were adequate in terms of quality, quantity and timing. Therefore, the efficiency of the Project was high in general.

**(4) Impact**

The productivity of the eastern region has been on the rise in late years, while the yield production has dropped in the year influenced by environmental effects such as drought. In CETAPAR the operation system to contribute to the agricultural development in the eastern region has been mostly prepared through the implementation of the Project, mainly in the services to be provided after the transfer, such as seed production and laboratory analysis, which are expected to maintain high demand in the future. In other fields, there is a discussion about the possibility to continue the development and/or verification of some technologies which are high in demand and able to contribute to the improvement of farming techniques in the future even though they are low in profitability. The detailed plans of such activities will be needed in the future. In addition, it can be expected that the involvement of FECOPROD and UNICOOP will contribute to promote the expansion of the services. Therefore, it is considered that sufficient impacts will be attained by the Project.

**(5) Sustainability**

In terms of the sustainability of CETAPAR after the transfer, the discussion between the preparatory committee of the Nikkei-CETAPAR Foundation and the Project has been continued throughout the project period. In organizational aspect, the Central Nikkei Cooperative, as the recipient organization, has decided to establish Nikkei-CETAPAR Foundation in order to diversify sources of operational expenses under the post-transfer administration. The preparatory committee of the Foundation has been taking the leading role to embody the detailed plan, and the operation and management plans has been already prepared. On the other hand, the involvement of FECOPROD and UNICOOP in the management committee of the Foundation will strengthen the relationship with other related organizations, the expansion of the services, and the access to the external financial resources. In financial aspect, considering the self-income of the CETAPAR, the provision of profitable services such as seed production and laboratory analysis has been determined. The possibility to implement the activities which are low in profitability, such as research and investigation, human resource development, social and community contribution, etc. by securing external financial resources has been discussed. In technical aspect, it is considered that there is no technical issue as far as the existing main human resources remain in CETAPAR after the transfer. However, in order to radicate these human resources, it is necessary to secure the satisfaction and condition of their work, and also the opportunity to update their technologies. In addition, it is planned to continue a joint research with JIRCAS

(Japan International Research Center for Agricultural Sciences) in a specific theme after the transfer, and it is expected to maintain and develop a network with such Japanese research institutes.

### **3-3. Factors promoting the production of effects**

- The facilities of seed production and agrochemical analysis and testing were prepared even in the final year of the Project, borne by both JICA and Nikkei cooperatives.
- The testing was started by strengthening the relationship with SENAVE, which resulted in the improvement of service reliability.
- CETAPAR has contributed to the human resource development through the agreement with National University of Asunción, which enhanced its recognition and reliability in the country.
- CETAPAR had a position developed in the 48 years of history accumulated in Paraguay.

### **3-4. Factors inhibiting the production of effects**

- There were resignations of personnel who received technical transfer.
- There were influences of drought and thunderstorm.

### **3-5. Conclusion**

The Project realized the detailed discussions with the Central Nikkei Cooperative to determine the operational structure after the transfer of CETAPR in the April 2010, and simultaneously the establishment of foundation of the Center during the preparation period in order to hand it over smoothly. The former has reached to the stage where the operation and management plans have been prepared and the operational regulations will be embodied in the rest of the project period. The latter will be achieved by finishing some uncompleted activities which are planned to be completed by the end of the project period, and it can be considered that the preparation for the activities to be carried out after the transfer have been getting completed on the whole. The relevance is high in the needs of target area as a base of agricultural development in the region, and also the sufficient effectiveness was identified since the structure to provide the services to meet the needs will be prepared by the end of the project period. The efficiency was also sufficient since the production of outputs will be achieved as a result of appropriate activities and inputs. As a consequence, the Project has mostly prepared the structure which can be expected to contribute to the achievement of Overall Goal in the future. The sustainability under the post-transfer management has been discussed through the various meetings in terms organizational, financial and technical aspects. During the final 5 months until the end of the project period, it is expected to make efforts for the final preparation of the transfer, completing the unfinished activities, such as the rest of registration of new varieties of soybeans, acquisition of certifications, personnel trainings, and preparation of manuals.

### **3-6. Recommendations**

#### **(1) Sustainability of CETAPAR after the transfer**

In order to strengthen the financial sustainability after the transfer, the Project conducted the preparations focusing on the profitable activities. CETAPAR is required to meet the needs of eastern region of Paraguay flexibly, and it is expected to continue other activities as well, such as technical development, human resource development, dissemination of technologies, social and community contributions, etc., by determining the concrete means of implementation and obtaining the external funds. In this way it is expected to establish its position firmly as a center to contribute to the region as a whole.

#### **(2) Efforts to maintain and update the technologies**

Since finding the substitute of eligible human resources is difficult task, it is required to consider the

measures to maintain the staff who received trainings. Also, in order to maintain and update the accumulated technologies, the continuous personnel trainings and collaboration with related organizations are important. After the transfer, it is expected to promote the provision of opportunities to update skills and knowledge of technical staff and collaboration with research institutes such as universities and JIRCAS.