

Summary

Evaluation conducted by: OPMAC Corporation

1. Outline of the Project	
Country: Republic of Paraguay	Project title: The Improvement of Small and Medium Scale Dairy Farm Management Project
Issue/Sector: Agriculture/General	Cooperation Scheme: Project Type Technical Cooperation
Division in charge: Field Crop Base Farming Area II, Rural Development Department (Field Crop Based Farming Area Division 1 (Latin America and the Caribbean), Rural Development Department)	Total Cost: 147 million Yen
Period of Cooperation	November 11, 2002 to November 10, 2004
	Partner Country's Implementing Organization: Ministry of Agriculture and Livestock (MAG), particularly of Animal Investigation and Production (DIPA) as an executing organization of the Project
	Supporting Organization in Japan: Ministry of Agriculture, Forestry and Fisheries (MAFF)
Related Cooperation	None in particular
<p>1-1. Background of the Project</p> <p>As the background of the Project, demand for milk in Paraguay has been rising in line with increase of per capita consumption and recent population growth: however, milk production in the country cannot adequately meet the demand, part of which has been satisfied with the imported products. On the other hand, small and medium scale dairy farmers with no more than 4 head of dairy cattle account for 80% of total dairy farmers, many of which produce milk for their domestic consumption and/or door-to-door sales in their neighborhoods, and their productivity remains low. Furthermore, although activities for artificial insemination have been conducted to some extent, extension activities for pasture management are not yet sufficient. In particular, the technical level of small and medium scale farmers remains at a low level.</p> <p>With the objective of improving the technical level of dairy farming, the Government of the Republic of Paraguay requested project-type technical cooperation to the Government of Japan in 1998 to improve management of small and medium scale dairy farms by improving technology for milk production. In response to the request, JICA conducted studies based on the request and examined cooperation plans to cope with various technical issues. The result of the studies identified room for improvement on the supporting system to small and medium scale dairy farmers on the Paraguay side, such as extension system of the technology and demarcation of roles and functions among relevant agencies. It was concluded that the technology improvement project as initially requested would not effectively generate sufficient benefits to small and medium scale dairy farmers, the final target groups, under such situation. Thus, based on discussions with relevant agencies, it was decided that the activities in the technical cooperation project should focus on defining tactics and establishing the supporting system for small and medium dairy farm.</p>	
<p>1-2. Project Overview</p> <p>The Project area covered all of Paraguay and the target group included small and medium scale dairy farmers. The counterpart organizations were Dirección de Investigación y Producción Animal (DIPA), Dirección de Extensión Agraria (DEAG), and Dirección General de Planificación (DGP) of Ministerio de Agricultura y Ganadería (MAG). The Project purpose was set as “clarification of supporting system for the improvement of small and medium scale dairy farm management and corresponding reform of the roles and the functions of related organizations. The “administrative advisory” type technical cooperation project was undertaken. The following</p>	

summarizes the Project:

(1) Overall Goal:

An appropriate dairy farm management model that is suitable for small and medium scale farmers.

(2) Project Purpose:

Supporting system for the improvement of small and medium scale dairy farm management is clarified and the roles and the functions of related organizations* are reformed accordingly.

(*Related organizations: MAG, National University of Asuncion, Local Governments, Municipalities, Cooperatives, Farmers Associations, Dairy Industry, Credits Institutions, etc.)

(3) Outputs:

- 1) The actual status of farm management of small and medium scale farmers, agricultural cooperatives, farmers' groups, milk markets, activities of the DIPA, and measures of the MAG in the dairy sector are investigated.
- 2) Tactics to assist the improvement of farm management of small and medium scale farmers are defined.
- 3) The roles and functions of related organizations will be clarified, so as to build a system for assisting the improvement of farm management of small and medium scale farmers

(4) Inputs

Japanese side:

Long-term Expert:	3 persons	Equipment:	5 million Yen
Short-term Expert:	3 persons	Local cost:	6 million Yen
Third Country Expert:	2 persons		
Trainees received:	7 persons		

(Counterpart training 4 persons, Group training course 3 persons)

Total 147 million Yen

Paraguay side:

Counterpart: 14 persons (total no. of persons involved over the Project period: 19 persons) Local cost: 1,600 million Paraguay Guarani, (equivalent to approx. 3 million Yen)

Land and facilities: Project office, meeting room, parking spaces, etc.

2. Evaluation Team

Members of Evaluation Team	Team leader/evaluation design: Ms. Mitsue MISHIMA, OPMAC Corp. Consultant Evaluation expert/site survey: Ms. Hisami Nakamura, OPMAC Corp. Consultant Evaluation expert of agriculture/rural development aspects: Dr. Kiyoko HITSUDA, Japan Development Service Co., Ltd., Consultant	
Period of Evaluation	November 24, 2008 to April 24, 2009 (Field Trip: February 21, 2009 to March 2, 2009)	Type of Evaluation: Ex-post Evaluation

3. Project Performance

3-1. Performance of Project Purpose

The Project purpose has not adequately been achieved. The Project purpose was composed of the two elements, i.e., "clarification of supporting system for the improvement of small and medium scale dairy farm management" and "corresponding reform of the roles and the functions of related organizations." The indicator of "compilation of a national plan for dairy farm promotion" was related to the former Project purpose but the plan relevant to this indicator was not actually prepared by the Project. As it turned out that "The Dairy Farm Development Plan for Small and Medium Farmers" (hereinafter referred as the "Plan") was prepared under the Project, this is regarded as one of the outputs of the Project.

With regard to "reform of the roles and the functions of related organizations," relevant

indicators have not been clearly set up. Relevant to this part is Output 3, i.e. “Clarification of the roles and functions of related organizations, so as to build a system for assisting the improvement of farm management of small and medium scale farmers.” However, the terminal evaluation points out room for improvement in terms of the achievement of Output 3. In addition, the “Plan” that was formulated under the Project is yet to clarify the roles and functions of related organizations and the terminal evaluation also raises areas to be improved.

3-2. Achievement related to Overall Goal

At the time of the ex-post evaluation, it was confirmed that the overall goal had not been achieved.

Regarding the overall goal of “establishment of an appropriate dairy farm management model that is suitable for small and medium scale farmers,” “improvement of farmers’ income by dairy production over the pre-Project income in model area” is not appropriate as an indicator. Hence, in consideration of the causal relation with the Project purpose, the alternative indicator “establishment of model demonstration farms,” which satisfies management indicators incorporated in the “Plan,” was set to examine if the overall goal has been achieved. As of the time of the ex-post evaluation, model demonstration farms were yet to be constructed in the farms in San Lorenzo (in the premises of DIPA) and Eusebio Ayala though the constructions were planned at the time of terminal evaluation.

3-3. Follow-up of the Recommendations by Terminal Evaluation Study

At the time of the terminal evaluation study, analysis was conducted over the “Plan” prepared in the Project and the following recommendations were made in order to work out a more concrete plan: (1) clearly describe the propagation process of the positive effects to be generated to the final target groups (small and medium scale farmers); (2) clarify the priority subjects or issues to be tackled; (3) clearly describe the roles and functions of related organizations both inside and outside MAG ; (4) consider the possible countermeasures to the technical extension services and; (5) share necessary information among the stakeholders related to the Project.

Confirmation at the time of the ex-post-evaluation reveals that the above recommendations have not been put into practice except for recommendation (5).

4. Results of Evaluation

4-1. Summary of Evaluation Results

(1) Relevance

In general, relevance of the Project is evaluated to be low.

Priority was placed on agriculture, forestry and livestock industry in Japan’s basic aid policy toward Paraguay at the beginning of the Project implementation, while emphasis is also placed on the poverty reduction in the current basic policy. Therefore, consistency of the Japan’s ODA policy is maintained with the Project that targets small and medium farmers. As for the needs in Paraguay society, because conditions that necessitate domestic production to be increased continue to prevail in order to cope with the increasing demand for cattle milk in Paraguay, there have been persistent needs to increase milk production.

However, the agriculture policy of the Government of Paraguay places less priority on the livestock sector than the agriculture sector and furthermore, the dairy farming sector takes a relatively lower position within the livestock sector.

In addition, small and medium scale farmers that account for a majority of the target group run mixed husbandry and their incentives to increase and commercialize dairy production are not strong enough. Therefore, from the viewpoint of supporting small scale farmers, the strategy adopted in this Project by targeting only dairy farming promotion is not considered to be adequate. Moreover, needs from dairy milk industries for the supply of raw milk by small and medium scale farmers are not being met at present in the light of the quality, including the hygiene management, and distribution system. Based on these observations and analyses, it has to be concluded that the needs of small and medium scale farmers to increase the dairy milk production are limited.

(2) Effectiveness

Effectiveness is evaluated to be low.

The achievement of the Project purpose is insufficient. One of the reasons is that the logic of the causal relation between the Project purpose and the outputs in the Project Design Matrix (PDM) was not adequately constructed and another reason is that the achievement of the respective outputs was not sufficient.

As for Output 1, while investigation of the actual conditions surrounding small and medium scale farmers centered on the part of the dairy farming, it is considered that study on the extension system, organization of farmers, agricultural credit institutions, etc. was not sufficiently conducted. With regard to Output 2, assistance measures for the part that was insufficient in Output 1 were only studied and concrete measures were not proposed. In terms of Output 3, adequate indicators were not set up: evaluation should be based on whether or not roles and functions of stakeholders including related organizations other than the MAG were clarified in the "Plan" prepared under the Project.

(3) Efficiency

Efficiency is judged to be low based on the examination of the conversion from Inputs to Outputs and Outcome as well as of the adequacy and timing of Inputs.

As for the conversion from Inputs, achievements of both Outputs and the Project purpose are insufficient. While it cannot be said that Inputs have been efficiently converted, the cost-effectiveness is also low.

In terms of the adequacy of Inputs, the main inputs from the Japanese and Paraguay sides were human resources reflecting the specific features of the Project as being a policy-support-type one: however, the majority of human resources from both sides were experts in the field of dairy farming technologies and management and no Inputs were made in terms of the human resources that would clarify roles and functions of related organizations and formulate a plan to accelerate the improvement.

In addition, the terminal evaluation pointed out the impact of the delay of Inputs from the Paraguay side on the progress of the activities of the Project. However, this kind of issue was raised before starting the Project and it was necessary to take effective measures in order to avoid such delay. Hence, in fact, the delay seriously harmed efficiency of the Project and it cannot be ignored as a trivial matter in the short-term Project of two years.

(4) Impact

The impact confirmed at the ex-post evaluation of the Project is very minimal.

- Achievement of the overall goal: has not been achieved.
- Capacity building of related personnel: the capacity building was observed based on the self-evaluation of counterparts (7 persons) who took part in the counterpart training and group training. Particularly, an ex-staff member, who works as a lecturer at university faculty of veterinary, makes good use of knowledge and technology relating to dairy husbandry, which was gained through the Project, for teaching of younger generations, contributing to the human resource development in the field of dairy husbandry.
- As for other spillover effects, it is hard to identify the direct causal relation with the Project.
- No particular negative impact has been observed.

(5) Sustainability

Sustainability of the Project is low.

The "Plan" prepared under the Project has not been put into practice because budgetary measures were not taken after the completion of the Project. Besides, personnels are not sufficiently mobilized to spread among the entire target group the technology relating to dairy husbandry introduced through the Project. Even in the departments where personnel have been assigned, the extension services are carried out on a very limited scale because the MAG does not allocate sufficient budgets for activities (required for vehicles and fuels) to DEAG.

At present, the entire agriculture policy is being reviewed under the new administration. It is expected that more emphasis will be placed on the livestock sector in the entire agriculture policy and more priority will also be put on dairy husbandry than before. Nonetheless, it is not realistic to

anticipate a large increase in the budget if the positions that the livestock sector and dairy husbandry used to take in the past are taken into account.

4-2. Factors that have promoted the Project

At the time of the ex-post evaluation, since impact was realized on a limited scale and sustainability was also low, there is no particular factor that has promoted the Project.

4-3. Factors that have inhibited the Project

(1) Impact

The most crucial reason why the “Plan,” the outcome of the Project, was not implemented and spillover effects from the implementation were not seen was that the priority to support dairy husbandry for small and medium scale farmers was not high so that budgetary measures were not taken and the implementation system was not well arranged. This situation is attributed to the facts that there was not a consistent policy based on the analysis of needs, markets, competitiveness, etc. and the promotion of dairy husbandry was not well supported with the relevant policy.

(2) Sustainability

In order to ensure sustainability of the Project, it was indispensable to improve and solve organizational issues of the MAG. The factor that inhibited sustainability was that the Project did not take sufficient measures to address these issues.

At the meeting to work out the details of the technical cooperation program in the beginning of the Project, organizational issues of the MAG were figured out and it was indicated in the mission’s observation that “it is appropriate to make efforts to improve the capacity of the public administration through the Project.” Nonetheless, the appropriate approach, which enables improvement of the administrative capacity including the selection of counterparts, was not adopted under the Project and sufficient efforts were not undertaken to address the issues. Institutional set-up and duration were insufficient in order to improve administrative capacities that had been pointed out as issues to tackle.

(3) Factors that have inhibited effectiveness and efficiency

Problems are identified in the approaches adopted by the Project, such as selection of the target group, logic of the Project approach (causal relation among Outputs, Project Purpose and Overall Goal), establishment of indicators, etc. and subsequently, major revisions were required for the PDM. It can be pointed out that the problem concerning the Project approach was the biggest factor that inhibited effectiveness and efficiency.

- Lack of measures to meet demand of the target group: needs of medium scale dairy farmers and small scale farmers who operate mixed husbandry are different by nature so that “appropriate systems for assistance” are different for respective groups of farmers. Effective measures that meet needs of the target group were not adequately undertaken.
- Inappropriate approaches adopted in the Project: if the Project purpose is set as “clarification of supporting system for the improvement of small and medium scale dairy farm management and corresponding reform of the roles and the functions of related organizations,” it was inappropriate to set up an implementing structure with DIPA being the major counterparts in consideration of its functions and authorities. Moreover, inputs from the Japanese side, the majority of which are related to dairy farming technology and management, were insufficient.
- Extra burden required for revisions of the plan during the Project implementation period: despite the short project period of two years, revisions needed to be made over the Project plan, which required lots of time. Therefore, the energy and time which should have been spent for the Project activities were spared for the revising works of the plan, thus becoming a factor that inhibited efficient implementation of the Project.

4-4. Conclusion

The study in this ex-post evaluation identified that needs of the target group had not been reflected in the Project approach so that the Project was not relevant at the time of the Project

formulation. In addition, because the implementation system, Inputs, strategies were not logically constructed, effectiveness and efficiency became low, subsequently serving as a factor to impede achievements of the overall goal and Project purpose. Although problems relating to the budgetary and extension system of the MAG were grasped prior to the commencement of the Project, lack of countermeasure to tackle those problems in the Project resulted in the limited outcomes and harmed sustainability of the Project.

4-5. Recommendations

(Recommendations to JICA)

- Effective use of the outcome of the Project: although the “Plan” requires some revisions, it provides somehow concrete descriptions concerning the dairy farming of small and medium scale farmers. When assistance to dairy farming is examined under the studies/projects such as on-going “comprehensive rural development project for peasant support in Paraguay,” more concrete and feasible measures need to be devised based on the “Plan”.

(Recommendation to the MAG)

- Study on systems for assisting dairy husbandry that meet needs of small and medium scale farmers: after having identified respective needs of medium scale farmers as well as small scale farmers, it is necessary to clarify assistance framework to the respective types of farmers and then to define the position of the assistance policy in the livelihood sector including dairy husbandry at the MAG. Besides, it is required to select high-priority projects whose effectiveness is expected to be high, take budgetary measures and implement them under the practical implementation system.

4-6. Lessons Learned

(Lessons learned to JICA)

- Importance to grasp needs of the target group: at the time of the formulation of this Project, needs of small scale farmers towards improvement of their farm management were not grasped and reflected in the Project. Prior to the Project implementation, it was necessary to grasp actual conditions of the target group, review appropriateness of the target group based on the results of the study and set the Project purpose to meet the needs of the target group.
- Importance of the approach centering on the organizational reform under the policy-support-type technical cooperation project: since the limited administrative capacity and organizational issues of the MAG were recognized prior to the Project implementation and the Project was designed to improve functions of the organizations. However, the Project adopted an approach so that the majority of the counterparts came from technical departments. In this respect, the measures taken by the Project did not match with the purpose. When assistance is planned to the agriculture sector in Paraguay, it is necessary to undertake measures to address issues that have persistently existed such as problems with budgetary systems, low feasibility of measures and malfunction of extension services with less developed extension systems. Hence, it is essential to make recommendations on organizational and management issues of the MAG and to support implement them as well as to formulate strategies for networking with the local governments, farmer’s groups, and so forth.
- Project planning and management system through sufficient preparatory works: despite the short-term implementation of two years, the framework of the Project was not clearly defined, problems were found in the selection of indicators, and so on. Moreover, since inputs were not appropriate in consideration of the Project purpose so that the Project management was not efficiently conducted, the Project outcome was limited. In order to effectively implement a project in a short period of time, it is indispensable to carry out the study and preparation works prior to the project implementation so as to avoid major revisions required during the project implementation period and to design a project based on the appropriate approaches. Furthermore, in a short-term project, it is effective to make timely improvement of the project operation based on the daily monitoring of the project.

(Lessons learned for MAG)

- Preparation of a cross-sectional program to assist small and medium scale farmers, which reflects actual conditions: while assistance measures prepared through the vertically-segmented administrative system by division tend to present measures to solve issues such as technical problems that are narrow in scope, measures to tackle problems such as improvement of extension services that are common issues among different divisions are not taken up. Therefore, these measures become short of practical effectiveness and efficiency. In order to assist the improvement of small and medium scale farmers, firstly, it is necessary to accurately grasp conditions of their farm management, issues and needs. Then, rather than a sectional program, but a cross-sectional program needs to be prepared in order to support small and medium scale farmers
- Reconstruction of functional extension system: it is often heard that “extension workers can not carry out their activities due to shortage of budgets” but the structural revenue shortage of the Government financial conditions is not solved in a short period of time. Therefore, it is necessary to study ways to construct effective extension systems under the current situation where sufficient budget cannot be allocated. When the extension system is to be reconstructed, it is an important point to cooperate closely with Local Governments, NGOs, private organizations, etc. and strengthen farmers’ organizations. Though some farmers hesitate to participate in farmers’ organizations because they do not foresee benefits from the participation, reconstruction of the functional extension system based on farmers’ organizations will provide farmers with incentives for organization.
- Reconstruction of agriculture credit system that meets measures to support small and medium scale farmers: although the Project did not make clear funding issues, farmers face difficulties in mobilizing funds when they improve farm management including dairy husbandry. This requires revision of the agriculture credit system as well. The Agriculture Credit Corporation extends small lendings to small scale farmers at interest rates lower than ordinary loans but it decreases the volume of loans due to problems in management. It is necessary to reconstruct a sustainable agricultural credit system that copes with the effective assistance measures for small and medium scale farmers.