

Summary

Evaluation conducted by: JICA Overseas Office 1.

Outline of the Project		
Country : Paraguay		Project title : Improvement for Vegetable Production Technology for Small- Scale Farmers
Issue/Sector : Agriculture		Cooperation scheme : Technical cooperation
Section in charge :		Total cost : 876.913.000 yens
Period of Cooperation	From April 1997 to March de 2002	Partner Country's Related Organization(s) : The Agriculture Ministry (MAG) with its institutions; the National Agronomic Institute (IAN) , the Direction of Extension Service (DEAG) and the Technological Agronomic Center in Paraguay (CETAPAR)
Related		Supporting Organization in Japan :
1-1. Background of the Project		
<p>In the mid 90's, in Paraguay, small-scale farmers were 83% of all the land owners. Their economic situation was really difficult because of the reduction in the prices of the main crops (soybean and cotton), the loss of natural resources and the lack of new technology in the crop management. At the same time the Common Market of the South (MERCOSUR – 01/01/1995) was created, its purpose was to promote the free trade in the South American region. The open of these new markets demanded from the farmers a better production capacity and the strengthen of the small farmers by diversifying their crops.</p> <p>Do to this situation the Paraguayan government considered vegetables growing to be a good opportunity for small-scale farmers to expand their production scope. This would increase considerably the farmers incomes, and with a good technical assistance vegetables growth could reach a higher productivity, that could assure a stable production with environmental friendly insect pest control and practices. The research and development of new technologies in this area, necessary to achieve this objectives, would immediately improve the farmers life quality and guarantee economic stability to their families. For all these reasons the Paraguayan government, in January 1995, officially asked the Japanese Government for technical cooperation aid.</p>		
1-2. Project Overview		
<p>The Project for the Improvement for Vegetable Production Technology for Small- Scale Farmers was executed with the aid of the Japanese technical cooperation. The projected was looking to develop and share improved ways of vegetables growing techniques for small-scale farmers. The project's goal was "to develop, at the National Agronomic Institute (IAN), vegetables growing techniques adapted to the production system of the small-scale farmers". These techniques were share with small-scale farmers from five different Departments (Central, Cordillera, Paraguari, Caaguazú and Alto Paraná). The project's main headquarter was located in the National Agronomic Institute (IAN), another headquarter was located in the Extension Service Direction (DEAG), both depending on the Agriculture Ministry. The Agronomic Technologic Center in Paraguay (CETAPAR) was also supporting the project's activities.</p>		
(1) Overall Goal		
<ul style="list-style-type: none"> • To increase incomes from vegetables crops of the small-scale farmers from the areas involved in the project. • To increase the production and quality of the vegetables in the areas involved in the project. 		
(2) Project Purpose		
<ul style="list-style-type: none"> • To develop growing techniques, at the National Agronomic Institute, for the small-scale farmers. The techniques will be share with farmer leaders of the area. 		
(3) Outputs		
<ul style="list-style-type: none"> • The selection and development of varieties • The development of accurate techniques of vegetables growing • The determination of the frequency and ecology of the main insect pests and diseases, also the development of techniques that will help to control them. • To transfer all the knowledge and techniques developed in the project to extension workers and small-scale farmers leaders for its diffusion 		
(4) Inputs (as of the Project's termination)		
Japanese side :		
Long-term Expert	8 ___ Equipment	134.656.000 Yens
Short-term Expert	15 ___ Local cost	89.143.000 Yens
Trainees received	17 ___ Others	653.114.000 Yens
Paraguay's Side :		
Counterpart	___ Equipment	___ local currency (___ Yen)
Land and Facilities	___ local currency (___ Yen)	Local Cost ___ local currency (21.844.000 of Yens)
Others	___ local currency (___ Yen)	

2. Evaluation Team		
Members of Evaluation Team	JICA/ Paraguay Office Local consulting team: COPLANEA	
Period of evaluation	Day/ month/ Year -Day/ month/ Year 10/02/2005 – 15/03/2005	Type of Evaluation : Ex-Post Evaluation
3. Results of Evaluation		
Summary of Evaluation Results		
<p>(1) Impact: The project had a positive impact in the farmers' financial situation allowing them to increase their incomes and improving their production infrastructure by buying new equipments and supplies. It also helped them to improve their homes and their children schooling. The small scale farmers also had an improvement in their production after starting to use the new techniques and genetic material from the project. This happened because the techniques developed in the project (methods to detect, identify and control pests and diseases, plantlets production, weather protection, among others) can also be use with vegetables that were not a part of the project's study, but that are part of the diversify production that characterizes the small scale farmer. Another impact of the project was its capacity to solve the major problems that the farmers had, who are the main vegetables growers in the country.</p> <p>(2) Sustainability: The majority of the farmers' organizations are still using the techniques learned during the project's implementation. At an institutional level the project had generated growing techniques, new varieties (specially the Dover strawberry), incomes from seed sale and knowledge that is sustainable despite the low budget assigned and the rotation of the trained staff. This did not help to generate a good environment to conduct researches and to promote technologies. The lack of a policy for the sector weakens the MAG's assignation of resources for horticulture.</p>		
3-2. Factors that have promoted project		
<p>(1) Impact:</p> <ul style="list-style-type: none"> ✓ The limited previous experience, of the MAG and its institutions, in research and promotion of vegetable¹ growing techniques highlighted the importance of the project's achievements. ✓ The material that were chosen, specially the Dover strawberry variety, had a very good acceptance among the farmers and the market. ✓ The techniques develop for identification and insect pest control as well as diseases helped solve one of the farmers main problems. ✓ The three main focus vegetables (tomato, melon and strawberry) of the project are of great social and economic importance. Therefore the improvement of the growing techniques was a real need of the small farmers. <p>(2) Sustainability:</p> <ul style="list-style-type: none"> ✓ The promotion of the new techniques was focused on farmers that had some experience on horticulture to guarantee the better use of the resources. The farmers that were directly involved in the workshops and the members of the committees² whose ladders were trained are still using the techniques. This happen even though the technical assistance by the DEAG decrease after the project was finished. ✓ The fact that there are farmers associations, although some are not very strong, that had a real commitment to the project helped in the promotion of the workshops and techniques (specially among the members of the committees). This gave an better stability to the use of the new techniques learned from the project. <p>(3) Others</p> <ul style="list-style-type: none"> ✓ The fact of being a part of a qualified team of technicians that received the aid of an international organization (JICA) was a great encouragement to all the professionals involved in the project, it made them work with more dedication and enthusiasm. 		
3-3. Factors that have inhibited project		
<p>(1) Impact:</p> <ul style="list-style-type: none"> ✓ The centralization of the administrative structure of the MAG, although the DEAG has several agencies in the countryside, does not help a efficient project management. ✓ The MAG's bureaucracy. Several times it was responsible for the delays on the schedule, specially on this related to the custom green light for the equipment donated by the Japanese counterpart. ✓ The lack of combine work from the various MAG institutions (IAN and DEAG) involved in the project. The project's main focus was the research, the promotion of techniques was a complementary activity that generated some differences between the institutions mentioned above. This situation affected negatively the project's results, not only during its implementation, but afterwards as well <p>(2) Sustainability</p> <ul style="list-style-type: none"> ✓ The lower budgeted and its imprecision did not help to maintain the project's researches and activities. ✓ The rotation of the people that was trained for the projected puts in a jeopardy the continuity of the project's researches and promotion of their results. 		
3-4. Conclusions		

¹ The MAG has always prioritized the researches for the main crops, such as cotton, soybean, wheat, corn, etc.

² Small scale farmers organized in groups.

(1) Impact:

- ✓ MAG does not have a clear policy on horticulture. Even though during the project's implementation it has been prove that research can develop new varieties and genetic material that can provide new production alternatives and new sources of income to the farmers; the Ministry has not yet incorporate the horticulture as an important part of its institutional policies.
- ✓ There is no record of a negative environmental impact of this project.
- ✓ There is no significant change in the institutions involved in the project.
- ✓ As the country is facing a severe economical crisis the budged assigned to maintain the projects results is been reduced.
- ✓ The production of plantlets and seeds generates incomes to the IAN, which is a good financial of contribution that can help maintain the project's results.
- ✓ The promotion of the Dover variety, the training sessions that helped the farmers to identify the main pests and diseases, as well as the ways to control them, the innovations regarding the plantlets production, the technical recommendations for irrigation, fertilization, soil protection, as well as the protection of the crops from the weather, plus development of melon pruning techniques and the print information shared with the farmers are all remarkable achievements that had a positive impact.
- ✓ The new techniques and varieties are still contributing to improve the small scale farmers competitiveness, providing them a source of income.
- ✓ It is a fact that the incomes from the sale of the vegetables is an important part of the farmers' incomes. Which shows the impact of the project in the farmers' financial situation, since vegetable growing is their main source of income.

(2) Sustainability:

- ✓ The low interest in horticulture in the public policies affects the sustainability of the project's results. This leaves less resources not only for the research, but also for the promotion of the results.
- ✓ The highly centralized MAG's structure does not allow the development of a more efficient management, that can ensure the sustainability of the project's results. One way of decentralizing could be to work with the regional governments, that will provide a more effective use of the recourses.
- ✓ Although the project was focused on environmental friendly practices and that the country is increasingly developing a genuine concern for environmental issues, the continuance of this practices is not guarantee do to economic issues. The red label pesticides are more close in price to what the farmers can afford, and there is not a lot of government control to what it is been use in the farms.
- ✓ The lack of economic resources has lead to: a) A desertion of many of the researchers that were originally assigned to the project. They left looking for better payments in other departments of the Ministry or other institutions. b) The unit in charge of executing the Project does not have the means to pay for the supplies necessaries to keep the project working. This situation compromises the continuance of the project's efforts.
- ✓ It is a fact that most of the farmers that participated in the project are still using the techniques they have learnt, which indicates the sustainability of the project. In the cases of farmers' associations that were involved in the project the techniques are still being share and use.in regular bases and with a multiplier effect.

3-5. Recommendations

- ✓ It is very important for future projects to keep in mind the need for decentralization and the inclusion of local governments (departments and districts), specially to promote the results.
- ✓ Regarding public policy it is necessary to focus in creating a stronger competitiveness of the farmers' products.
- ✓ To enlarge the budged for agricultural research projects in general, and specially on those that focuses on horticulture. Try to use the existent infrastructure to generate new research initiatives.
- ✓ To focus the researches in exportation crops, since it has been prove that these are the ones that had an immediate impact on the small-scale farmers' incomes.
- ✓ To incentive researchers focusing on the organic production of vegetables and the protection of the crops with natural product. This could help orient the horticulture production to markets that look for organic products, on a national and MERCOSUR level. By doing this to profit from the comparative advantages the quality of organic products have.
- ✓ Regarding the institutional aspects of the project a new structure, with more technical, administrative and financial autonomy, with a permanent staff and its own training programs, would be recommended. Also a higher technical and scientific qualification, establish a partnership between the public and the private sector in projects where the same interests are shared. To develop the ability to identify and offer projects that focus on the development and promotion of technology based on real demands from the farmers. To develop the capacity to recruit, stimulate and keep researchers that had showed talent, dedication, creativity and commitment to the projects (nationals and international) to develop and strengthen the advantages. To put more emphasis in the promotion of technologies, specially among small scale framers. To diversify the financial sources for the generation and promotion fo technology. Finally to strengthen the promotion of technology thru the technical assistance services, public and privates, as proposed in the IPTA. All of this is essential to achieve an lasting impact and sustainability.

3-6. Lessons learnt

- ✓ The knowledge and techniques that the farmers acquired are a new tools that can be use to grow new crops.
- ✓ The straighten of the farmer associations that were involved in the project is essential to ensure any project's sustainability and impact.
- ✓ It is crucial to any cooperation project to work with government institutions and with specific policies of the area, which can be translate in a commitment to fund and follow the work of the country's counterpart designated for the

project.

- ✓ As a learnt lesson from the prior statement it is important to say that the training courses to local staff is of vital importance and that the rotation or desertion of trained professional from the project must not be allowed, because this jeopardizes its sustainability. The professionals involved in the project should have a long term commitment during and after the project is over.
- ✓ The design of future projects should take into account the actions and developments of systemic components and a global view, that will assure that all the factors that are involved lead to the success of the project.