

Terminal Evaluation

Asia

1. Outline of the Project

Country:

Nepal

Project title:

Mini-Project-Type Technical Cooperation for Sericulture Promotion

Issue/Sector:

Sericulture

Cooperation scheme:

Project-type Technical Cooperation

Division in charge:

Livestock and Horticulture Division,
Agriculture Development Cooperation Department

Total cost:

187 million yen

Period of Cooperation

1 December 1999 - 30
November 2002

Partner Country's Implementing Organization:

Industrial Entomology Directorate, Department of Agriculture, Ministry of
Agriculture and Co-operatives

Supporting Organization in Japan:

Agriculture, Forestry and Fisheries Ministry

Related Cooperation:

Expert Team Dispatch (long-term and short-term); "Sericulture Promotion"

1-1 Background of the Project

The Kingdom of Nepal is an agricultural country where about 80% of the working population is engaged in agriculture. Since the country, which has a high share of sloping terrain, has a limit in the areas for cultivation, there is a need to produce highly value-added crops such as sericulture products, fruits and teas appropriate for a wide range of terrains and climates of the country. The government of Nepal, setting "Poverty Eradication" the matter of the highest priority in The 9th Five-year Plan, made the sericulture promotion as a poverty alleviation policy of hilly and mountainous areas.

As a result of Japan's short-term expert dispatch to Nepal in 1995, it was found that introduction of sericulture technique could contribute to the increase of the earnings of agricultural villages in hilly and mountainous areas. Therefore, Japan has implemented technical guidance by long-term experts since 1995.

Along with the progress of technical transfer by these experts, the government of Nepal requested Japanese cooperation for enlargement of mulberry plantation areas and for establishment of mass a production system, in order to make more progress in sericulture dissemination.

1-2 Project Overview

For the purpose of sericulture promotion in Nepal, Japan implemented technical guidance such as production and control of silkworm eggs, line preservation and sericulture management, targeting engineers in the field of sericulture and model farms.

(1) Overall Goal

To develop the production of cocoons in Nepal in quantity and quality so that the income of sericulture farmers increase.

(2) Project Purpose

To develop the institutional and technical capacities and capabilities of the government of Nepal to manage silkworm egg production, mulberry gardens, and silkworm rearing as well as model farmers to manage mulberry gardens and silkworm rearing.

(3) Outputs

1) Silkworm Egg Production and Management:

- a) To develop techniques for breeding management and maintenance of pureline silkworm races suitable for Nepalese conditions.
- b) To improve techniques for silkworm egg preservation and production, and grainage management.
- c) To improve techniques for seed cocoon production in branch stations.

2) Sericulture Technology Development/ Extension:

- a) To improve techniques for nursery and mulberry garden management, and cocoon production of sericulture development center and model serifarmers.
- b) To improve extension systems and technical capabilities of a sericulture development center and branch offices and model sericulture.

3) Project Monitoring and Planning/Coordination

- a) To supervise and manage project activities successfully.
- b) To promote public information for raising sericulture development.

4) Advice to the Government of Nepal

- a) To advise on facility improvement of sericulture development center.
- b) To advise on data collection of serifarmers and sericulture statistics.
- c) To advise on the establishment of the rules and regulations related to sericulture (silkworm eggs, cocoon grading and nursery sampling).
- d) To advise on production of better quality raw silk.
- e) To advise on development of the extension system
- f) To advise on establishment of the sericulture training center for technicians.
- g) To review long-term sericulture development plan.
- h) To join international silk association.

(4) Inputs

Japanese side:

Long-term Experts	3	Equipment	222,244US\$ (30 million yen)
Short-term Experts	4	Local Cost	426,877 Nepal rupee (73 million yen)
Trainees received	6		

Nepal's Side:

Counterpart	23		
Land and Facilities			
Local Cost	51,799	Nepal rupee	(0.1 million yen)

2. Evaluation Team

Members of Evaluation Team

General: Noriaki, TANBA, Director of Livestock and Horticulture Division, Agricultural Development Cooperation Department, JICA
Sericulture Technique: Etsuko, IGARASHI, Chief, Sericulture Section, Regional Products and Industrial Crops Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries
Project Evaluation: Kai KIKUIRI, Livestock and Horticulture Division, Agricultural Development Cooperation Department, JICA
Evaluation Analysis: Satomi, SUZUKI, Associate Expert, Livestock and Horticulture Division, Agricultural Development Cooperation Department, JICA

Period of Evaluation

28 Sep 2002 - 12 Oct 2002

Type of Evaluation:

Terminal Evaluation

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

In the policies (such as the Long-term Agriculture Plan and the Five Year Plan) of the government of Nepal, sericulture is referred to as a means of poverty alleviation and the development of hilly and mountainous areas. In addition, sericulture is a means of cash income with comparatively small investment in hilly and mountainous areas where about a half of the Nepalese reside. Therefore, the increased production and quality of cocoons and the increase in income by the improvement of sericulture techniques matched with Nepalese farmers' needs. Thus, the project was relevant.

(2) Effectiveness

Because of three years of project activity, the production of cocoons of Nepal increased from thirteen tons to forty-one tons, the number mulberry planting farmers from 2,068 to 4,552, and the number of silkworm rearing farmers from 480 to 1,331. Moreover, in the model farms, the production of cocoons per farmer augmented from 177 kg to 209 kg and the cocoon yield per box from 17.4 kg to 17.6 kg, and the production efficiency improved as well. Accordingly, the achievement of the outputs of the project was highly evaluated in general. However, in the last year of the project period, a state of emergency was declared due to the deterioration of the security situation in Nepal, and not only the short-term experts dispatched in the field of silkworm egg production were canceled, but also the activity area of the long-term experts was also restricted. Therefore, there remain some problems such as the instability of the amount of production in the field of silkworm egg production.

(3) Efficiency

Due to the utilization of equipment provided by other donor organizations, the cost of equipment of the project was reduced, and the efficiency was high in general. Meanwhile, it was pointed out that the following two factors impeded efficiency to some extent: 1) The dispatch period of short-term experts was too short. 2) Only a few experts transferred techniques to a limited number of counterparts. In addition, part of the activities was behind schedule due to the delay of the inputs by the Nepalese side such as the introduction of the equipment and the employment of extension staff.

(4) Impact

The increased income of model farmers who introduced the 'new sericulture techniques' provided incentives for neighboring farmers, and the technical transfer from model farmers to neighboring farmers was promoted. In addition, the new techniques introduced by the project enabled women to practice sericulture without the help of men, so the project contributed to the increase of women's income, and to raising the social status of women. What is more, a positive impact was recognized that forestation of mulberry sloping land is effective in erosion control and soil conservation.

(5) Sustainability

Basic sericulture techniques have been transferred to the counterparts and taken ground. However, sericulture is a comparatively new technique for Nepal and therefore, laws and regulations on sericulture have not yet been prepared, and there is a problem in sustainability concerning institutional aspects. Furthermore, since the budget allocation of the Ministry of Agriculture and Agricultural Cooperatives was decided on a fiscal year basis, securing the budget in the related field is not assured, so the financial sustainability is low.

3-2 Factors that promoted realization of effects

(1) Factors Concerning the Planning

N/A

(2) Factors concerning the Implementation Process

1) The collaboration with other donor organizations and Japan's Grant Assistance for Grassroots Projects were conducted effectively, and the achievement was realized with only small input.

2) Before the project, many staff in the main center and sub-centers of the sericulture experimental station, had a theoretical understanding of sericulture, however, owing to the lack of practical capabilities, the technical transfer was implemented focusing on practical training. As a result, the counterparts became able to transfer techniques to farmers on their own.

3-3 Factors that impeded realization of effects

(1) Factors Concerning the Planning

All activities could not be completed because too many activities were planned for the short period (three years) of implementation.

(2) Factors concerning the Implementation Process

1) Due to the deterioration in the security situation in Nepal, the dispatch of short-term experts were canceled, and the range of activities of long-term experts were restricted. Hence, adequate technical guidance could not be implemented.

2) The administration and management of the project has been inadequate due to the followings: there was a problem in communication between the experts and the counterparts; it was only in the mid-term evaluation of one year prior to the end of the project that the Japanese side made the official confirmation on the project plan (PDM) with the Nepalese side; it was half a year in advance to the end of the project that regular meetings between the Japanese experts and the counterparts began.

3) In the field of policy recommendation, concrete activities were limited because of unclear responsibility.

3-4 Conclusion

The techniques transferred to the counterparts have almost taken ground in Nepal and the project goal was achieved. With regard to the relevance, effectiveness, efficiency and impact, positive results were recognized, but there remained problems in low sustainability, especially in terms of institutional and financial aspects.

3-5 Recommendations

(1) In order to enhance the sustainability after the end of the project, the government of Nepal should implement: 1) Placement of appropriate staff and allocation of budget for maintaining materials and equipment: 2) Establishing of checking systems concerning silkworm egg production: 3) Urgent conclusion of an outsourcing contract of extension staff.

(2) In order to extend the project results, the government of Nepal should conduct the following: 1) Formulation of realistic and strategic mid-term and long-term sericulture development plan: 2) Securing revenue source necessary for implementing above-mentioned development plan: 3) Development of staff, organizations and equipment required for implementing mid-term and long-term sericulture development program: 4) Measures for farmers who have no land or small land: 5) Preparation of laws and regulations. In addition, the evaluation team agreed on the necessity of the Japanese experts dispatch for carrying on the project activity.

3-6 Lessons Learned

(1) In order to implement cooperation along the policy of the partner country, the project needs to be positioned as a part of an action plan of the relevant field of the country's policy. When there is no action plan, cooperation should be brought about after the formulation of an action plan or cooperation including its formulation should be conducted.

(2) In order to secure financial sustainability, the inputs (such as experts dispatch, equipment supply, and local cost) should be stringently kept to a minimum requisite. Furthermore, it is important to confirm cooperation activities of other donor organizations and the budget of a partner country in advance of the decision for the size of a project.

(3) In the field where a domestic supporting system is limited, it is crucial to construct a communication system with related organizations in neighboring countries in order to take advantage of the knowledge of these countries.

3-7 Follow-up Situation

Taking the recommendations above into consideration, the dispatch of two-year follow-up experts for the preparation of laws and regulations has been in action since February in 2003. It is also planned that follow-up short-term experts in the field of silkworm egg production and silk reeling will be dispatched within the fiscal year of 2003.