

**PROMOTION OF QUALITY COCOON
PRODUCTION AND PROCESSING
PROJECT IN NEPAL
(PQCPPP)**

PROJECT COMPLETION REPORT

NOVEMBER 2011

PQCPPP

EXECUTIVE SUMMARY

1. Overview

The Promotion of Quality Cocoon Production and Processing Project in Nepal (hereinafter referred to as “PQCPPP”) has been completed in November 2011. This Completion Report outlines the objectives, process, achievements and lessons learnt from the three year experience of PQCPPP.

The project was designed to create models for producing quality cocoon and silk. The two projected outputs were formulated as follows:

- 1. The model for quality cocoon and silk production are replicated to other parts of Nepal*
- 2. The income of seri-farmers and workers around seri-farmers is increased*

The project purpose was formulated as:

“The quality cocoon and silk production model is verified in the target area through capacity building and strengthening of the linkage among seri-farmers groups, Government technicians, private entrepreneurs and other stakeholders.”

The Project Design Matrix (PDM) was revised at a midterm evaluation after which three outputs were reformulated as follows:

- 1) The technical capacity among farmers groups are strengthened through capacity development of Government technicians*
- 2) The cooperation among Government, private entrepreneurs, and seri-farmers’ groups for market exploration is established*
- 3) The capacity of DOIED to strengthen linkage among Government Agency, farmers and private entrepreneur is strengthened*

The target area was reduced from seven to five villages.

2. Project Management

A Joint Coordination Committee (JCC) was formed as the decision making body of the project management team. The project management team is composed of a counterpart team and a JICA experts’ team. An in-country advisory committee based in Japan provided necessary advice and monitored the project activities.

There were no major obstacles in the aspect of project management. However, frequent changes in the project counterpart members on the Nepalese side and relatively long absences of Project Director affected the project outcome to some extent, the delay in the approval of National Sericulture Policy being one of them.

3. Formulating National Sericulture Policy

The draft of the National Sericulture Policy was prepared in July 2009 after discussing critical issues among policy makers, sericulture administrators, representatives from sericulture farms, DADO officials, as well as private sector and NGO representatives. Even though the National Sericulture Policy was not approved yet, the Directorate of Industrial Entomology Development (DOIED) adopted some measures described in the policy draft in its 2009 budget. Those measures in the form of subsidies have proved effective in promoting private sector involvement in sericulture.

4. Sericulture Technology Transfer

The production of cocoon in Nepal has been decreasing year by year due to various reasons. The project has tried to improve the situation by publishing technical manuals and conducting cascade training. At first officers received cascade training for preparing the drafts of technical manuals. After publishing the manuals, those officers became resource persons and provided training to extension workers and silk mobilisers. Extension workers in turn facilitated technical training to seri-farmers in each group. Demonstrations on various subjects were also effective in raising awareness and reinforcing important tips on silkworm rearing.

5. Promotion of Zaguri Silk

The project decided to promote Zaguri silk production as a mean for seri-farmers to raise their income as well as an opportunity for the private sector to have a larger stake in the sericulture value chain. For this, the project invested maximum resources in capacity development on Zaguri production technology and equipment extension of especially Zaguri silk reeling machines. Besides Zaguri reeling training, trainings on weaving, Zaguri equipment repairing and ikat were also conducted.

The project created two marketing models for the project area.

In **Model 1** sericulture farmers produce cocoon as well as Zaguri silk using their own raw products. They sell the final product to the private sector. This model is implemented in Nalang and Salang villages.

In **Model 2** seri-farmers produce cocoon and sell it to private reelers, who in turn sell Zaguri silk to other private enterprises which produce final products. One such example is the Adhikari family in Bhaireni village.

In order to promote these two models, the project repeated interaction meetings among the government, private sector and seri-farmers. In total 18 interaction meetings were conducted. Ultimately, the Nalang's Zaguri group linked to the Women Guidance

Association while the Salang group teamed up with Mahaguthi. Mr. Adhikari's Zaguri unit linked to Everest Art Paper.

A workshop on the promotion of Zaguri silk held in June 2010 further contributed to improved awareness. Throughout the project period various activities such as training, workshop and interaction meetings were organized. DOIED contributed to promoting the involvement of private sector in the sericulture industry.

In the area of product development, three companies, being Association for Craft Producers, Mahaguthi and WGA, actively participated to create Zaguri items. These products are still on trial but their prospects look positive.

6. Institutional Development of Sericulture Farmers Organisations

The Government's sericulture offices have limited human and financial resources; their staff lack knowledge and skills in the area of institutional development of farmers groups. The project was designed to outsource the task of institutional development of sericulture farmers groups to an NGO. The plan was very reasonable in terms of the size of the project and limited resources on the Government side.

The project contracted Integrated Community Development Campaign (ICDC), based in Dhadingbesi, Dhading District. ICDC completed almost all the planned activities. The positive effects of those activities were noted in the spider-web evaluation and acted to increase the confidence level of sericulture farmers groups.

One issue which the project was unable to accomplish was full capacity development of extension workers of the project's counterpart. Human resource development of extension workers should be conducted through maximum interaction with the farmers groups and commute to the community as frequently as possible. This will help them understand the dynamism of the group and what kinds of approaches are beneficial for the farmers. The project believes that it is a prerequisite for the Nepalese Government to allocate resources for extension workers to visit the community and equip them with the required skills and knowledge.

7. Five models proposed by the project

The project proposed five models, all of which were implemented during the project period:

1. **Cascading trainings** - The project used cascading training models to create technical manuals. The way to develop technical manuals was taught to officers so that they can produce similar publications using the same method in the future. The

project strongly recommends DOIED to continue cascading training every year within their capacity and revise the manuals whenever necessary.

2. **Zugari silk marketing** - In this model, there are two options. Seri-farmers, in order to increase their income, develop their skills and upgrade themselves to become Zaguri silk producers. Strong coordination among the Government office, seri-farmers and the private sector is crucial. This type of models can be seen in Nalang and Salang villages.

Another type of Zaguri silk marketing, seri-farmers focus on cocoon producers. In this model private reelers play an important role to link seri-farmers and private companies which produce final products. This model can be observed in Bhaireni village

3. **Private sector in Zaguri silk product development** - In this model, creating entrustment between the Government and private sector is crucial. Otherwise mutual communication is not possible. The Project succeeded to stage such an entrustment and some private sector successfully sent out some new products into both international and domestic market.
4. **Monitoring** - Various formats useful for monitoring were produced. Especially the Inspection Notebook proved useful to grasp the rearing situation of seri-farmers.
5. **Statistical data collection** - Collecting sericulture related statistics is crucial for the sericulture administration to understand the trend and changes in sericulture activities. DOIED is advised to conduct data collection periodically using the statistical data formats developed during the project.

8. Conclusions and recommendations

In the final evaluation, when the project activities were reviewed using the Project Design Matrix, it was revealed that most targets were achieved. However, cocoon productivity per box of 20kg has not been achieved while capacity development of extension workers in terms of institutional development was not fully accomplished.

Main achievements:

1. Development of sericulture promotion policies by drafting National Sericulture Policy and Action Plan
2. Production of six technical manuals and implementation of training using cascading method
3. Zaguri silk product development and sales by four private entrepreneurs

4. Production of Zaguri silk by seri-farmer groups in Nalang and Salang and seri-farmer entrepreneurs in Bhaireni as well as sales to private sector
5. Capacity development of extension workers on facilitation skills through training and on the job training
6. Establishment groups and cooperatives of sericulture farmers
7. Production of various formats for sericulture statistics and surveys as well as analysis of collected data

Main recommendations:

1. The Nepalese government (as in the Ministry of Agriculture and Cooperatives) is advised to approve the National Sericulture Policy at the earliest.
2. DOIED is recommended to review the rearing time and frequency of silkworm rearing to increase productivity.
3. The organizational structure of sericulture administration needs to be revised. The establishment of a Sericulture Research Centre is required. Under an effective organizational structure, the capacity of technicians should be developed. Minimum requirements such as daily allowances, as well as required knowledge and skills should be set by the government.
4. Incubation management should be improved since it affects hatching percentages as well as uniform growth of silkworm and productivity in general.¹
5. DOIED is advised to devote more effort to post-cocoon activities especially promotion of Zaguri silk production. For that purpose, it may need to link with other agencies such as the Chamber of Commerce and Ministry of Industry.
6. Maintenance of data collection for sericulture related statistics is recommended to be managed by DOIED. The Department is also expected to issue a more accurate annual review of sericulture in Nepal.

¹ *The fourth conclusion has not been mentioned in the final evaluation but added here as an important issue*

ABBREVIATIONS

ACP	Association for Craft Producers
CA	Chief Advisor
CRC	Community Rearing Centre
DOA	Department of Agriculture
DDC	District Development Committee
DOIED	Directorate of Industrial Entomology Development
EAP	Everest Art Paper
GoN	Government of Nepal
ICDC	Integrated Community Development Campaign
ID	Institutional Development
JCC	Joint Coordination Committee
JFY	Japanese Fiscal Year (April to March)
JICA	Japan International Cooperation Agency
JT	Junior Technician
JTA	Junior Technical Assistant
KJ	Kawakita Jiro
MoAC	Ministry of Agriculture and Cooperatives
NGO	Non-Government Organization
NPC	National Planning Commission
NRS	Nepalese Rupee
OJT	On-the-Job Training
PDM	Project Design Matrix
PO	Plan of Operation
PQCPPP	Promotion of Quality Cocoon Production and Processing Project
PSS-CRC	Parental Stock Seed Cocoon Resource Centre, Dhunibesi
RCC	Regional Coordination Committee
R/D	Record of Discussions
SAN	Silk Association in Nepal
SDD	Sericulture Development Division
SM	Silk Mobiliser
TADA	Travel Allowance & Daily Allowance
VDC	Village Development Committee
WGA	Women Guidance Association

**Promotion of Quality Cocoon Production and Processing Project
Project (PQCPPP) in Nepal
Project Completion Report, November 2011**

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CHAPTER 1: OVERVIEW

The Promotion of Quality Cocoon Production and Processing Project (hereafter referred to as PQCPPP) was completed in November 2011. This Completion Report outlines the objectives, processes, achievements and lessons learnt from the five year experience of the Project.

1-1 Background

Nepal is an agricultural nation with 65% of the Nepalese population engaging in agriculture and agricultural production, occupying 40% of GDP. The vast land of Nepal is occupied with hilly area and the most of land has been cultivated. Considering the country's diversified geography and climates, the production of value added cash crops such as sericulture, horticulture, tea, etc. is crucial to the country's development.

Sericulture in Nepal has a relatively short history. It has been thirty years since sericulture was introduced in Nepal and it still struggles to compete at the international market. The lack of progress becomes clear if we compare sericulture in Nepal with that in Gunma prefecture, Japan. In Nepal, mulberry land per household is one third, cocoon production per hectore one fourth, and cocoon production per household one fourteenth of that in Japan. The quality of silk falls in the category A or less in Nepal whereas it is graded as 4A in Japan and 2A-4A in India. This means that Nepalese silk is not meeting the demand of the international market.

The main reason for lower production and lower quality of cocoon is that appropriate technologies such as controlling temperature in silkworm rearing rooms, avoiding silkworm disease, providing mulberry leaves, montage and selection of cocoon before grading have not been applied by sericulture farmers. The delay in introducing these technologies is caused by the lack of technicians and extension workers to promote these interventions and help establishing facilities such as a Community Rearing Centre.

As shown in table 1.1, Japan International Cooperation Agency (JICA) has promoted sericulture since the 1990s. In 1995, JICA dispatched a short-term expert to conduct a survey on the possibilities of sericulture development in Nepal. After that, during the period 1995-1999, JICA has continuously been sending long-term experts. In the period December 1999-November 2002 JICA implemented a mini Project while in the period February 2003-January 2006 JICA dispatched a follow-up expert.

The Nepalese Government in the recent past has played a major role in the extension of

sericulture from technical assistance to sericulture farmers to the purchase of cocoon, drying and rearing into raw silk. The Ministry of Agriculture and Cooperatives made significant progress in equipping sericulture farms in various locations in the country, introducing rearing machines, maintaining the race of silkworm seeds, promoting regular and stable production and supplying silkworm seeds introduced from Japan. However, the produced cocoon remained low in quality. Furthermore, due to low quality and high production costs, the raw silk produced from cocoon at the government plant could not compete internationally. This in contrary to silk produced in neighbouring countries like China and India. The government was unable to market its raw silk and as a result started to run in the red in 2006.

Table 1.1 shows the history of sericulture development in Nepal specifically representing the Nepalese Government Policy, the issues Nepalese sericulture/silk industry are facing, cooperation by Japan, and cooperation by other countries.

In response to these challenges, the Government of Nepal requested JICA to provide technical cooperation in improving the quality of cocoon and silk products in the market and promoting private sector's involvement into the sericulture. The overall goal of this project would be to increase the income of sericulture farmers. In response to the request, JICA dispatched a preliminary study team. On 30th November 2006, the Ministry of Agriculture and Cooperatives and JICA signed a Record of Discussion (R/D) describing the framework for implementing the Project. The Promotion of Quality Cocoon Production and Processing Project commenced on 1st December 2006 and terminated on 30th November 2011 after completion its 5-year implementation period.

Table 1.1: History of Sericulture Development in Nepal (Source: Consultation Mission Report, February 2009, JICA)

Year	Nepal Government Policies	Issues in Sericulture and Silk Industry in Nepal	Cooperation of Japan	Cooperation of Other Countries
1969			A survey on possibilities of sericulture development was conducted by section officer of Department of Sericulture, the Ministry of Agriculture, Forestry and Fisheries.	
1976	Establishment of Khopasi Station (SDD)		Nepalese counterpart, Mr. Kafle, returned to Nepal after completing training in sericulture station in Kanagawa prefecture.	[South Korea] Donation of 6 sets of multi end machine, 12,000 plants of mulberry sapling (Ichinose), dispatch of experts and acceptance of sort-term trainees, grant provision of silkworm seeds for 1976-1999
1985	Establishment of Syanjya SDO			
1993	Establishment of Bhandara SDO			
1994	Establishment of Dhankuta SDO			
1995	In the Agriculture Perspective Plan (1995-2015) promulgated by the MOAC, sericulture as a measure to improve quality of life of farmers living middle hilly area is mentioned.		★ JICA dispatched Short-term experts (Mr. Tsuzuku, Mr. Washida) Implementation of survey on possibilities of sericulture development. <i>The survey proved that Nepalese climate and geography is suitable for mulberry cultivation and bi-voltine silkworm rearing and Japanese contribution would contribute to income generation of farmers in middle hilly regions and improvement of women status in farming villages by introducing Japanese sericulture technology</i>	[South Korea] 1994-1996 Construction of Itahari sericulture development office, grants incubation room, CRC, drying facility, office building, mulberry garden and 14 sets of multi-end reeling machine
	Establishment of Itahari, Bhandipur, Pokhara and Dhunibesi SDO	Preparation of mulberry garden in the new Sericulture Development Offices	★ JICA dispatched Long-term expert (Mr. Tsuzuku) <i>Promoted sericulture through instructing Japanese "New Sericulture" technologies instead of Indian sericulture technologies by equipping facilities to DOIED and sericulture farms that are required for demonstration</i>	
1996	To fix the long term sericulture prospective plan	Setting up high long term goal		
1997	Promotion of sericulture is mentioned in the 9 th Five Year Plan (1997-2002) as a measure to reduce poverty in middle hilly region.	Increasing cocoon production		[UNDP] 1997-2001 Sericulture for Rural Development Program (SRDP) Capacity development of sericulture farmers with cooperation of NGO (establishing mulberry garden, mulberry plantation, self harvesting method, young silkworm rearing, adult silkworm rearing, etc.). Involved NGOs are SAN, HOPE and CSDEL.
1998		Maintenance of the system to produce and distribute silkworm seeds, developing sericulture technology and its extension	★ JICA dispatched Sort-term expert (Mr. Miyazawa) <i>Introduced quantity silkworm egg production technology</i>	
1999			★ JICA mini project (Sericulture Promotion Plan) <i>Improved rearing technology of quality silkworm species and maintenance technology of the race of silkworm</i> <i>Improved production and maintenance technology of silkworm seeds and management technology of silkworm seed production unit</i> <i>Improved mulberry sapling production, management of mulberry gardens and cocoon production technology on SDD and SDO</i> <i>Improved mulberry garden management and cocoon production technology of sericulture model farmers</i>	
2000				
2001		○Cocoon production was 10 tons in 1998 whereas 33.5 tons in 2001 ○Sericulture farmers has expanded to 3,200 households		
2002				
2003			★JICA dispatched mini project follow-up expert (Mr. Kano, Ms. Nakahata) • <i>Investigation into the actual conditions on sericulture</i> • <i>Capacity development of extension workers</i> • <i>Support on development of Nepalese original silk products</i> • <i>Capacity development of sericulture NGO</i>	Support on NECOSIDA activities (established NGO To develop Nepal original silk, silk products and cocoon buy and sell with private sector purpose) Forwarding the JICA subsidy on Nepalese original silk production and selling. SAN implemented Silk Network Model Project in the Dhading district by the support of JICA
2004		Adaptation was made in terms of silkworm egg production and management technologies JICA's technical cooperation improve the level of technology of those technicians in SDD, Khopasi and other 7 SDO.		
2005		●The demand of domestic raw silk was low because of bad quality of cocoon. In terms of price and quality, Indian and Chinese silk has dominating in the silk market in Nepal. ●Weak in extension system, insufficient technical level of technicians, shallow view of officers in promotion of sericulture industry ●There is no flow of cocoon production →yarn production→making products (No Exit).	★JICA dispatched long-term expert (Mr. Kano) • Capacity development of government counterparts and extension workers, policy advice and instruction on developing sericulture promotion policy • Field work of sericulture • Seek for establishment of linkage between private sector and NGO ↓ Proposal submission for the present technical cooperation project (Sericulture promotion and extension)	
2006				

1.2 Objectives of the Project

Initially the following three outcomes were formulated in order to achieve two overall goals. The original version of the Project Design Matrix (PDM) is attached in Appendix 1. The summary is shown below in Table 1.2. This was effective until 15 June, 2009.

**Table 1.2 : Overall Goal, Project Purpose and Updated Expected Outputs of PQCPPP
Dated 29th September, 2006**

【Overall Goal】 The model for quality cocoon and silk production are replicated nationwide in Nepal. The income of seri-farmers and workers around seri-farmers is increased through the improvement.
【Project Purpose】 The quality cocoon production in target/model area is verified with capacity building and strengthening the linkage among seri-farmers groups, Government technician, NGOs, Private entrepreneurs and other stakeholders.
【Output】 1. The standardized technology for quality cocoon production, cocoon quality inspection and post cocoon harvest is established. 2. The capacity of seri-farmers, Government technicians and NGO staff for promoting quality cocoon production and cocoon quality inspection technology are strengthened. 3. The linkage among Governmental Agency, NGO and private entrepreneur are strengthened.

1.3 Revision of PDM

The Joint Mid-term Evaluation was conducted by the Government of Nepal and JICA after 2,5 years since the inception of the Project. The revision of PDM was a major issue in the mid-term evaluation. The evaluation team proposed partial revision on Project Purpose and Outputs whereas no revision was required for overall goal.

PDM and Plan of Operation (PO) were revised so that they will serve as a Project road map for the remaining 2,5 years as well as indicators for the final evaluation of the Project. The focus was especially on rearrangement of activities and clarifying and quantifying existing indicators. As a result, the PDM was revised as shown in Table 1.3: those details including activities and indicators are referred in Appendix 2.

**Table 1.3: Overall Goal, Project Purpose and Updated Expected Outputs of PQCPPP
Dated 15th June, 2009**

【Overall Goal】 The model for quality cocoon and silk production are replicated nationwide in Nepal. The income of seri-farmers and workers around seri-farmers is increased through the
--

improvement.

【Project Purpose】

The quality cocoon and silk production model is verified in the target area capacity building and strengthening of the linkage among seri-farmers groups, Government technicians, Private entrepreneurs and other stakeholders.

【Output】

1. The technical capacity among farmers groups are strengthened through capacity development of Government technicians.
2. The cooperation among Government, Private entrepreneurs, and seri-farmers' groups for market exploration is established.
3. The capacity of DOIED to strengthen linkage among Governmental Agency, farmers and Private entrepreneur is strengthened.

The term 'NGO' was deleted from the PDM because local development agencies were not the prime target for this project. Instead the project focused on service providers and a player to transfer facilitation capacity to government extension workers. In addition, the term 'Model' was inserted in order to clarify that the Project Purpose is to construct a model which can be replicated nationwide

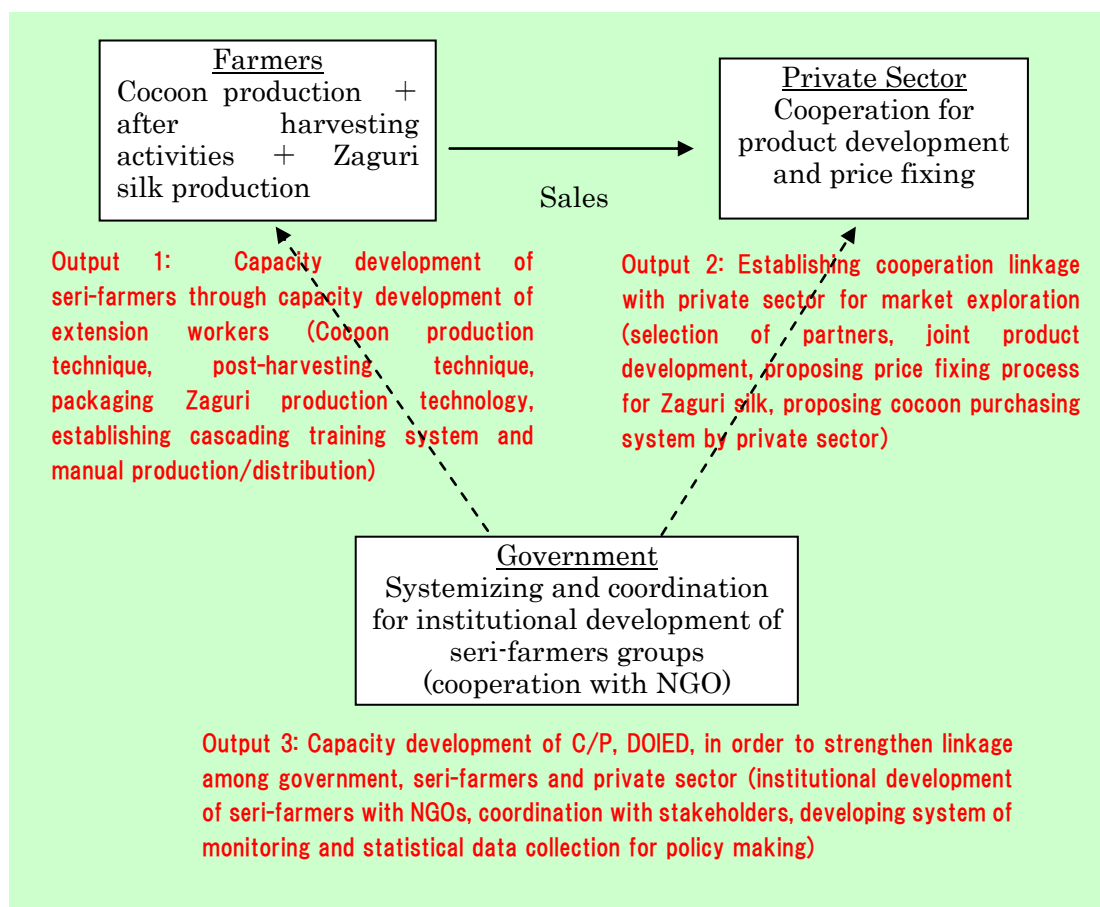
Output 1 focused on technical cooperation mainly by sericulture technical experts. The establishment of a new extension system was the primary concern in terms of technology in Output 1.

Output 2 focused on strengthening linkages among farmers, government stakeholders and private sector agents especially by experts on Product Development. The revision mainly concerned not only involvement of private sector and capacity development on this regard but also proposing an alternative model of cooperation to the existing governmental system.

Output 3 was rearranged with a focus on social development activities by NGOs. In Output 3, the target is put on capacity development of DOIED so that they will be able to implement Output 1 and 2 in sustainable manner, those activities such as feedback of social development activities by NGO, arranging monitoring and statistical data collection system, cooperating holding coordination meetings with farmers and private sector were mainly contained.

The Conceptual Framework is shown in Figure 1.1.

Figure 1.1: Conceptual framework for new PDM



(Source: Consultation Mission Report, February 2009, JICA)

The target area included 7 VDCs in the original PDM. Since the Project Purpose is to develop a model which is suitable for nationwide replication, the target areas were reduced to 5 VDCs, each of which were relatively active at that time. The Project targeted model development in Bhaireni, Salang, Nalang, Kumpur and Sankosh VDC.

Since Bhumisthan and Muralibanjyang VDC were part of the Dhunibesi Office working area and interested in sericulture, the Project continued support by inviting farmers from these areas to group trainings.

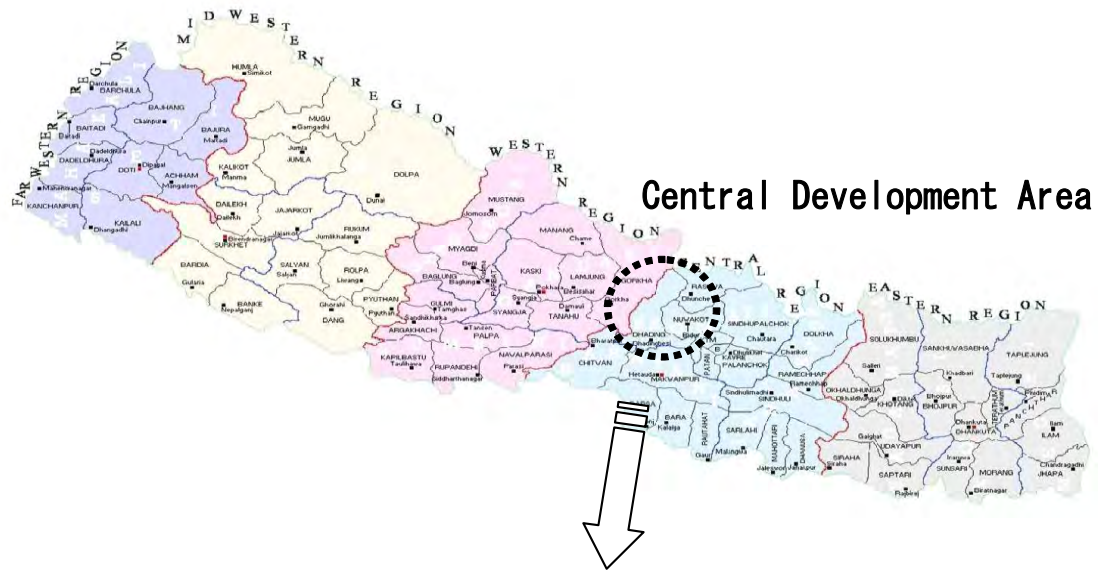
1.4 Target Area and Groups

The Project established its office in the premises of DOIED at Harihar Bhawan, Lalitpur.

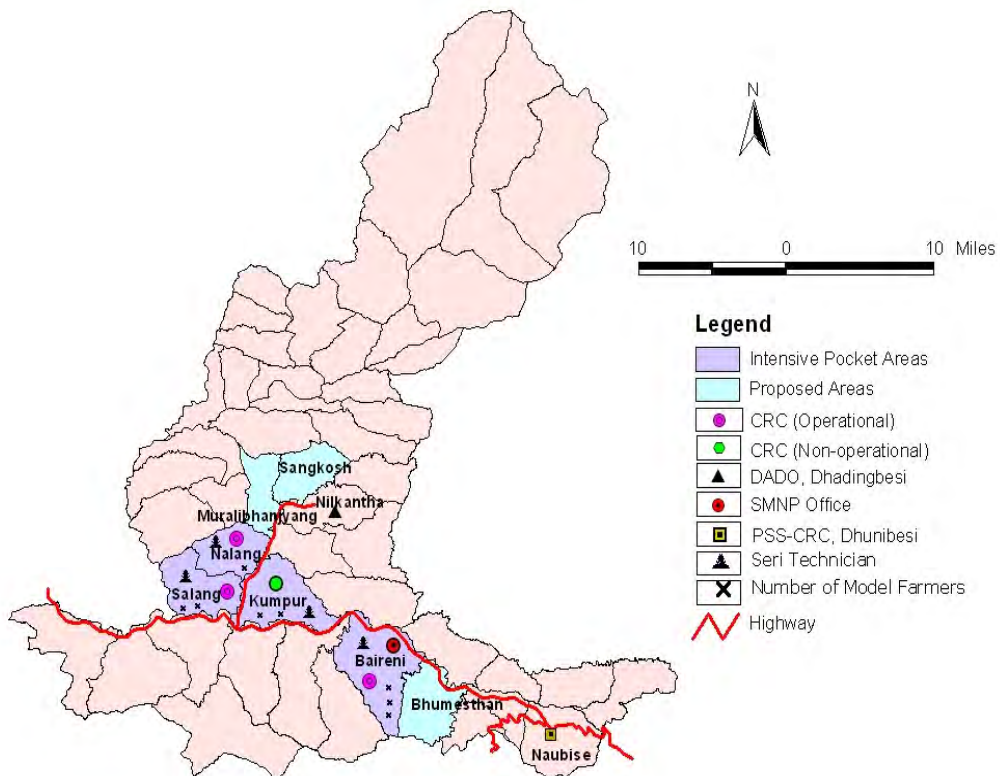
Figure 1.2: Project Area Map

(Source: Preliminary Study for PQCP, February 2008, JICA Nepal Office)

Map of Nepal



Dhading District Project Site Map



Parental Stock Seed Cocoon Resource Centre (PSS-CRC), Dhunibesi is located in Naubise VDC, Dhading. It acted as a field office of DOIED and served as a base for implementing field activities in the target area. The chief of PSS-CRC Dhunibesi was appointed as Field Coordinator of the Project and played an important role

The Project focused on the following three target groups:

- (1) Partner groups Officers and JT/JTAs based at DOIED headquarters, Dhunibesi farm and Kopasi farm. The partner groups do not act as counterparts but invited for technical training and workshops.
- (2) Direct target group Officers and JT/JTAs of DOIED. About 10 staff are appointed as counterparts of the Project.
- (3) Indirect target group Sericulture farmers in the targeted area

1.5 Major Activities

The major activities of PQCPP were (1) publishing sericulture technical manuals, (2) implementing technical training in cascading manner, (3) proposing appropriate systems on cocoon/silk marketing and cocoon grading, (4) support direct purchase of cocoon and silk and product development by private sector, (5) capacity development of extension workers through institutional development of sericulture farmer groups in cooperation with NGO, and (6) developing statistical data collection and monitoring systems.

The major activity flow is presented in Figure 1.3.

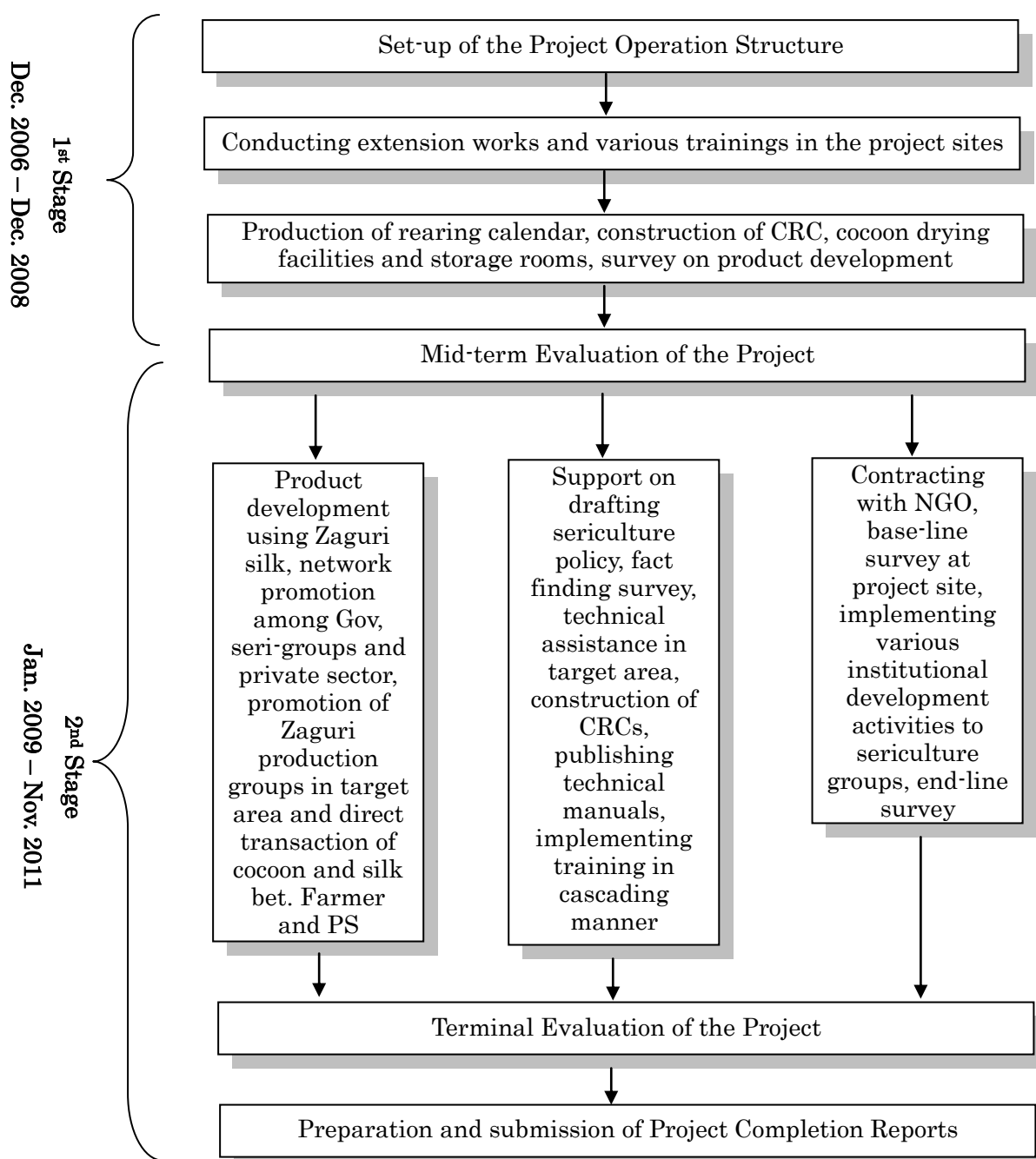
The details of each activity are described in Chapter 3.6. The actual implementation schedule per year and activity is elaborated in Appendix 3.

The 1st stage of the Project took place from December 2006 to December 2008. In this preparatory stage JICA expert in Sericulture Promotion Policy, Mr. Shimizu, was dispatched. The difficulties faced during the first stage were caused by a lack of man power on the Japanese side. As a result, many planned activities could not implemented, including Baseline survey, contracting with NGO, drafting sericulture policy, format development of statistics, etc. JICA Nepal realised its shortcomings and revised the dispatch structure of JICA experts. The changes were reflected in the revised PDM at the mid-term evaluation.

The 2nd stage took place from January 2009 to November 2011 and focused on the implementation of various activities in the area of human resources development, technical publication development. It also focused on new system development including the completion stage for the terminal evaluation.

Increased manpower accelerated the delayed activities of the Project during 3rd and 4th year, resulting in satisfactory outcomes as formulated in the termination evaluation.

Figure 1.3: Major Activities of PQCPPP



(Source: prepared by PQCPPP)

Table 1.4: Major Activities of PQCPPP described in the PDM

Expected Outputs	Major Activities
1.The technical capacity among farmers groups is strengthened through capacity development of Government technicians.	1-1 To standardize technology and methodology for farmers for production of cocoon, post-harvesting and Zaguri silk production and compile as manuals 1-2 To conduct trainings to Government technicians, silk mobilisers and farmers groups in Cascade Method as OJT

<p>2. The cooperation among Government, Private entrepreneurs, and seri-farmers' groups for market exploration is established.</p>	<p>2-1 To propose a distribution system suitable for current situation of market and private sector based on value chain survey</p> <p>2-2 To propose cocoon inspection system to grade a cocoon equally by its genuine quality</p> <p>2-3 To design the method for intervention of private entrepreneurs and support DOIED to introduce direct procurement of cocoon by Private entrepreneurs as a trial</p> <p>2-4 To provide support for Private entrepreneurs producing product using Zaguri silk</p>
<p>3. The capacity of DOIED to strengthen linkage among Governmental Agency, farmers and Private entrepreneur is strengthened.</p>	<p>3-1 To develop facilitation capacity among Government technicians through organising farmers</p> <p>3-2 To hold periodical meetings (Triangular, RCC, JCC) for the coordination and problem solving among farmers, Government, and private entrepreneurs</p> <p>3-3 To develop appropriate monitoring system and statistics</p>

1.6 Achievement of Expected Outputs

Through the five year implementation of the Project, most expected outputs of the updated PDM were achieved. The performance of the indicators related to expected outputs are shown in Table 1.4.

Table 1.5: Achievements of the Expected Outputs of PQCPPP

Expected Outputs	Indicators from the Updated PDM	Performance and Achievement Status
<p>【Output 1】 The technical capacity among farmers groups are strengthened through capacity development of Government technicians.</p>	<p>1-1 Distribution of five technical manuals</p>	<p>-5 technical manuals and 1 rearing calendar published →</p>
	<p>1-2 The retention (20% increase in monitoring score) of technique among seri-farmers</p>	<p>-The rate of adoption of major sericulture techniques slightly increased from 56.3% to 61.6% in Nalang, Salang and Bhaireni village. Use of disinfection and compost reached 100% and 98.9% respectively, while the ratio of cementing rearing room and that of using chemical fertiliser remains at 13% and 10% respectively. →The indicator was partially fulfilled.</p>
	<p>1-3 The retention (30% increase on last score in trainings) of technique and facilitation skills among</p>	<p>-Trainings for JT/JTAs were conducted three times. -49% improvement was observed in the pre-test and post-test.</p>

	Government technicians	→The indicator was fulfilled.
<p>【Output 2】 The cooperation among Government, Private entrepreneurs, and seri-farmers' groups for market exploration is established.</p>	2-1 Introduction of fair grading system by Government	<ul style="list-style-type: none"> -Technical manual on cocoon grading was published -Trainings for JT/JTA/SM were conducted. -The cocoon/silk price fixing committee was established involving DOA, DOIED, SAN, PS, seri-farmers <p>→ The indicator was fulfilled.</p>
	2-2 More than 3 private entrepreneurs involved in Zaguri product development	<ul style="list-style-type: none"> -ACP, Mahaguthi, Kala Guthi, and WGA have taken part in Zaguri silk product development. <p>→The indicator was fulfilled.</p>
	2-3 Intensity of linkage among Government, Private entrepreneurs and seri-farmers groups (more than 4 firms of meetings/activities in the final year)	<ul style="list-style-type: none"> -Interaction meetings were held 18 times among Government, PS and seri-farmers. -Workshop for promotion of Zaguri silk was held. <p>→The indicator was fulfilled.</p>
<p>【Output 3】 The capacity of DOIED to strengthen linkage among Governmental Agency, farmers and private entrepreneurs is strengthened.</p>	3-1 Improvement in performance of seri-farmers groups	<ul style="list-style-type: none"> -In regard with groups in Nalang and Salang, revitalisation through Zaguri production and formalising as cooperatives was successful. -All sericulture farmers belong to groups and actively utilise micro loans. -Some improvements in managing group fund are observed. <p>→ The indicator was fulfilled.</p>
	3-2 Improvement of Government in activities if farmer groups and Private entrepreneurs (12 visits/yr to farmers groups, 3 visits/yr to private sector)	<ul style="list-style-type: none"> -The frequency of visits by JT/JTA to sericulture farmers was 5.6 times in Nalang, 14.4 times in Salang and 5.6 times in Bhaireni. Only Salang exceeded the target. However, JT/JTAs visited several times for other purposes. If these visits are included, the frequency will exceed the target. -The frequency of visits by SM was 9.6, 34 and 13.6 times in Nalang, Salang and Bhaireni respectively. -The visits of private sector representatives significantly exceeded the target. (18 times) <p>→ The indicator was fulfilled.</p>
	3-3 Introduction of new monitoring system and statistics	<ul style="list-style-type: none"> -Discussions identified the necessary data and collection procedure. Developing formats was done and data collection started. -C/P set up a desk which deals with statistical data. -Other data collection and survey were conducted.

		→ The indicator was fulfilled.
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(Source: The Joint Terminal Evaluation Report on PQCPPP, 4th July 2011, JICA)

The reports and documents produced by PQCPPP are as listed in Table 1.6.

Table 1.6: List of the Documents Produced by PQCPPP

No.	Title	Month-Year of Publication	Publisher	Language
1	The 1 st Summary Report of Technical Cooperation Project Implementation	May 2007	PQCPPP	Japanese
2	The 2 nd Summary Report of Technical Cooperation Project Implementation	November 2007	PQCPPP	Japanese
3	A Report on Survey Visit to India	April 2008	PQCPPP	English
4	The 3 rd Summary Report of Technical Cooperation Project Implementation	June 2008	PQCPPP	Japanese
5	The 4 th Summary Report of Technical Cooperation Project Implementation	November 2008	PQCPPP	Japanese
6	Household Survey Report of Seri-farmers of Salang, Nalang and Bhaireni VDC, Dhading	February 2009	PQCPPP	English
7	A Final Report on Household Survey and present ID/OS status of Seri-farmers in Dhading	March 2009	PQCPPP	English
8	National Sericulture Policy 2009	June 2009	PQCPPP	English/ Nepali
9	The 5 th Summary Report of Technical Cooperation Project Implementation	June 2009	PQCPPP	Japanese
10	The 6 th Summary Report of Technical Cooperation Project Implementation	December 2009	PQCPPP	Japanese/ English
11	A Study on Value Chain Related to Silk Production and Industry	December 2009	PQCPPP	英語
12	Report on Monitoring on ID of sericulture groups under PQCPPP by joint monitoring team on 9-11 February, 2010	February 2010	PQCPPP	英語
13	The 7 th Summary Report of Technical Cooperation Project Implementation	July 2010	PQCPPP	Japanese / English
14	Report of Workshop on Promotion of Zaguri Silk in Nepal, 22 July, 2010	July 2010	PQCPPP	English
15	The 8 th Summary Report of Technical Cooperation Project Implementation	December 2010	PQCPPP	Japanese/ English
16	The 9 th Summary Report of Technical Cooperation Project Implementation	July 2011	PQCPPP	Japanese/ English
17	Project Completion Report	November 2011	PQCPPP	Japanese/ English

Note - Reports produced by JICA experts are not included in this table.

(Source: PQCPPP)

CHAPTER 2: PROJECT MANAGEMENT

2.1 Operation Structure

The Joint Coordination Committee (JCC) was formed as the decision making body of the project management. Under the JCC, the project team was position. The project team composed of government counterpart, JICA experts, silk mobilisers and other project employees implemented the project in cooperation with partner NGO and private sector. JICA had set up in-country advisory committee in Japan and it provided supplementary support for the Project. The operation structure is shown in Figure 2.1.

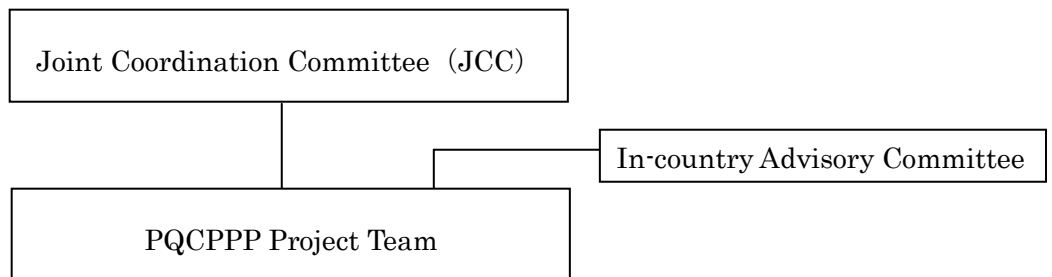


Figure 2.1: Operation Structure of PQCPPP

2.2 Joint Coordination Committee (JCC)

The JCC was chaired by the Director General or Deputy Director General of the Department of Agriculture. The JCC team consisted of the following members:

- (1) Director General or Deputy Director General of DOA
- (2) Counterpart of PQCPPP (Programme Director of DOIED, Sericulture Senior Officer of DOIED, Chief of PSS-CRC Dhunbesi and Chief of Kopasi SDD)
- (3) Officers of related sections in MoAC and DOA
- (4) Representatives from JICA Nepal
- (5) JICA Project Team

JCC's responsibilities were:

- 1) To formulate the Annual Work Plan in line with the Plan of Operation
- 2) To review the overall progress of the technical cooperation activities
- 3) To discuss measures taken by the Project
- 4) To review measures taken by the Government of Nepal
- 5) To exchange views on major issues arising from or in connection with the Project
- 6) To provide the Project with necessary advice

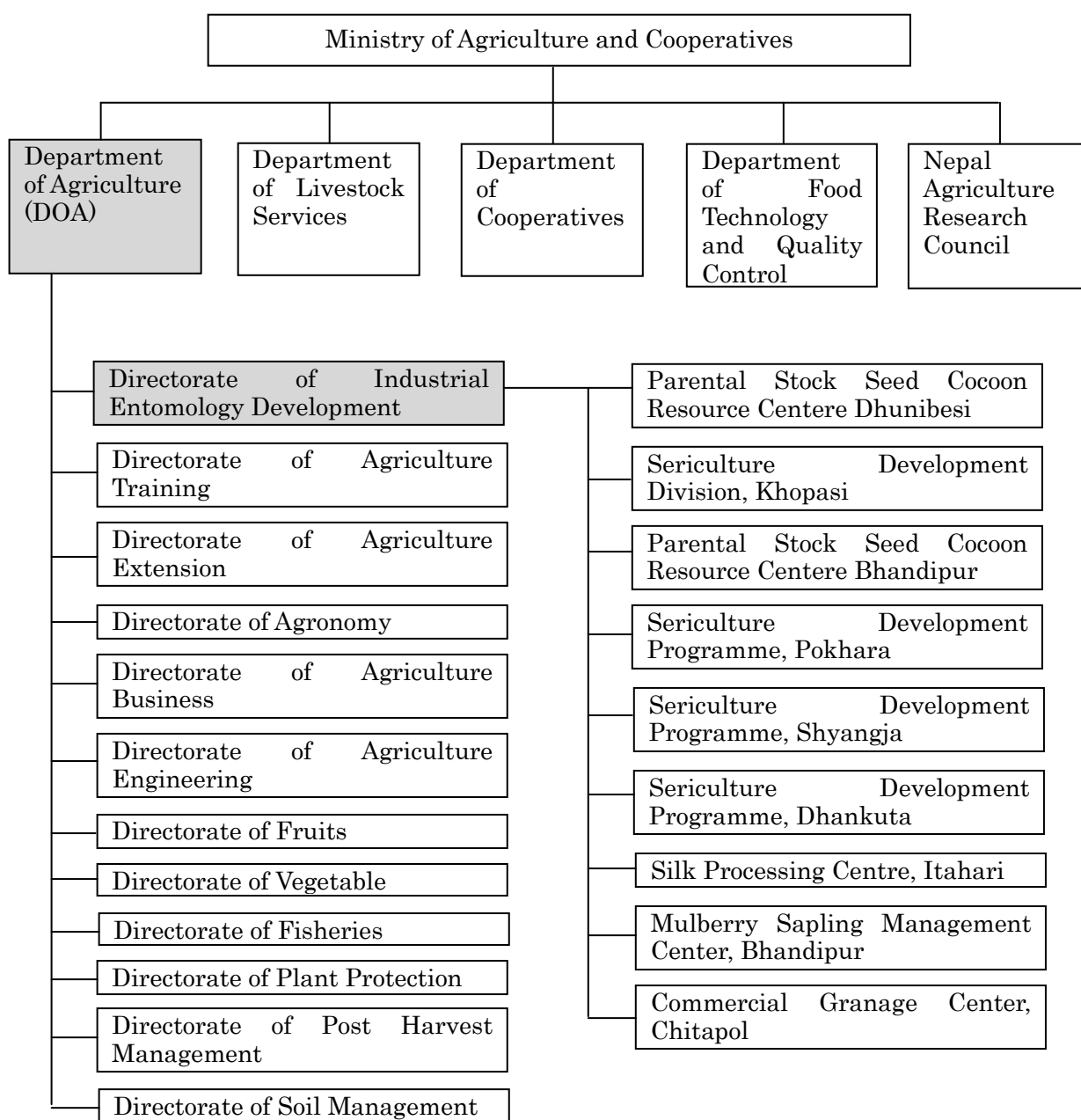
In JCC meetings, the Project presented progress reports while the members discussed

issues raised and forthcoming activities. In addition, the JCC held a meeting on the occasion of the Mid-term Evaluation and the Terminal Evaluation. The JCC meetings were held 8 times during the Project period. The meeting list is attached in Appendix 5.

2.3 Project Counterparts

The direct counterpart agent was the Directorate of Industrial Entomology Development, Department of Agriculture, Ministry of Agriculture and Cooperatives. The structure of DOA is shown in Figure 2.2.

Figure 2.2: Organisational Structure of DOA and DOIED



(Source: Annual Progress Report, DOA, 2008/2009)

The Counterpart Team of PQCPPP was composed of four members: Project Director (Program Director of DOIED), Project Manager (Senior Sericulture Officer of DOIED), Project Officer (Officer of DOIED) and Field Coordinator (Chief of PSS-CRC).

As elaborated in Table 2.1, the Project Director was replaced five times in the five-year project period while four different Directors served the post. Since these changes happened abruptly, no handover was conducted. It should be noted that during a considerable amount of time the responsibilities of the Project Director were handled by the Deputy Director. Officially the Project Director joined the post for 34 months. Of these, in his absence, during 26 months (June 2007 – January 2009, April – June 2009, and March – May 2010), the position was handled by the Deputy Director.

Table 2.1: Counterpart Team of PQCPPP

Post in PQCPPP	Post in DOIED	Period						
		Dec.2006-May 2007	June 2007-Jan2009	Jan. 2009-March 2009	April 2009-June 2009	Jul. 2009-Feb. 2010	March 2010-May 2010	June 2010-Nov. 2011
Project Director	Programme Director	Badri Bisal Karmacharya	Absence	Badri Bisal Karmacharya	Absence	Yubak Dhoj G.C.	Absence	Jagadish Bhakta Shrestha
Deputy Project Director	Deputy Chief		Jagadish Bhakta Shrestha		Durga Prasad Duwadi		Durga Prasad Duwadi	
Project Manager	Deputy Chief	Jagadish Bhakta Shrestha	Jagadish Bhakta Shrestha	Jagadish Bhakta Shrestha	Durga Prasad Duwadi	Durga Prasad Duwadi	Durga Prasad Duwadi	Durga Prasad Duwadi
Project Officer	Officer	Keshav Raj Kafle	Keshav Raj Kafle	Keshav Raj Kafle	Keshav Raj Kafle	Bandana Jha	Bandana Jha	Madhu Sudan Ghimire
Field Coordinator	Chief of Dhunibesi Office	Madhu Sudan Ghimire	Madhu Sudan Ghimire	Madhu Sudan Ghimire	Madhu Sudan Ghimire	Madhu Sudan Ghimire	Madhu Sudan Ghimire	Raj Narayan Singh

(Source : PQCPPP)

2.4 In-country Advisory Committee

In 2008, JICA concluded that an advisory mechanism was necessary for the Project and decided to set up an In-country Advisory Committee. The committee members are listed in Table 2.2. The In-country Advisory Committee met 12 times at JICA HQs throughout the

remaining Project period.

Table 2.2: Member structure of In-country Advisory Committee

	Affiliation	Name
Chairperson	Dainippon Silk Foundation	Dr. Hiroaki Yanagawa till Dec. 2008
	National Institute of Agrobiological Sciences	Dr. Makoto Kiuchi till Jan. 2009
Extension	Dainippon Silk Foundation	Mr. Keigo Kojima
Market and Product Development	National Institute of Agrobiological Sciences	Dr. Chiyuki Takabayashi
Farmers Organisation	Gunma Prefectural Office	Mr. Jusaku Kano

(Source: Prepared by PQCPPP)

The In-country Advisory Committee members took part in consultation study teams and provided professional advice to the Project and JICA. The missions in which the In-country Advisory Committee members participated are listed in Table 2.3.

Table 2.3: List of missions joined by members of In-Country Advisory Committee

	Mission Name	Time	Title	Name of Member
1	Consultation Study Team Mission	May 2008	Sericulture Administration	Dr. Hiroaki Yanagawa
2	Consultation Study Team Mission	Nov 2008	Sericulture Administration	Dr. Hiroaki Yanagawa
3	Mid-term Evaluation Mission	June 2009	Sericulture Promotion	Dr. Makoto Kiuchi
4	Consultation Study Team Mission	March 2010	Sericulture Extension Market Development/ Product Development	Mr. Keigo Kojima Dr. Chiyuki Takabayashi
5	Terminal Evaluation Mission	June 2011	Sericulture Promotion	Dr. Makoto Kiuchi

(Source: Prepared by PQCPPP)

2.5 PQCPPP Project Team

The PQCPPP Project Team consisted out of 6 members who were responsible for the management and implementation of the Project. In the following overview posts existing only during the first half of the Project are also included:

- Chief Advisor: Mr. Osamu Shimizu (December 2006 – November 2008), Dr. Hiroaki Yanagawa (January 2009 – November 2011)

- Project Coordinator/ Farmers' Organisation : Ms. Yuko Shibuya (January 2009 – November 2011)
- Short-term Expert on Textile Product Development : Ms. Eriko Kawaguchi (June 2008 – July 2011)
- Short-term Expert on Sericulture Extension: Mr. Akio Yamaguchi (October 2009 – September 2011)
- Project Officer : Mr. Raghu Shrestha (April 2009 – November 2011)
- Coordinator: Mr. Ramesh Amatya (July 2007 – February 2009)
- Interpreter cum Coordinator : Mr. Raghu Shrestha (December 2006 – March 2009)
- Project Assistant : Ms. Lalita Waiba (April 2009 – October 2009), Ms. Saraswati Thapa (January 2010 – September 2011)

The actual assignment periods of the Japanese experts are summarised in Table 2.4. The assignment performance schedule of the entire Project period is shown in Appendix 4.

Table 2.4: Actual Assignment of JICA Experts (Person-Months)

Name of Expert	2007*	2008	2009	2010	2011	Total
Chief Advisor	13	12	6	4.5	3.8	29.3
PC/Farmer Organisation			12	12	11	35
Textile Product Dev.		3	4.5	4.5	1.5	13.5
Sericulture Extension			1.5	4.5	4.1	10.1

*Figure in 2007 includes the month of December 2006

(Source: Prepared by PQCPPP)

2.6 Office Facilities and Equipment

The project office of PQCPPP was set up on the ground floor of the DOIED building at Harihar Bhawan, Lalitpur. The equipment was purchased and installed at the project office, counterpart office, sericulture groups and private sector's office. The list of equipment purchased through the JICA Project budget is shown in Table 2.5.

Table 2.5: List of Equipment Purchased through JICA Project Budget

	Item	Specification	Qty	Delivery date	Location	Utilisation & Management Condition
1	Pickup Truck	Mahindra	1	31 March, 2007	Project office	Good
2	Gas Heater	Chinese	1	20 Dec, 2006	Project office	Good
3	Fax Machine	Canon	1	25 Dec, 2006	Project office	Good
4	Printer MF8180	Canon MF8180	1	28 Dec, 2006	Project office	Good
5	Laptop Computer	HP	2	25 Jan, 2007	Project office	Good
6	Windows XP Office	Microsoft	1	22 Feb, 2007	Project office	Good
7	Nokia Mobile Phone	Nokia	1	28 Feb, 2007	Project Staff	Good
8	Nokia Mobile Phone	Nokia	1	5 March, 2007	DOIED	Good
9	Nokia Mobile Phone	Nokia	1	7 Feb, 2007	Project Staff	Good
10	LCD Projector	Panasonic	1	19 March, 2007	Project office	Good
11	80GB Hard disk	Chinese	1	20 March, 2007	Project office	Good
12	2GB Pen drive	Chinese	1	21 March, 2007	Project office	Good
13	Windows XP Office	Microsoft	1	5 Aug, 2007	Project office	Good
14	Laptop Computer	Acer	1	14 May, 2007	DOIED	Good
15	Digital Camera	Nikon	1	14 May, 2007	DOIED	Good
16	Laptop Computer 160GB	Acer	1	7 Jan, 2007	Project Office	Good
17	Digital Camera	Sony	1	8 Sept, 2007	Project Office	Loss by Bhandara
18	Digital Camera	Sony	1	28 Sept, 2007	PSSCRC,Dhunibesi	Good
19	Wireless Router	TP Link	1	20 Aug, 2007	Project office	Good
20	Electric Weight Balance	Indian	1	25 March, 2008	PSSCRC,Dhunibesi	Good
21	Digital camera	Olympus	1	6 April, 2008	SDD Khopasi	Good
22	ADSL TP Link Router	TP Link	1	16 June, 2008	Project office	Good
23	Laptop Computer	Toshiba	1	18 Jan, 2009	Project Office	Good

24	Voltage Regulator	SVC	2	28 Jan, 2009	Project Office	Good
25	Desk top Computer	Samsung etc.	4	20 Feb, 2009	DOIED, Khopasi	Good
26	Inkjet Multi Function Printer	Brother	2	20 Feb, 2009	DOIED, Khopasi	Good
27	Digital Camera DSC W110	Sony	2	3 Feb, 2009	DOIED, Khopasi	Good
28	Generator	Yamaha	1	6 March, 2009	Project Office	Good
29	Windows XP Office	Microsoft	1	9 March, 2009	Project Office	Good
30	Motorcycle Honda Splendor	Honda	1	16 March, 2009	PSSCRC, Dhunibesi	Good
31	Digital video camera +30GB card	Sony	1	20 March, 2009	Project Office	Good
32	Power Spray	Indian	8	3 March, 2010	Farmers group	Some good some broken
33	Electronic Digital Balance	Germany	1	18 Jan, 2010	SDD, Khopasi	Good
34	Rewinding Machine	S&R Trader	2	5 March, 2010	Kala Guthi	out of order
35	Laptop Computer	NEC	1	18 Jan, 2010	PSSCRC, Dhunibesi	Good
36	Wheel type winding equipment	Japanese	1set	7 July, 2010	Private sector	Good
37	Ikat binding Stand	Japanese	2	7 July, 2010	Private sector	Good
38	Wooden bobin	Japanese	5	7 July, 2010	Kala Guthi, Dhunibesi	Good
39	Hand Loom Small	Local Made	1	March 2010	Salang group	Good
40	Zaguri Equipments	Local Made	78	various time	Govt, PS, FG	Some good some broken
41	Zaguri Stand	Local Made	67	various time	Govt, PS, FG	Good
42	Metal Stove Cover	Local Made	76	various time	Govt, PS, FG	Good
43	Stove	Local Made	30	various time	Govt, PS, FG	Good
44	Cocoon Cooking pan	Local Made	31	various time	Govt, PS, FG	Good
45	Gas Stove	Local Made	2	Dec 2008	Kalaguthi, Dhunibesi	Good
46	Hand Twisting Machine	Local Made	1	March 2010	Bhaireni group	Good
47	Plastic Collapsible Mountage Net	India Made	1000	5 April.2010	Khopasi, Dhunibesi	Good
48	Plastic Rearing Tray	India Made	200	5 April, 2010	Khopasi, Dhunibesi	Good

49	Incubation Frame	India Made	500	14May, 2010	Khopasi	Good
50	Electronic Digital Balance	Indian	2	5 April, 2010	PSSCRC, Dhunibesi	Good
51	Metal Rewinding Machine	Local Made	2	March 2010	Nalang, Salang	Good

(Source: Prepared by PQCPPP)

2.7 Annual Project Expenditure

The PQCPPP project has been implemented in the Fiscal Years 2006 to 2011. The actual expenditure totalled 36,696,809 Nepalese Rupees, as shown in Table 2.6.

Table 2.6: Actual Expenditure

	JFY2006 ²	JFY2007	JFY2008	JFY2009	JFY2010	JFY2011
Actual	Nrs5,324,884	Nrs.5,922,933	Nrs.6354,181	Nrs.10,212,432	Nrs.6,308,879	Nrs.2,573,500

(Source : Prepared by PQCPPP)

2.8 Baseline Survey, Endline Survey, Mid-term Review and Project Final Evaluation

In the third year of the project, a Baseline Survey was implemented in order to identify the real situation of sericulture farmers. Two years later, an Endline survey was conducted using a similar questionnaire. These two surveys were outsourced to the partner NGO, Integrated Community Development Campaign (ICDC) of Dhading District. The findings out of these surveys were useful in terms of understanding the changes in the social economical status of sericulture farmers.

In the Endline Survey, the sericulture farmers covered in the Baseline Survey were targeted in order to find out how many continued or left sericulture and how many sericulture technologies had been adopted. It should be noted that 55% of sericulture farmers who were engaging in sericulture at the point of the Baseline Survey had left sericulture as of February 2011. However, most of these farmers have continued group activities including monthly meeting and saving activities.

The findings and data collected in the Baseline Survey and Endline Survey were compiled in reports, distributed to stakeholders and utilised in the Project's Mid-term and Terminal Evaluations.

The mid-term evaluation was conducted on 8th to 15th in June 2009. Five members took part from MOAC and DOA in the Nepalese side. The following four member participated from the Japanese side. The revision of PDM was the major mandate for the mid-term

² Japanese Fiscal Year

review.

Table 2-7 : The list of Joint Evaluation Team for Project Mid-term Review

No.	Name	Area	Affiliation
The Japanese Side			
1	Mr. Kozo Ito	Team Leader	Director, Paddy Field Based Farming Area Division III Paddy Field Based Area Group, Department of Rural Development, JICA
2	Dr. Makoto Kiuchi	Sericulture Promotion	Director, Division of Insect Sciences, National Institute of Agrobiological Sciences
3	Mr. Yasuaki Momita	Program Officer	Representative, Nepal Office, JICA
4	Mr. Hiroyuki Doi	Evaluation Analysis	Independent Consultant
The Nepalese Side			
1	Mr. Ram Krishna Shreshta	Coordinator	Senior Agricultural Officer, Monitoring and Evaluation Division, Ministry of Agriculture and Cooperatives
2	Dr. Haribabu Tiwari	Team Member	Senior Agricultural Economist, Agri-business Promotion and Statistics Division, MOAC
3	Ms. Sabnam Shivakoti	Team Member	Agricultural Economist, Planning Division, MOAC
4	Mr. Prakash Bista	Team Member	Agriculture Extension Officer, Planning Section, DOA
5	Mr. Rajendra Koirala	Team Member	Agricultural Economist, Monitoring and Evaluation Section, DOA

(Source: PQCPPP Mid-term Review Report, JICA)

The final evaluation of the Project was conducted from 19 June 2011 to 4 July 2011 with the following evaluation members.

Table 2-8 : The list of Joint Evaluation Team for Project Final Evaluation

No.	Name	Area	Affiliation
The Japanese Side			
1	Mr. Toru Take	Team Leader	Senior Representative, JICA Nepal Office
2	Dr. Makoto Kiuchi	Sericulture Promotion	Director, Division of Insect Sciences, National Institute of Agrobiological Sciences
3	Mr. Tomohiro Arima	Program Officer	Representative, JICA Nepal Office
4	Mr. Atau Kishinami	Evaluation Analysis	Consultant, International Development Associates, Ltd.
The Nepalese Side			
1	Ms. Uma Maiya	Team Leader	Senior Agricultural Economist,

			Department of Agriculture
2	Mr. Bhoj Raj Sapkota	Team Member	Agricultural Economist, Monitoring and Evaluation Division, MOAC

(Source : PQCPPP The Final Evaluation Report)

Though such a circumstance that cocoon production has been decreasing year by year should be improved, most of the indicators were achieved and expected models was proposed.

2.9 Actions towards Recommendation made on the Terminal Evaluation

Two points to be done during project period were recommended and eight points were recommended to be done both during project period and after the project period. Major follow up actions and progress which were made for the following three points are mentioned below:

✦ Baseline data collection

One of indicators for overall goal is “Increase in income of seri-farmer (50%) and Zaguri manufacturers (20%) from cocoon production in the target area”. In order to verify the progress on this, baseline data was necessary. The project collected data of seri-farmers in 2009 and 2011 from household survey and recompiled the result in an English report. From the view on average farmer income, it was revealed that income has not been increased but seri-farmers who produce Zaguri silk increased their income in comparison of data in 2009 and 2011.

✦ Utilizing Zaguri machines

After the final evaluation, the Dhunibesi office organized two Zaguri basic trainings utilizing their and Kalaguthi’s Zaguri machines in October and November and twenty one farmers learnt the basic skills in Zaguri silk production. If the cocoon required for Zaguri training is secured, similar training can be conducted upon the request from private sector.

✦ Dispatch silk promotion volunteer

During the final evaluation, possibility of dispatching silk promotion volunteer from JICA was discussed. Then the project and JICA have examined which organization would be the best for this. We approached Silk Association of Nepal (SAN), Federation of Handicraft Associations of Nepal and Fair Trade Group and we found it was difficult to put volunteer under the current circumstance that cocoon production has significantly been decreasing from 21ton in 2009 to 17ton in 2010 and the Project does hesitate to invite more private companies to enter the value chain of Zaguri silk due to the decrease of cocoon availability. Therefore, it should be necessary for JICA Nepal Office to reconsider the possibility of dispatching a volunteer specialized in Silk Promotion.

2-10 Major External Conditions

Since the inception of the Project in 2006, Nepal has seen major political developments, including a people's uprising, abolition of the royal regime, free elections and various multi party governments. It was an eventful time politically speaking and marked a transitional period in terms of administration. Frequent personnel transfer among senior officers and changing policies negatively affected the progress of the Project. The unstable political situation brought frequent general strikes (bandhas). Additionally, increased load-shedding, fuel shortage and water shortage troubled the Project from time to time. Major external conditions are as follows:

- ✓ The priority of sericulture downgraded from 1 to 3 during the budget allocation for 2009/10. As a result, the annual budget of DOIED decreased significantly in comparison with the budgets of previous year. During the budget allocation for 2010/11, the priority of sericulture has been upgraded to 1 but decreased again to priority 2 during the budgeting of 2011/12.
- ✓ Due to decreased government investment, reeling activities at Itahari farm were completed stopped while silk spinning and production of Zaguri silk was also disturbed.
- ✓ The Project Counterpart Members changed very frequently. During the 5-year project period, the absence of Project Director summed up to 34 months, affecting the implementation and impact of the Project.

CHAPTER 3: FORMULATING NATIONAL SERICULTURE POLICY

3.1 Approval of Sericulture Policy

Ever since its consultation Study mission, conducted in 2008. JICA expressed concerns regarding the absence of a National Sericulture Strategy in Nepal. After the dispatch of the new Chief Advisor in January 2009, several meetings were held to discuss the issue among high level officials of DOIED.

A major requirement for drafting a sericulture policy was the clarification of Nepal's strategy for developing sericulture industry including the development of silk products. The Chief Advisor of PQCPPP also emphasised the involvement of the private sector in the sericulture industry, until then managed solely by the government. In order to attract the private sector, three conditions has to be in place: firstly the production volume had to be sufficient, secondly the policy measures to promote private sector involvement had to be in place, and thirdly the smooth transaction of cocoon and raw silk production from government to private sector had to be facilitated. At the initial stage of discussions on a sericulture policy, the Project proposed the following issues for the counterpart to clarify:

- (1) To clarify the rationale for a sericulture policy
 - (1)-1 To clarify the role of sericulture industry in agriculture
 - (1)-2 To clarify the advantages of promoting sericulture in terms of land use and poverty alleviation
- (2) To clarify required numerical targets for promoting sericulture in the form of 3-year Action Plan
- (3) To clarify ripple effects of sericulture promotion, for example, improvement of farmers' income, nurturing private entrepreneurs, improvement of women status and expansion of employment.
- (4) To clarify technical indicators such as cocoon productivity per box, ratio of good quality cocoon, shell ratio, etc.
- (5) Maintaining and strengthening organisations
 - (5)-1 Measures institutional development of DOIED
 - (5)-2 Maintaining testing and research systems and creating new position of researchers
 - (5)-3 Maintaining a sericulture technical center
 - (5)-4 Training sericulture technical staff
- (6) Supporting measures to introduce private sector's vitality
 - (6)-1 Measures to enable private sector involvement in cocoon transaction, Zaguri silk production and Zaguri silk transaction
 - (6)-2 Supporting measures for Zaguri silk product development, its production and its sales by private sector

- (6)-3 Supporting measures for NGO and sericulture related organisations
- (7) To review official rate calculation methods of cocoon and silk
- (8) To revise laws and regulations required for the new sericulture development policy
- (9) To allocate a budget for the implementation of the new Sericulture Development Policy
- (10) To maintain statistical data on sericulture

During a meeting held in February 2009, Mr. Badri Bishal Karmacharya, the then Director of PQCPPP, and Mr. Bhakta Raj Palike, the then Kopasi SDD Chief, presented their clarifications on the issues raised by JICA. This marked the beginning of specific discussions on a sericulture policy. In the same month, DOIED representative, Mr. Ganesh Kumar K.C., the appointed consultant for drafting sericulture policy, JICA Nepal Office and PQCPPP members agreed to the main content of sericulture policy.

Consequently a workshop for formulating a National Sericulture Policy was held on 24-25 May, 2009. The workshop program is attached in Appendix 6 and participants' list in Appendix 7. On the first day, in the presence of 65 participants, Mr. Ganesh Kumar K.C. gave a keynote speech in which he proposed his version of the policy. On the second day, 55 participants, including government officers, private sector, sericulture farmers, NGO, and other stakeholders took part in lively group discussions on the proposed policy. Afterward, the content of workshop was used to formulate the National Sericulture Policy 2009. The content of the policy are as follows:

- (1) Background of sericulture in Nepal
- (2) Requirements and potential of promoting of sericulture
- (3) The current situation of sericulture promotion
- (4) Obstacles to the development of sericulture
- (5) The target of sericulture promotion
- (6) Promotion strategy of sericulture
- (7) The priority area of sericulture promotion
- (8) Promotion policy of sericulture
- (9) Training policy of sericulture farmers
- (10) International development
- (11) Human resource development
- (12) Roles and networking of private sector, the government and NGOs
- (13) Development and harmonisation
- (14) Research and development
- (15) Effective subsidy policy and its management
- (16) Revision of sericulture laws and regulations

3.2 Formulation of National Sericulture Policy

After some revisions of the sericulture policy drafted at the workshop in May 2009, DOIED submitted the National Sericulture Policy to MoAC shortly. However, as of November 2011 or two years after submission, the policy draft is still under consideration. After the approval by MoAC, the National Sericulture Policy is yet to be approved by the National Planning Commission and Ministry of Finance. Therefore there is no clear prospect on when the policy will become effective.

In order to embody the contents of the National Sericulture Policy, DOIED on August 20-21 2009, organised a workshop concerned with a long term vision and plan for sericulture in Nepal. The workshop clarified the contents and directions on how to promote sericulture based on the policy draft. In addition, the workshop was effective in terms of strengthening the position of DOIED and appealing to MoAC and DoA by proposing a future activity plan.

Furthermore, DOIED, on November 8-9, 2009, organised the workshop “Coordination with private sector involvement in post cocoon”. Approximately 30 representatives from the private sector participated in the workshop, as well as representatives from DoA, DOIED, PQCPPP, NGO and sericulture farmers.

During the workshop the private sector demanded the increase of cocoon production, improvement of the quality of cocoon and a supporting government policy. Silk Association of Nepal (SAN) presented its views on sericulture promotion, information sharing of cocoon and raw silk production and transaction by the government, and supporting measures for sericulture farmers by the government. JICA’s Chief Advisor explained the project activities and stressed the importance of linkage between the government and private sector for the production of Zaguri silk and silk product development. Most of the issues discussed in the workshop overlapped the issues mentioned in the Sericulture Policy Workshop, but the opinions and demands made by private sector engaged in silk industry were more specific and worth to be reviewed by DOIED.

After instructions from DOA, DOIED in March 2010 prepared a 3-year Action Plan aiming at implementing activities mentioned in the National Sericulture Policy. In the Action Plan, DOIED prepares to increase mulberry area from 350 ha to 670 ha, sericulture farmers from 1,300 households to 2,700 households, cocoon production from 40 ton to 90 ton, seed production from 400 boxes to 10,000 boxes, and cocoon purchasing companies from 3 to 20 businesses in three years. However, the targets are relatively high and no specific measures or budget allocations are described to achieve these targets.

Promotion of private firms’ involvement in Zaguri silk production and silk transaction are a part of the Sericulture Policy and the 3-year Action Plan. DOIED in February 2009 changed its stance so that private sector can purchase cocoon and Zaguri silk from the

government and sericulture farmers directly. The direct transaction commenced in July 2009. DOIED also introduced new subsidy policies in order to promote transaction of cocoon and Zaguri silk among the private sector. In addition, it started collecting information on stock of dry cocoon and Zaguri silk at related sericulture farms and arranged a desk to deal with inquiries from private sector on stocks.

As mentioned above, the government, private sector and sericulture farmers agreed upon the basic directions of sericulture policies in regards with sericulture promotion and involvement of private sector into sericulture business as a part of project activities. However, it is necessary for the Nepalese government to clarify where sericulture promotion stands in terms of effective policy since the draft National Sericulture Policy is yet to be approved by MoAC

CHAPTER 4: SERICULTURE TECHNOLOGY TRANSFER

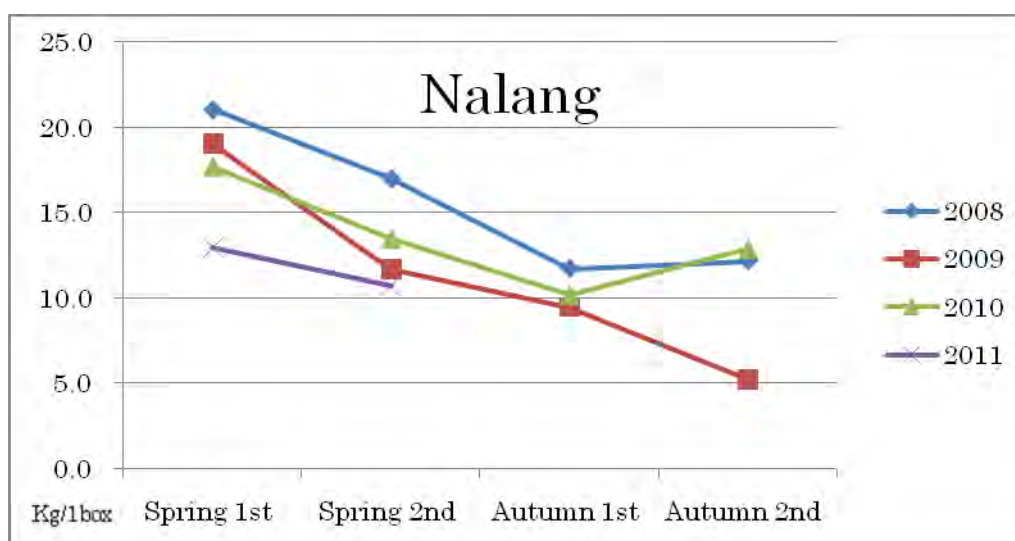
Sericulture technology transfer consisted of the production of technical manuals, cascading training implementation by officers to JT/JTA/SM, JT/JTA/SM and sericulture farmers, technical demonstrations, etc.

4.1 Current Situation of Sericulture

Currently in the project target area the average rearing records are 89.3% in normal cocoon ratio, 22.6% of shell ratio, and 90% in hatching percentage. The record of the past three years exceeded the project target. In terms of cocoon yield per box, the record could not achieve the target with averages of 14.6 kg in 2008, 12.7 kg in 2009 and 14.0 kg in 2010. However, some villages exceeded the set target of yield per box. For example, Bhaireni recorded 22.7 kg while Nalang recorded 21.0 kg in the spring first season of 2008. Salang recorded 21.8 kg in 2009 spring 2nd and Nalang produced 23.6 kg in 2011 Spring 1st.

Figure 4.1 indicates the trend of average yield per box of Nalang village during the past four years (2008-2011). The figure shows that there is a decreasing trend in yields, with the yield in spring 1st season being the best and the yield in autumn 2nd being the worst. The trend of decreasing records in autumn 2nd also occurs in other villages. It is the result of the short interval in series of silkworm rearing from spring to autumn, low temperatures during maturing period, etc. Therefore, it is necessary to rethink the setting of rearing time.

Figure 4.1: Average yield per box as per season and year



4.2 Preparation and Production of Technical Manuals

The production of sericulture technical manuals was aimed at technology transfer

especially to extension workers, silk mobilisers and sericulture farmers. In total six kinds of manuals were published:

1. Silkworm Rearing Calendar
2. Illustrated Technical Manual on Silkworm Rearing Technology
3. Illustrated Technical Manual on Mulberry Cultivation Technology
4. Illustrated Technical Manual on Cocoon Assessment
5. Technical Manual on Silkworm Disease Management
6. Silk Production

In order to produce silkworm rearing and mulberry cultivation technical manuals, the sericulture officers from all the farms were invited for training. The content of the manuals were discussed by the participants using the KJ method. The Silkworm Rearing Calendar was compiled by Mr. Osamu Shimizu and Mr. Bhakta Raj Palikhe, the then Kopasi SDD Chief. The manual on silk production was compiled by Ms. Eriko Kawaguchi. The cocoon assessment manual was mainly written by Mr. Bhakta Raj Palikhe while the disease management manual was written by Mr. Akio Yamaguchi and Mr. Palikhe. The rearing calendar is produced in Nepalese language while the other manuals are in both Nepalese and English.

4.3 Sericulture Technical Training

The Project conducted sericulture technical training using the cascading method. The training details can be found in Appendix 8.

(1) Officer Training

The Officer Training aimed at the preparation of technical manuals as mentioned above. Officers from the different sericulture farms were invited for two-day training. The participants discussed major technologies introduced in technical manuals produced by the JICA sericulture project in India and adopted them to the Nepalese context.

The first training focused on silkworm rearing technologies and the second one focused on mulberry cultivation technologies. The issues discussed in the training were compiled in two manuals.

(2) JT/JTA Training by Officers

Cascading trainings by officers to JT/JTAs were conducted five times. The contents of the trainings were as follows:

1. Late age silkworm rearing and mounting technology for JT/JTAs in Kopasi Office
2. Seed cocoon production and protection technology for JT/JTAs in all farms
3. Silkworm rearing technology for JT/JTAs of Kopasi, Dhunibesi and Chitapol farms

4. Mulberry cultivation technology for JT/JTAs of Kopasi, Dhunibesi and Chitapol farms
5. Silkworm rearing, mulberry cultivation, cocoon grading and silkworm disease controlling technologies for JT/JTAs at Dhunibesi, Kopasi, and Chitapol farms.

Apart from lectures on the contents of the manuals, the trainers used practical sessions in which JT/JTAs learned how to use a disinfection pump and how to calculate cocoon price. The project evaluated the understanding of training contents by conducting tests before and after training sessions. The test results of three trainings showed an average of 49% improvement.

(3) Silk Mobiliser Training by Officers

These trainings were conducted twice along with JT/JTAs training. The first one focused on silkworm rearing technology while the second covered mulberry cultivation technology, cocoon grading technology and silkworm disease control technology. Pre and post training test showed a 137% improvement on average.

(4) Sericulture Farmer Training by JT/JTA

Besides regular trainings conducted by the Dhunibesi Office, JT/JTAs conducted 22 trainings at each sericulture group. Among them, one third of the trainings focused on the silkworm rearing manual and the rest on mulberry cultivation, cocoon grading and disease control technology manual. A summary of farmer level trainings conducted during the project period can be found in Appendix 9.

4.4 Demonstration

As can be seen in Appendix 9, twelve demonstrations were conducted by JT/JTAs with the aim to transfer technology to silk mobilisers and sericulture farmers. Disinfection is a requirement for controlling silkworm diseases. Disinfection demonstrations using sanitech were conducted twice, using formalin twice, disinfection of CRC once, and total disinfection demonstrations were carried out five times. Demonstration on third instar of silkworm rearing was done once, the same at 4-5th instar once, while demonstrations on mounting technology were conducted twice. Another demonstration focused on how to run a cocoon drying facility constructed by the project. Additionally, in order to further promote silkworm disease control, 20 kg lime was provided to each household in 2010. A demonstration on how to apply lime effectively to rearing house/room was conducted for silk mobilisers.

During the demonstrations, informative handouts prepared by experts were handed out to the farmers.

4.5 Study Tour

In order to further promote technology transfer, one study tour was conducted for sericulture group members of Sankosh VDC to Nalang VDC. About 15 farmer from Sankosh VDC and about 45 farmers from Nalang took part in the technology exchange.

CHAPTER 5: PROMOTION OF ZAGURI SILK

Cocoon produced in Nepal used to be send to the Itahari-based government sericulture farm where it was reeled into raw silk. However, the production efficiency and the quality of raw silk could not compete with Chinese raw silk, which dominates the world silk market in terms of volume, quality and price. The Sericulture Extension Follow-up Project implemented during 2003-2006 launched product development support of Nepalese original silk to improve the country's position in the world market. As a first step, a Joshu Zaguri silk reeling machine was imported from Gunma prefecture while product development using Zaguri silk was launched. The current project aimed at stabilising production of cocoon and Zaguri silk by promoting private sector involvement and strengthening linkages between private sector and sericulture farmers. The detailed approach and activities implemented are described below.

5.1 Introducing Zaguri Silk Reeling Technique

In order to promote Zaguri silk production, six kinds of trainings were conducted 23 times. The training details are listed in Appendix 8.

(1) Zaguri Reeling Trainers' Training

This training was conducted to develop one government officer as a Zaguri reeling trainer. The project selected training to a female JTA of Dhunibesi farm. The basic training was conducted for one and a half month in 2009 while follow up training was held for one month in 2010 at Kala Guthi (NGO). Introducing a series of production process from reeling Zaguri silk to making textile out of Zaguri silk yarn, the training aimed to build Nepal's expertise in Zaguri silk production. Most Zaguri reeling trainings were implemented by the JTA as an instructor.

(2) Zaguri Reeling Basic Training

The main target group of the basic reeling training consisted out of farmers and employees from the private sector. Trainings for farmers were conducted at the Dhunibesi farm while training for private sector took place at Kala Guthi. Each training was conducted four times. In order to facilitate networking between farmers and the private sector, farmers were intentionally included in the training for business representatives. The project considered the demand by DOIED and accepted some producers from Pokhara, Bandhara, Syanjya and Bhandipur sericulture farms besides participants from the project target area.

(3) Zaguri Reeling Advance Training

Participants who completed the Zaguri reeling basic training, were offered Zaguri reeling advance trainings as a refresher training. Like the basic training, it targeted both farmers

and private sector. The training was conducted twice at Dhunibesi farm and twice at Kala Guthi. The contents focused on master reeling techniques according to thickness of yarn. The thickness of yarn was determined by the number of cocoon per reeling or four kinds with 50, 100, 150 and 200 cocoons. During the last training for private sector representatives, twisting by manual twisting machine was included in the training programme.

(4) Refresher Zaguri Reeling Training at village level

After implementing the basic and advance training of reeling, the Project conducted refresher training on Zaguri reeling at selected villages. The training aimed at creating an environment to commence Zaguri silk production immediately after securing a reeling place, required equipments and fuel. The project conducted two such training for Nalang, one for Salang, and one for Bhaireni village. The second training in Nalang was outsourced to Women Guidance Association (WGA). The five-day training included spinning techniques. It was a useful occasion to strengthen linkages between Nalang producers and WGA, the latter being successful in product development using Zaguri and spun silk.

(5) Weaving training using Zaguri silk

This training had two objectives. The first objective was to increase producers' understanding of the quality of Zaguri silk required for producing textiles by exposing farmers interested in Zaguri silk production to weaving using Zaguri silk. The second objective was to increase expertise in weaving techniques using Zaguri silk for both vertical and horizontal threads. This training targeted businesses that already developed Zaguri silk products. In addition, participants were taught that different kinds of equipment are needed in silk weaving compared to cotton and wool weaving. Two such trainings were held for farmers while one such training was organised for private sector employees.

(6) Zaguri Equipment Repairing Training

This training was implemented to train carpenters in Nalang, Salang and Bhaireni in repairing Zaguri reeling machines. The participants included an officer from Dhunibesi office in charge of maintaining Zaguri machines. The training was held for two days and focused on understanding the structure and functioning of the Zaguri reeling machine. Practical sessions were also included.

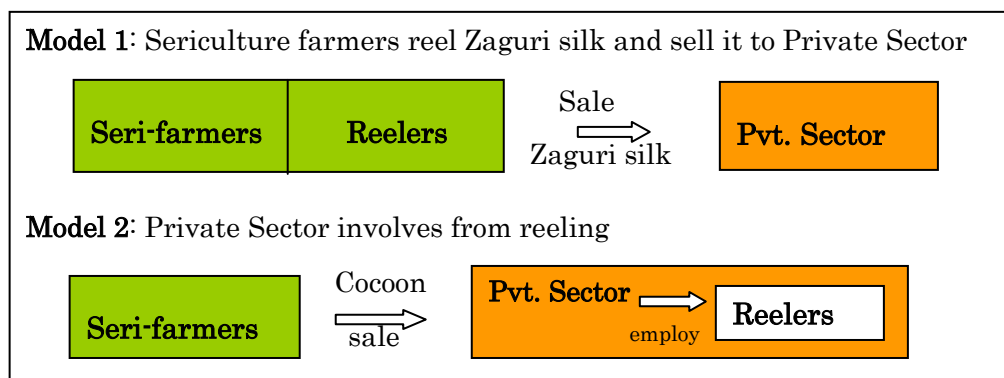
Through the trainings, a technical basis was established for supporting Zaguri silk production.

5.2 Establishing and Strengthening Zaguri Silk Production System

Zaguri silk production and supply used to be handled by two government farms at Itahari

and Kopasi. However, in 2009 the government announced its gradual withdrawal from silk production, instead promoting private sector involvement. As a result, the Project constructed two marketing models aiming at cocoon and silk market with private sector involvement.

Figure 5.1: Two Marketing Models



Model 1 is a system in which sericulture farmers produce cocoon and Zaguri silk using their own cocoon and sell it to private sector. This model was applied in Nalang and Salang. Model 2 is aims at nurturing entrepreneurs by establishing small cottage industry by a sericulture farmer. This model was implemented by the Adhikari family in Bhaireni. This family was selected after a 2009 survey on sericulture farmers in the project target area found that Mr. Adhikari used to be involved in silk reeling in the past.

In order to establish Model 1, the following three requirements were to be fulfilled:

- ① Linkage between private sector and sericulture farmers
- ② Drying cocoon at villages
- ③ Motivated Zaguri silk production group

In regard with linkages, the Project promoted connections through repeated interaction meetings involving private sector, seri-farmers and DOIED staff. In total 18 interaction meetings were held, as shown in Appendix 10. Ultimately the Project focused on linking one private sector to one village, for example linkages between WGA and Nalang village and Mahaguthi and Salang village.

Concerning the drying of cocoon, the Project, through a JICA expert and Kopasi staff, conducted demonstrations of operational cocoon drying facilities and cocoon storage house. Salang village started using its drying facility from 2010 spring 1st while Nalang village started from 2010 autumn 1st.

Regarding the creation of motivated groups, the Project formed special Zaguri silk production groups. The groups were provided with 50 kg of dried cocoon for village based Zaguri training, enabling them to secure some fund by selling Zaguri silk to private sector.

After fulfilling the requirements two Zaguri producers' groups based in Nalang and Salang started production of Zaguri silk and sales of silk to private sector.

The setting up of a small scale industry in Bhaireni village progressed with the cooperation of Everest Art Paper (EAP). EAP equipped the Adhikari family with expertise on the establishment of a Zaguri reeling workshop. With EAP as the sole buyer of their products, the Adhikari family developed favourably.

With the support of government subsidies, Adhikari's Zaguri workshop was equipped with improved reeling machines, solar water heating facility and solar cocoon drying facility. The Project provided an additional Zaguri reeling machine, spinning machine and twisting machine. Lately, the productivity of Zaguri silk has improved up to 160 kg per month. The Adhikari family turned their workshop into a Silk Processing & Resource Centre. Apart from producing Zaguri and spun silk, the family aims to be involved in silk product development after introducing a weaving machine.

5.3 Linkage among Government, Private Sector and Sericulture Farmers

(1) The Government subsidies

DOIED, in the National Sericulture Policy 2009, proposed some measures to promote private sector investment in sericulture. The measures are: 1) promoting direct purchase of cocoon from seri-farmers by private sector, 2) increasing income by supporting sericulture entrepreneurs and cottage industry, and 3) strengthening cooperatives and entrepreneurs to increase the number of reelers at village level.

The Department also proposed to strengthen expertise in silk and silk products by establishing sericulture entrepreneurs and cottage industry at the village level and to lessen the dependency on imported silk. Although the policy draft has not been approved officially, DOIED has introduced some of the proposed subsidy measures since the Nepalese fiscal year 2009/10.

As a result, the government has been providing subsidies of Nrs.150 per kg of Zaguri silk and Nrs.19³ per kg of raw silk purchased directly from seri-farmers. In regards with purchasing Zaguri silk reeling equipments, a 50% subsidy is provided per machine. The government provided Nrs.70,000 for purchasing solar water heating facility and solar cocoon drying facility as well as Nrs.50,000 for improved reeling machines at the Adhikari Zaguri production centre.

The subsidy measures continued in FY 2010/11, DOIED increased the subsidy for purchasing green cocoon directly from farmers from Nrs.19 to Nrs.20. These subsidies were

³ This amount includes cocoon transportation and drying cost

effective in terms of motivating sericulture farmers to dry cocoon and produce Zaguri silk by themselves. As a result, the strengthening of the Zaguri production system progressed.

(2) Organising interaction meetings and workshops

Linkages between private sector and sericulture farmers were encouraged by organising regular meetings and visits by private sector to target village. A total of 18 interaction meetings were organised. Interactive visits were organised 5 times at Bhaireni village, 4 times at Dhunibesi office, 4 times in Salang village, 3 times in Nalang village, once at a private company and once at DOIED.

In order to further promote private sector involvement, DOIED organised a workshop on Coordination with Private Sector Involvement on Post Cocoon in November 2009. During the gathering various issues were discussed among government and private sector participants.

The Project organised a workshop on Promotion of Zaguri Silk in June 2010 with participation of the major three parties: government, private sector and sericulture farmers. In the workshop, DOIED announced the government's stance on promoting Zaguri silk production described in Model 1 (see Figure 5.1) and encouraged the private sector to participate in Zaguri silk production.

5.4 Product development

The Projects, while promoting Zaguri silk product development, decided to keep private sector at the centre of its activities. In order to select feasible private companies, an expert on product development visited various companies. The Project did not advertise for suitable companies as it wanted to promote a two-way approach in which companies would actively step forward.

Selection criteria

- Being capable of production and sales
- Having overseas markets
- Being equipped with weaving and dyeing facilities
- Having a sense of attachment to Nepalese raw materials
- Being interested in Nepalese silk

Among 24 companies, 17 met the above mentioned criteria. However, most of them failed to design final products using Zaguri silk. As a result, only a few companies followed up with product development activities. Among these were a number of member of Nepal's Fair Trade Group. They consider the benefits Zaguri silk to be: 1) it is an authentic Nepalese product, 2) it generates income for people in remote areas and 3) it has the potential to become a main income source for women.

In August 2008 the project selected partner companies and made their commitment public by issuing an official letter. After that the Project started product development in collaboration with the private sector. Initially the following three companies were involved: Association for Craft Producers (ACP), Mahaguthi and Asia Trading. However, Asia Trading left the partnership in January 2009. After that, Kala Guthi, a textile training institution and already linked to the project through Zaguri training, joined the coordination group.

Initially, awareness on silk was promoted among those in charge of product development at the partner companies. In the next phase the Project proceeded to exchange ideas on the kinds of products to be produced and available markets and consumer trends. Those meetings were mainly carried out in the presence of the Director of partner companies.

ACP, in coordination with Kirtipur weavers, produced several weaving items such as stole, luncheon mat, etc. ACP applied a new winding tool in Kirtipur, copied from the Japanese winding tool, which greatly improved the weavers' conditions. ACP formed a producer group in Lubhu and encouraged them to re-start production of crochet shawl using vegetable dyed Zaguri silk. Mahaguthi initially produced trial products such as Zaguri silk stole and cushion covers and increased the sales of the degummed simple stole. Kala Guthi offered woven shawls and stoles using 100% Zaguri silk for sale at its gallery. The organisation received an order of 50 stoles to act as a memorial gift.

The Project encouraged the process by sharing information on Zaguri silk, by providing technical guidance on dyeing and weaving and by providing Zaguri silk for product development. The Project also provided Zaguri silk to other companies which showed interest in developing new products. In total the project provided 10.5 kg to ACP, 8.2 kg to Mahaguthi, 5 kg to Kala Guthi, 2.5 kg to Asia Trading, 0.3 kg to Pashimina Nepal, 0.2 kg to Lubhu Crochet Group and 0.2 kg to New Sadle. A total of 27 kg Zaguri silk was provided to partners as well as non-partner organisations for product development.

Post product development activities included participation in exhibitions abroad, sending samples to overseas clients, sales in domestic market through showrooms, etc.

CHAPTER 6: INSTITUTIONAL DEVELOPMENT OF SERICULTURE FARMERS ORGANISATIONS

6.1 Background

The institutional development of sericulture farmer organisations was supposed to be implemented with the cooperation of an NGO. However, there was no progress until the beginning of the third year due to the fact that the counterpart strongly resisted this. Based on the advice from the second consultation mission in November 2008, JICA Nepal Office dispatched an expert in the area of institutional development of farmer organisations and project coordination from January 2009.

6.2 Selection of NGO

For the selection of a suitable NGO, a selection committee composed of Project Manager, Field Coordinator and Project Coordinator (JICA expert) was set up. The selection took place in January and February 2009. As a Dhading based NGO was preferred, the advertising was conducted through the NGO Federation in Dhading. The following three NGOs submitted proposals:

1. Human Development & Resource Management-Nepal (HDRMAN)
2. Integrated Community Development Campaign (ICDC)
3. Prayatnashil Community Development Society (Prayas-Nepal)

The submitted proposals were analysed taking the following into account: 1. date of establishment of the NGO, 2. past experience with government and donors, 3. experience in community and social development, especially institutional development, 4. experience in sericulture and agriculture, 5. experience in community mediation, 6. experiences with JICA, 7. adequacy of proposed activities and proposal contents and 8. whether proposed work plan is in accordance with TOR or not.

After evaluating the proposals, the selection committee members selected Integrated Community Development Campaign (ICDC). The activities targeting institutional development of sericulture groups started from February 2009.

6.3 Activities through NGO

The project requested the NGO to first conduct a Baseline Household Survey. The Endline Survey was done in early 2011 and the all activities were completed in October 2011.

Table 6.1: Activities through NGO

S.N.	Implemented activities
JFY 2008	
1	Baseline Household Survey
JFY 2009	
1	District level orientation
2	VDC level orientation at three VDCs
3	Community level orientation at 12 sericulture farmer groups
4	Broadcasting sericulture program through Radio Dhading
5	Basic account training and distribution of account books and passbooks
6	Basic Health Training
7	Revitalisation of sericulture groups, establishment new groups, participation in monthly project meeting
8	Cooperatives Management Training
9	Leadership Training
10	Promotion of sericulture through street drama at 5 spots
11	Community Mediation Training
12	Study Tour to Ilam district
13	Spider-web Assessment on institutional development of sericulture groups
14	Prize distribution of sericulture farmers who produced best quality cocoon and silk mobiliser with best performance
JFY 2010	
1	District level coordination meeting
2	Support for sericulture groups to plan and prepare proposals
3	Revitalize seri-groups, participation in monthly meeting
4	Production and distribution of sericulture promotion materials Such as notice board along high way, leaflet and newsletter
5	Broadcasting sericulture program through Radio Dhading
6	Study Tour to Syanjya district
7	Tourism promotion activity for Salang village, coordination with Commerce related institutions in Dhading
8	Sericulture related Health Seminar at 12 sericulture farmer organisations
9	Cooperatives development training, preparation for registering sericulture groups as cooperatives
10	Account Management Training
11	Community Mediation Refresher Training
12	Improved Stove Making Training
13	Training on Leadership and Facilitation
14	Site visit with Journalists for producing sericulture related programs and articles
15	Equipment provision to new sericulture groups
16	End-line survey, Spider-web evaluation on institutional development of sericulture groups
JFY 2011	
1	Promotion of "Made in Dhading" Zaguri products
2	Meeting with VDC political leaders and sericulture group members at three VDCs
3	District level Project Final Seminar
4	Business skill Training for sericulture farmers
5	Training mulberry garden establishment and skill development

6.4 Changes in Institutional Development of Sericulture Groups

The spider-web evaluation method is an evaluation tool in which a target group evaluates its own institutional development based on set evaluation criteria.

During the evaluation process, five categories were set as per below with 15 sub-items:

Table 6.2: Spider-web Evaluation Five Category and Sub-items with Points

	Category	Item	Points
1	Group Management	Rule making and following	4
		Participation in activities	4
		Decision making process	4
		Highest score	12
2	Program Management	Production of Action Plan	4
		Activity implementation based on plan	4
		Motivate and facilitate non-active members to participate	4
		Highest score	12
3	Coordination	Coordination with other organisations within village	4
		Coordination with district level gov. line agencies, NGO/INGO, CBO, private sector, etc.	4
		Coordination and cooperation with other similar groups and organisations	4
		Highest score	12
4	Institutional Development	Division of responsibility	4
		Information sharing	4
		Human resource capacity development	4
		Highest score	12
5	Group Efficiency	Collection of regular saving	4
		Minutes taking, book keeping, filing documents	4
		Needs assessment and prioritisation of needs	4
		Highest score	12

The Project worked with 13 sericulture groups in the area of institutional development.

The list of 13 groups is as per below⁴. The total number of member includes those who have left sericulture.

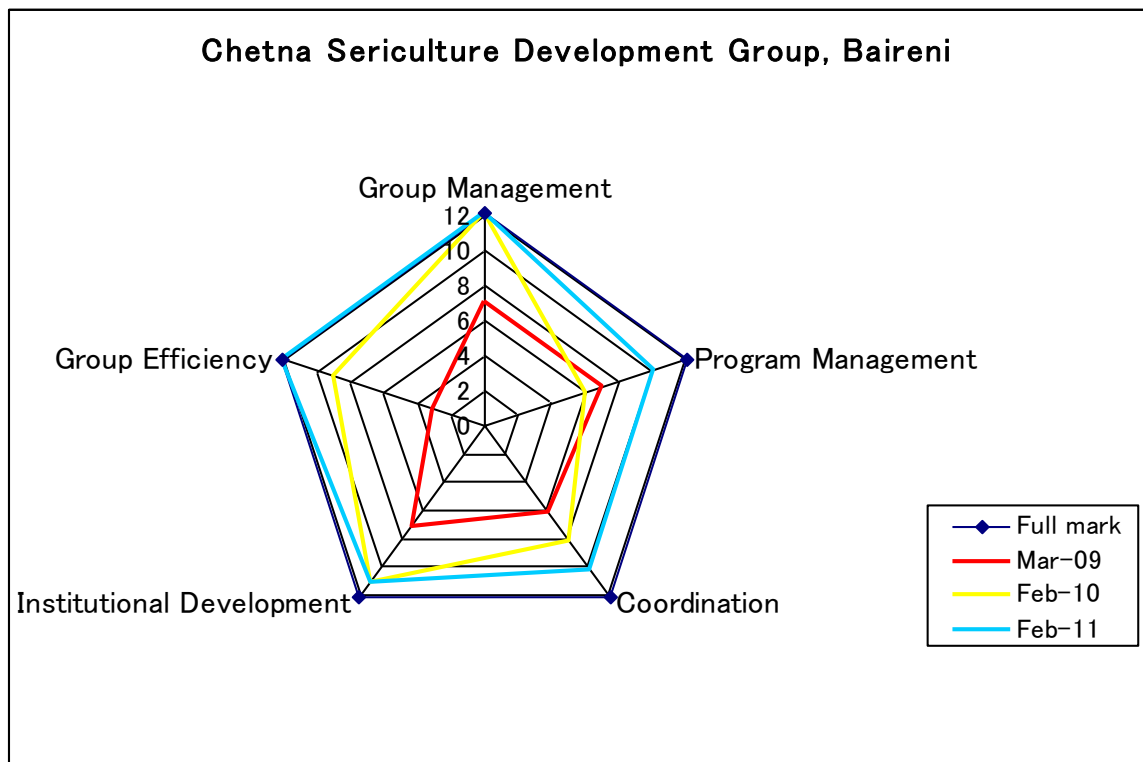
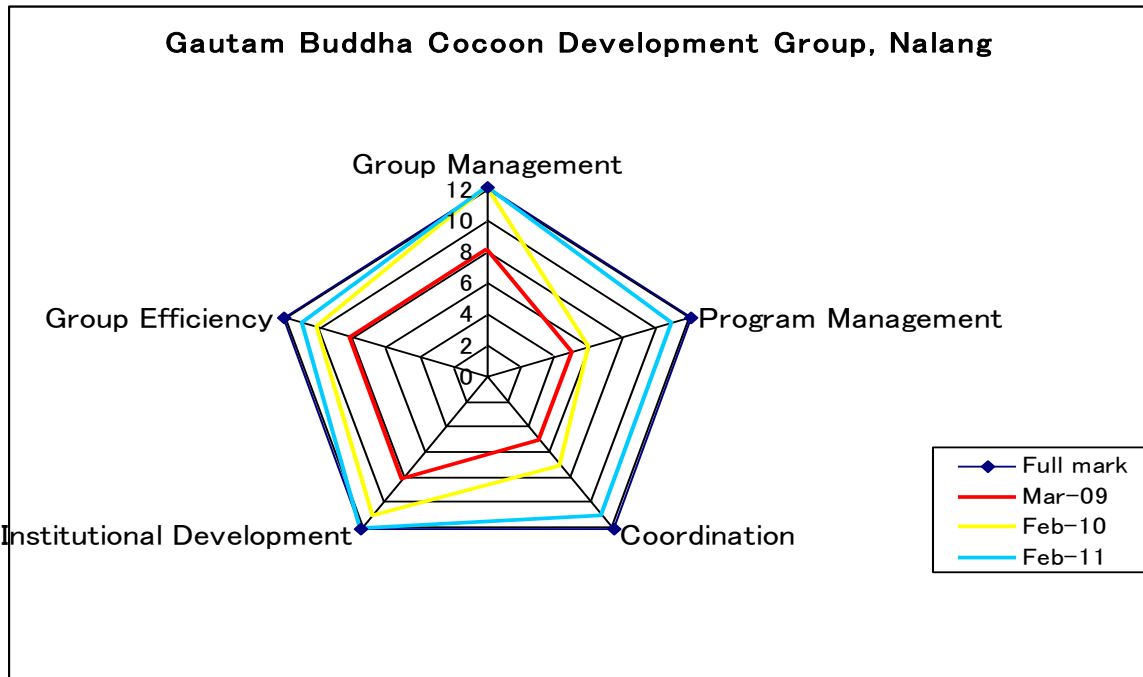
Table 6.3: List of Sericulture Farmer Groups

S.N.	VDC	Group Name	No. of member
1	Nalang	Gautam Buddha Sericulture Development Group/Cooperative	32
2	Nalang	Manakamana Sericulture Development Group	15
3	Nalang	Pragatisil Sericulture Development Group	19
4	Salang	Akala Sericulture Development Group	30
5	Salang	Pragatisil Sericulture Development Group	9
6	Bhaireni	Chetna Sericulture Development Group	16
7	Bhaireni	Panchakanya Sericulture Development Group	11
8	Bhaireni	Shankhadevi Sericulture Development Group	9
9	Bhaireni	Bageshwari Sericulture Development Group	14
10	Sankosh	Prabhat Sericulture Development Group	13
11	Bhumisthan	Kalidevi Sericulture Development Group	11
12	Bhumisthan	Makhamali Sericulture Development Group	21
13	Kumpur	Sundevi Sericulture Development Group	7

Spider-web evaluation on institutional development was conducted in March 2009, February 2010 and February 2011. The evaluation targeted 11 groups in 2009, 5 groups in 2010 and 13 groups in 2011. Among those groups which were evaluated three times. Two cases are shown as examples below:

⁴ In Kumpur VDC, all sericulture farmers left sericulture activity from 2010 second season; therefore it is not targeted in ID activity.

Figure 6.1: Two examples of Spider-web Evaluation



Spider-web evaluation revealed that the institutional capacity and situation of all sericulture groups were clearly developed and improved through two and a half years' activities by the NGO. The results steadily increased in the period 2009-2011. The improvements were the outcomes of various trainings, the fact that NGO staff participated in monthly group meetings every month and the transfer of necessary know-how for institutional development. Some outstanding activities of sericulture groups include:

- ✓ A group in Sankosh lacked experience on ID. Though they planted mulberry trees, most of them were eaten by livestock in 2008 and 2009. Realising their mistakes, they decided to use unused land in their community which they decided to fence. The group approached VDC and submitted a proposal for fencing.
- ✓ Two groups, one in Nalang and one in Salang, established a Zaguri Women Group under the sericulture groups, and started producing Zaguri silk purchasing all the cocoon produced in the respective villages. The reeled Zaguri silk are sold to private businesses in Kathmandu. From 2010 spring 2nd. these two groups started motivating women's participation into Zaguri production, paying appropriate wages to the reelers, managing necessary expenses for Zaguri production from their fund and engaging in production and sales of Zaguri silk more than one year. Much progress was made, especially in negotiation with private sector and application for government subsidies.
- ✓ One group in Nalang received an order of 200,000 saplings of mulberry trees from a donor supported project. The mulberry tree plantation was for livestock development, not for sericulture. The mulberry seedlings produced by the sericulture group were purchased at Nrs.2/seedling. The group produced only 100,000 saplings but gained much experience in coordinating with others.

6.5 Issues for Future

It is expected that the institutional development of sericulture farmer groups will be carried out by JT/JTAs of the government sericulture office. According to the Project PDM, the capacity of sericulture group will be strengthened through improving facilitation capacity of JT/JTAs by the NGO. In reality, as was discussed during the final evaluation of the project, the government is not in favour of working closely together with an NGO. Officials do not want to admit that NGO capacity in some areas is better than theirs. For example, in terms of institutional development of farmer groups and facilitation skills, NGOs tend to be better qualified than the government. The government argued that such budgets should be spent exclusively on government personnel. Also, officers at DOA generally feel that technology transfer is more importance than institutional development.

The government is advised to implement the following:

① As per the policy "Nepal Agriculture Extension Strategy", DOA is required to implement capacity development activities in order to capacitate their extension workers on institutional development. A sample package has been developed by another JICA project, Agriculture Training and Extension Improvement Project (ATEIP), implemented in the period Jan 2004 – Jan 2009. All necessary items required for institutional development of farmer groups are compacted in Human Skill Development Training.

② In the process of conducting institutional development of farmer groups, extension

workers are required to commute to the target groups and participate in their activities frequently. However, due to lack of travel allowance and dairy allowance (TADA), counterpart offices can send their extension staff only when technical instructions are necessary. The government therefore needs to allocate sufficient TADA so that extension workers can visit villages more frequently.

CHAPTER 7: CONSTRUCTION OF MODELS

In the absence of models to develop sericulture, the Project proposed five models which are appropriate for 5-year implementation.

7.1 Sericulture Technology Transfer Model

The major technologies necessary for improvement of sericulture production were discussed and packaged into five kinds of sericulture technical manuals. The published technical manuals are “Silkworm Rearing Calendar”, “Illustrated Technical Manual on Silkworm Rearing Technology”, “Illustrated Technical Manual on Mulberry Cultivation Technology”, “Illustrated Technical Manual on Cocoon Assessment”, and “Technical Manual on Silkworm Disease Management”. In addition, “Silk Production” provides a detailed description of the production of Zaguri silk and development of silk products.

In the process of preparing the technical manuals, the Project used KJ methods to extract keywords on sericulture technology from government officers. Officers and experts discussed on the contents of technical manuals based on those keywords.

The technical manuals contain simple language and many pictures so that sericulture farmers can easily understand the contents. The manuals are written in two languages, English and Nepalese.

Using the published technical manuals, trainings for JT/JTAs were conducted as a course of cascading training. The trained JT/JTAs in turn conducted farmer level training and demonstrations to further extend technical know-how. The technical manuals have been utilised in extension activities areas besides the Project target area. As a result, they are contributing to share standard sericulture technology to sericulture farmers all over Nepal.

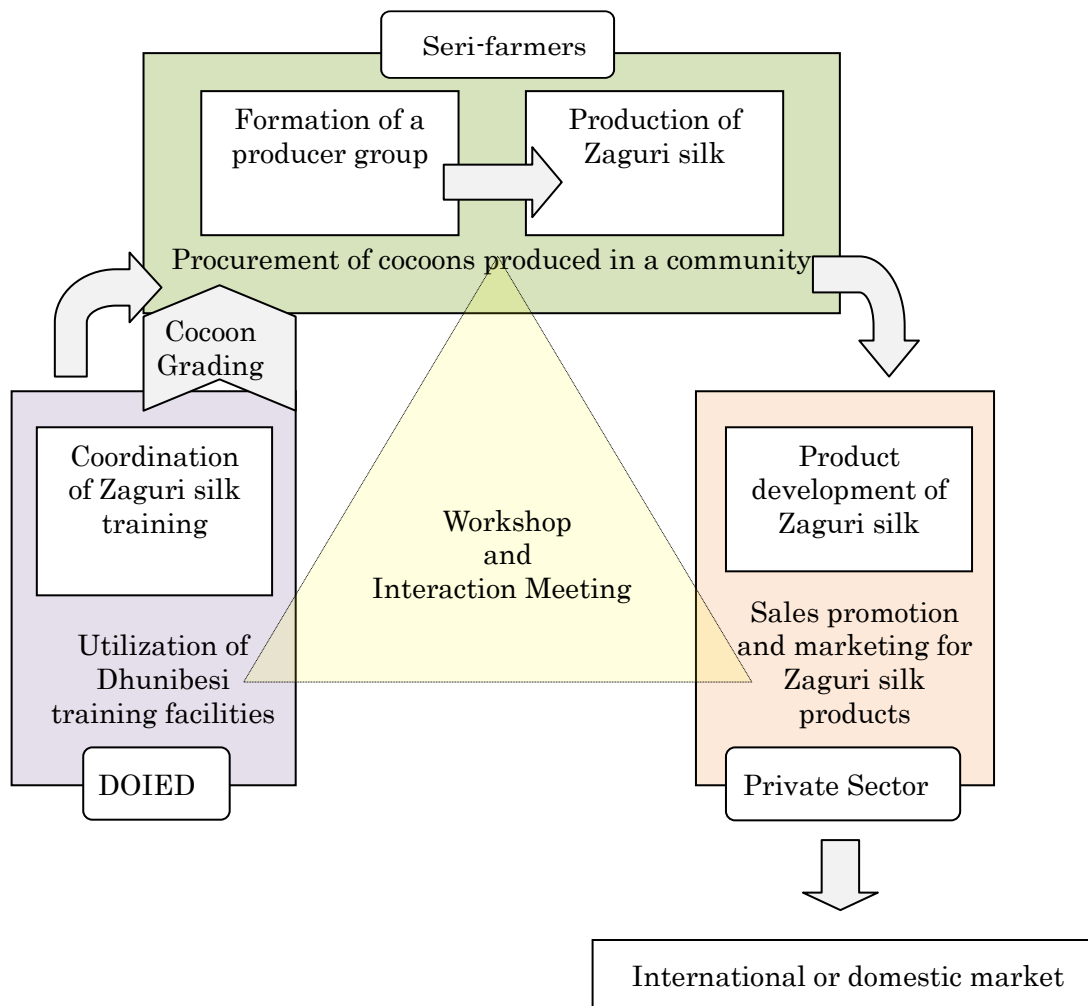
7.2 Zaguri Silk Marketing System

Establishing a production and marketing system of Zaguri silk was a prerequisite for motivating the private sector to produce final products. The project has established two models for production and marketing of Zaguri silk in Dhading.

Model 1: Sericulture farmers produce Zaguri silk from their own cocoon and sell it to private sector.

Processes: ①Acquiring Zaguri producing technology →②forming Zaguri silk production group in community →③producing Zaguri silk →④strengthening coordination among DOIED, community and private sector →⑤selling Zaguri silk to private sector which produces Zaguri silk products

Figure 7.1: Supply Channel of Zaguri Silk – Model 1

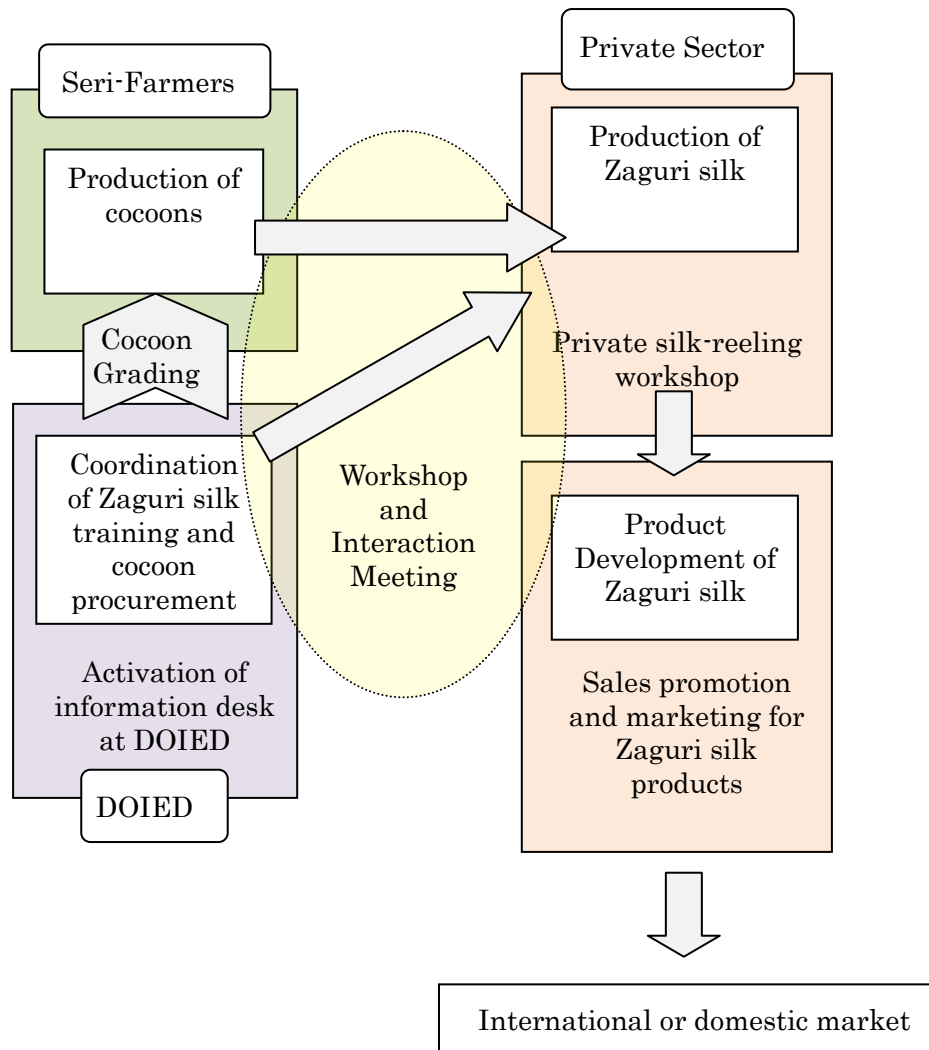


In this model, DOIED only engages in organising Zaguri training as a part of capacity development of sericulture farmers. The sales of cocoon and Zaguri silk are done between sericulture farmers and the private sector. This model was applied in Nalang and Salang villages where farmers have been selling Zaguri silk to WGA, EAP and Mahaguthi.

Model 2: Sericulture farmers sell their cocoon to private reelers who takes care of reeling and sales of Zaguri silk to private company who in turn produce final products

Process: ① Private reelers acquires technology of Zaguri silk production → ② establishing linkage between private reelers and sericulture farmers → ③ based on the information provided by DOIED, private reelers purchase cocoon from sericulture farmers → ④ private reelers product Zaguri silk → ⑤ private reelers sell Zaguri silk to private company which product final products out of Zaguri silk

Figure 7.2: Supply Channel of Zaguri Silk - Model 2



In this model sericulture farmers produce cocoon while private reelers purchase the cocoon and produce Zaguri silk. The Zaguri silk will be sold to private companies who produce final products. DOIED is required to provide technical training on Zaguri silk production to reelers and information on cocoon availability. A private reeler in Bhaireni village and WGA are the examples of this model. They purchase cocoon directly from sericulture farmers based on the information provided by DOIED and reel Zaguri silk. The private reeler in Bhaireni sells the Zaguri silk to a private company in Kathmandu; WGA produces its own silk products and sells them to overseas markets.

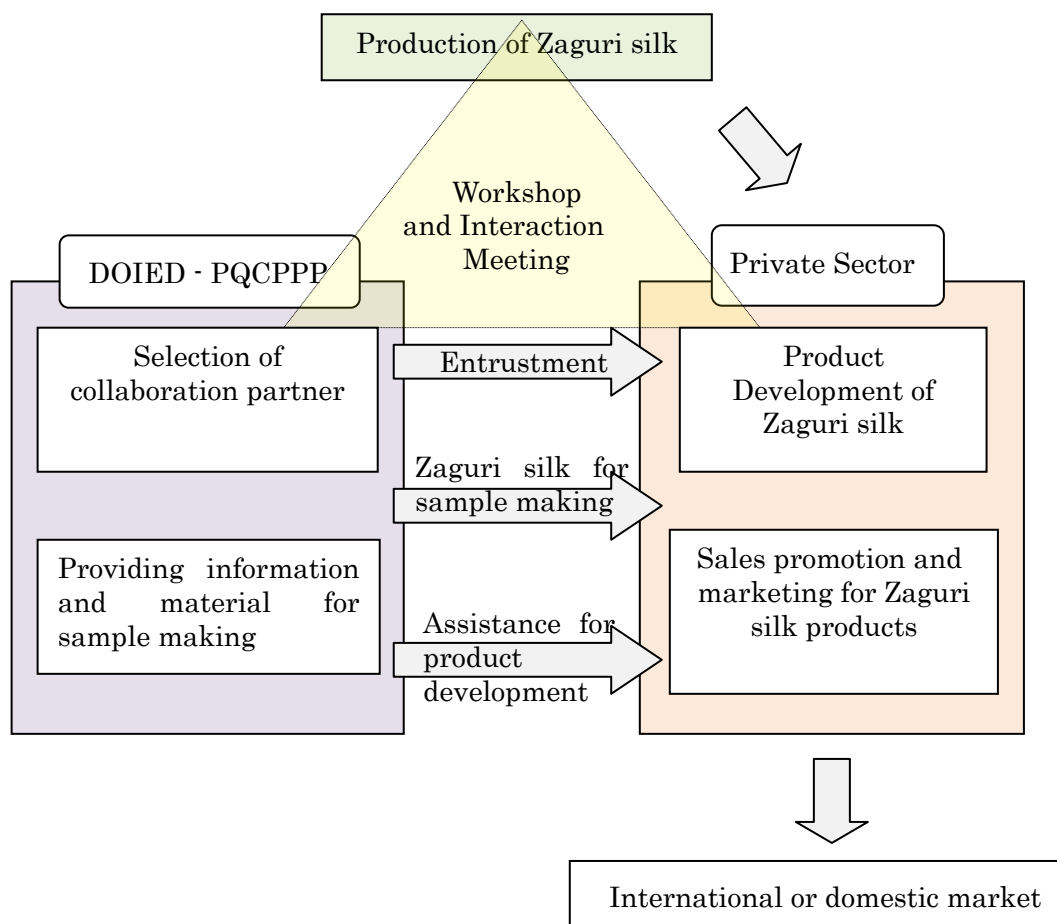
7.3 Private Sector Involvement in Zaguri Silk Product Development

Model construction for involvement of private sector was conducted according to the following procedures:

- ① Selection of partners, producing official letter for coordination from DOIED

- ② Information provision on silk and Zaguri silk, implementing training on Zaguri silk production technology
- ③ Provision of Zaguri silk for product development
- ④ Establishing linkage between Zaguri silk supplier and private companies
- ④ Product development by private sector and market exploitation

Figure 7.3: Involvement of Private Sector for Zaguri Silk Products Development



In this model the most important issue is whether or not the production of Zaguri silk items is profitable for the private sector. For this, a steady supply of Zaguri silk should be guaranteed.

7.4 Restructuring Monitoring System Using Surveying Formats

In order to clarify the size of silkworm rearing, rearing conditions, production of cocoon and sales price of cocoon by sericulture farmers, Inspection Notebook (as shown in Appendix 14) was produced and distributed to all the sericulture farmers of the project area. This format was also the record of frequency of visits by JT/JTAs and silk mobilisers to sericulture

farmers by adding the date of visit and content of technology transfer. The formats were collected after each sericulture season and used for understanding the real situation of sericulture farmers and confirming extension activities.

The problems such as delay in growth of silkworms and occurrence of silkworm diseases were often witnessed after distribution of young silkworms to seri-farmers. They blame CRC activity for those problems. A Chawki Rearing Certificate was produced to keep records of rearing information at CRC. Checking the items written on the format will help technicians to understand the rearing situation and occurrence of silkworm disease. This format also has to be signed by JT/JTAs when conducting technical instruction at CRC.

7.5 Restructuring Sericulture Statistical Data Collection System

Sericulture related statistical data are the basic and important data for promoting sericulture administration. However, maintenance of such data initially was far from sufficient. The counterparts from DOIED and JICA experts discussed the required items for statistics, the format, and the method to collect data. The Chief Advisor contributed on construction of those formats according to the survey purpose. Among the details listed in sericulture statistics are ① organisations of DOIED and the responsibility of each farm, ② year-wise sericulture statistics of whole Nepal, ③ year-wise sericulture budget and its implementation situation, ④ kinds of subsidies and its implementation, ⑤ village-wise and sericulture season-wise sericulture situation survey, ⑥ survey on level of adaptability of technology transfer in Dhading, ⑦ production cost survey of cocoon and silk..

DOIED appointed one officer to deal with sericulture statistics and started collecting data using the formats. However, the data collected were not complete which caused gaps in the Project and government's knowledge.

Utilising structured information collection systems for sericulture statistics will help the government to understand the sericulture sector in Nepal more accurately, to analyse the situation and problems correctly, and to use the data for more effective sericulture administration.

CHAPTER 8: CONCLUSIONS

It is probably not an exaggeration to conclude that with the support of PQCPPP sericulture, has finally established itself as a sustainable industry. The project believes it was a great achievement that Nepal's silk industry expanded from cocoon production to silk product development and sales.

The project purpose "improving production of quality cocoon" was largely met. The normal cocoon ratio (80%), shell ratio (20%), and hatching percentage (90%) exceeded the targets, although cocoon productivity per household could not achieve the target of 20 kg. The project purpose "production of original silk products by private entrepreneurs" was achieved when four private companies developed new Zaguri silk products with support from the Project and started sales. Thus, besides yield per box, project purposes were largely accomplished.

A National Sericulture Policy has been drafted but not yet formalised. Published technical manuals have been utilised in technical support for farmers as standard sericulture technology all over Nepal. Zaguri silk production is now extended to Kathmandu, Kopasi, Bhandipur, Chitwan, Pokhara and Dhading district. In addition, silk product development using Zaguri silk has been promoted by the private sector and some products are on sale in both domestic and international markets.

Cocoon transaction now takes place based on fair cocoon quality assessment by the government. Training using technical manuals on cocoon grading has been carried out, and the knowledge and skills of JT/JTAs on cocoon grading has been improved. In February 2009, DOIED enabled the private sector to purchase cocoon and Zaguri silk directly from the government and sericulture farmers. Furthermore, DOIED has started subsidies to promote direct purchases of cocoon and silk by the private sector. It has collected stock information of dry cocoon and Zaguri silk and introduced a system in which the government can provide necessary information to the private sector. The private sector, farmer entrepreneurs and sericulture farmer groups started the production of Zaguri silk in 2009. So far, the Zaguri women group in Nalang reeled 118.5 kg while the Zaguri group in Salang produced 148 kg Zaguri silk. They earned Nrs.586,000 by selling Zaguri silk to the private sector. Farmer entrepreneurs in Bhairani village produced 1 ton of Zaguri silk so far.

The move to involve the private sector in the sericulture industry has been successful. As a result the image of Nepalese silk among beneficiaries and customers improved significantly. However, the cocoon income per household in the target area showed a decreasing trend and stayed in the range of NRs.4,300 to 6,500. Increasing cocoon sales are a crucial factor to

draw farmers' motivation, therefore increasing the yield per box as an indicator of productivity is crucial.

To increase cocoon yield it is necessary to increase the productivity of mulberry gardens. This can be achieved through measures like application of chemical fertiliser, prevention of silkworm disease with perfect disinfection, improvement of the rearing method of young and adult silkworms, and skill development of sericulture farmers utilising technical manuals published by the Project. To achieve the overall goal related to income increment of sericulture farmers, in it is also important to improve management affairs and sericulture income of farmers from an economical point of view.

As mentioned earlier, activities were implemented according to PDM and PO and many outcomes under the project purposes were achieved. Some of these outcomes have been already been replicated in other areas of the Project. Therefore there is scope to attain the overall goals in future.

CHAPTER 9: RECOMMENDATIONS

1) Early Approval of National Sericulture Policy

A major focus of the project was the formulation of a national policy and strategy. In the course of the project period, the government, private sector, NGO and sericulture farmers agreed upon the contents of a sericulture strategy including the promotion of sericulture in general and private sector involvement into the industry. Consequently, DOIED revised and drafted a National Sericulture Policy based on the sericulture strategy. The policy however has not been approved by MOAC yet. The government needs to clarify its position on sericulture promotion by approving the policy through MOAC, National Planning Commission and Ministry of Finance.

2) Sericulture Technology

① Review of rearing season and frequency of silkworm rearing

In order to motivate farmers for taking up sericulture, it is important to stabilise production and to increase cocoon production. Sericulture income should become the core part of household income and should be steadily increased. As a measure to stabilise cocoon production, improving sericulture technology is needed but so is setting the right season and frequency of silkworm rearing in each production area. Rearing environment includes mulberry growth circumstances, air temperature and humidity, climate (raining season and dry season), labour availability in relation with other crops, etc. Taking these issues into consideration, the best rearing season and rearing frequency can be decided for stable and increased production.

② Capacity development of technicians

Currently the majority of technicians have insufficient experience in sericulture and opportunities to gain skills in sericulture are limited. Capacity development of technician is a major requirement for expanded sericulture production.

Another requirement is the review of the organisational structure and the establishment of an institution specialised in sericulture. This will reduce the transfer of technicians and will lead to an increase in experienced technicians. In addition, establishing a sericulture research centre is required to further develop mulberry cultivation and silkworm rearing technology and to improve the skill level of technicians and sericulture farmers.

If the government expects JT/JTAs to contribute to the institutional development of farmer groups, they need to be equipped them with the required TADA, knowledge and skills. Human Skill Development training packages are already available.

③ Appropriate incubation technology should be reinforced

Incubation of silkworm seeds should be managed properly since it affects the hatching percentage and conditions to a great extent. Some of the current problems in incubation management include the fact that the containers used for incubation are too small, while temperature, humidity and light control and dark incubation before hatching are not appropriate. As a result there is a lack of uniformity in the size of silkworms while some are hatched during the next day of hatching. Proper incubation will result in increased cocoon yield per box.

Proper incubation requires a container in which 20,000 silkworm eggs can be spread without be piled up. It further requires a temperature of 25°C and humidity of 75-80% during a 16-hour light and 8-hour darkness exposure. Complete darkness needs to be maintained for when over 50% of seeds reach maturity to brushing so that uniform, healthy silkworm are produced.

3) Zaguri silk production

Two models have been established for Zaguri production (see Figure 7.1, 7.2 and 7.3). The models shown in Figure 7.1 and 7.2 can be replicated in each sericulture farm under DOIED. However, to implement the model shown in Figure 7.3, a sales promotion programme for the private sector and appropriate other promotion measures are necessary. Linkage with the Chamber of Commerce and Ministry of Industry is required as well. The Project believes a government strategy to nurture and strengthen Nepalese products will further strengthen the production of Zaguri silk.

4) Restructuring sericulture related statistics

Maintaining sericulture related statistics is importance for DOIED as a foundation for a professional sericulture administration. With support from the Project, formats required for sericulture administration have been arranged and information collection using those formats has started. However, the capacity in collecting information at DOIED as well as sericulture farms is insufficient. In future, the accuracy of sericulture related information needs to be graded by the officer in charge of sericulture statistics at DOIED. The project encourages DOIED to update the contents of “Annual Review of Sericulture” and continue to publish it every year.

APPENDIX

- Appendix 1: Original Project Design Matrix (PDM) of the PQCPPP Project
- Appendix 2: Updated PDM of the PQCPPP Project
- Appendix 3: Performance Implementation Schedule
- Appendix 4: Performance Assignment Schedule
- Appendix 5: JCC Meeting List
- Appendix 6: Program Schedule of Sericulture Policy Drafting Workshop
- Appendix 7: Participant List of Sericulture Policy Drafting Workshop
- Appendix 8: Training List of PQCPPP
- Appendix 9: Training and Demonstration List that Dhunibesi JT/JTAs conducted for sericulture farmers
- Appendix 10: List of interaction meeting
- Appendix 11: Program Schedule of Workshop on Promotion of Zaguri Silk
- Appendix 12: Participant List of Workshop on Promotion of Zaguri Silk
- Appendix 13: Result of Spider-web Assessment on Institutional Development of Sericulture Farmers Groups
- Appendix 14: Inspection Notebook
- Appendix 15: CRC Certificate

Appendix 1: Project Design Matrix "Promotation of Qulatiy Cocoon Production and Processing Project

Target Area : Dhading District, 7VDC/ Baireni, Salang, Nalang, Kumpur, Sankosh, Bhumisthan, Murle Bhanjyang

Duration : From Nov. 2006/ To Oct. 2011 5 years

Target Group 1) Seri- Farmers in the Targeted Area ; 400 H.H

2) Staff of Directorate of Industrial Entomology Development ;50 Members

3) Resident in the target area ; Around 5 thousand

As of 29th September, 2006

Narrative Summary	Objectively Verifiable Indicator	Means of Verification	Important Assumption
<p>[Overall Goal] The model for quality cocoon and silk production are replicated nationwide in Nepal The income of seri –farmers and workers around seri- farmers is increased through the improvement.</p>	<ul style="list-style-type: none"> • The number of replication case of the model. • The popularity on Nepal indigenous silk in Market. • The sari farmers' status of income-expenditure. • The workers' status of income-expenditure. 	<ul style="list-style-type: none"> • Budget of MOAC/DOA • Statistic survey data • Farmer's sample survey 	<p>N/A</p>
<p>[Project Purpose] The Quality Cocoon Production in target/model area is verified with capacity building and strengthening the linkage among seri-farmers group, Government technicians, NGOs, Private entrepreneurs and other stakeholders.</p>	<ul style="list-style-type: none"> • The quality of cocoon /measured by i)selection ratio & ii)silk layer ratio • The efficiency of Quality Cocoon Production/ measured by i)incubation ratio & yield per box • The number of improved technology rooted among seri-farmers compared to the number of imparted technology • The Government technicians' concern/attention toward seri-farmer/ measured by the frequency of visit and consultation. • The number of cases that Private entrepreneurs procure cocoon with reference to the result of inspection. 	<ul style="list-style-type: none"> • Project Monitoring Report • Activity Record book of JT/JTA • Activity Record book of Seri-Farmer's Group • Farmer's sample survey 	<ul style="list-style-type: none"> • Government's Policy on Sericulture Promotion continues • Silk Market doesn't get smaller. • Government and NGO technicians/staff concerned to Project Implementation continue the support to Seri-farmer's
<p>[Output] 1. The standardized technology for Quality Cocoon Production, Cocoon Quality Inspection and post cocoon harvest is established</p>	<ul style="list-style-type: none"> • The number of technical guideline and manuals developed in the Project • The management status of facilities for silkworm rearing house/ measured by frequency of usage and existence of usage/ maintenance regulation. • The number of silkworm disease occurrence and silkworm mortality ratio. • The degree of fulfillment of Cocoon Quality Inspection by the Government technicians. • Seri-Farmers' capability on silk product marketing. • The Government technicians' capability on silk product sales promotion. • The number of cases with indigenous silk production methodology is applied 	<ul style="list-style-type: none"> • Project Monitoring Report • Activity Record book of JT/JTA • Activity Record book of Seri-Farmer' Group • Farmer's sample survey • Technical Manual 	<ul style="list-style-type: none"> • the Government revises and introduces cocoon inspection system for trading based on a genuine quality • The Government creates the environment for private entrepreneur to invest on indigenous silk production.
<p>2. The capacity of seri-farmers, Government technicians and NGO staff for promoting Quality Cocoon Production and Cocoon Quality Inspection technology are strengthened.</p>	<ul style="list-style-type: none"> • Seri-farmers' group membership ratio. • The number of improved technology rooted among Government technicians' compared to the number of imparted technology. • The Government technicians capability on facilitating seri-farmers' group. • The number of improved technology rooted among NGO staff compared to the number of imparted technology. • The number of training opportunity for seri-farmers group. • The number of advanced seri-farmers expected to be technical resource person. 	<ul style="list-style-type: none"> • Project Monitoring Report • Activity Record book of JT/JTA • Activity Record book of Seri-Farmers' group • Farmer's sample survey 	
<p>3. The linkage among Government Agency, NGO and Private</p>	<ul style="list-style-type: none"> • The frequency and number of JCC and RCC. 	<ul style="list-style-type: none"> • Project monitoring Report 	

<p>Entrepreneur are strengthened.</p>	<ul style="list-style-type: none"> • The among/expense that Entrepreneur traded/paid for procurement of Quality Cocoon from Seri- farmers' groups. • The establishment and clarification of TOR for stakeholders (Government technicians, NGO staff and private entrepreneurs). 	<ul style="list-style-type: none"> • The Government's Policy for PPP in Sericulture • Private Entrepreneur's sample survey • Farmer's sample survey 	
<p>[Activity 1] 1-1 to advise for the improvement for mulberry plantation, cultivation and harvesting. 1-2 To improve silkworm rearing and disease prevention technology. 1-3 To improve incubation rate and young silkworm rearing 1-4 To practice Cocoon Quality Inspection and cocoon post harvesting activities (Drying, Cleaning and Grading). 1-5 Farmers group and other stakeholders to conduct marketing survey on cocoon and silk. 1-6 To develop indigenous silk item and practice sales promotion.</p> <p>[Activity 2] 2-1 NGO to organize group among Seri-Farmer 2-2 TO conduct facilitation training and technical training for Government technicians. 2-3 To conduct technical training for NGO staff. 2-4 To conduct technical training for Seri-farmers groups 2-5 To conduct "Training for Trainers" for Seri-farmers.</p> <p>[Activity 3] 3-1 Stakeholders to hold periodical meeting at KTM ("Joint Steering Committee") and Field in Dhading ("Regional Coordination Committee"). 3-2 Introduce appropriate monitoring system.</p>	<p>[Input from Japanese side] 1) Dispatch of Experts Long Term : One Person/ Chief Advisor/Sericulture Promotion Policy Short Term : As necessary 2) Procurement of Equipments & Facilities Community Rearing House & Cocoon Drier, if necessary 3) Training Third country Training to INDIA, if necessary 4) Local Cost Assignment of NGO/s and Local Staff Cost for In-country Training and W/S, if necessary</p>	<p>[Input from Nepalese side] 1) Assignment of PD, PM and Necessary Government staff/ technicians for implementing the Project 2) Preparation for Land and Project office (Central office at DOIED and Field office at Dhading) 3) Running cost for the Project Implementation 4) Salary and TA/DA for staff, Water/ Electricity/ Rental fee, etc</p>	<ul style="list-style-type: none"> • NGO/s who has enough experiences in community Development are assigned for Project Implementation. • The Nepalese Counterparts assigned for this Project continue to work for the Project. • The Private entrepreneurs are interested and affirmative in the Silk Industry Development. <p>[Pre-Conditions]</p> <ul style="list-style-type: none"> • The necessary Number of Nepalese Counterpart staff are assigned. • The farmers in Target Area select Sericulture as desirable cash crop. • The Governments' existing services (Supply of i)mulberry sapling, ii) Silkworm Egg and iii) Antiseptics, etc.) continue during the Project period . • The insurgent situation in the target area is kept normal.

Appendix 2 : Revised Project Design Matrix "Promotion of Quality Cocoon Production and Processing Project"

Target Area : Dhading District, 5VDC/Baireni, Salang, Nalang, Kumpur, Sankosh (Bhumisthan, Murali Bhanjyang)

Duration : From Dec., 2006/ To Nov., 2011

5 years

Target Group 1) Staff of Directorate of Industrial Entomology Development

2) Seri-Farmer in the Targeted Area

As of 15th June, 2009

Narrative Summary	Objectively Verifiable Indicator	Means of Verification	Important Assumption
<p>[Overall Goal] The model for quality cocoon and silk production are replicated to other parts of Nepal The income of seri-farmers and workers around seri-farmers is increased through the improvement.</p>	<ul style="list-style-type: none"> • 1 case where the model is replicated • Introduction of trading between farmers groups and private entrepreneurs based on fair grading system • Increase in income of seri-farmers (50%) and zaguri manufacturers (20%) from cocoon production in the target area 	<ul style="list-style-type: none"> • Annual report and budget of DOIED • Sericulture statistics and sample survey 	<ul style="list-style-type: none"> • Government's Policy on Sericulture Promotion continues.
<p>[Project Purpose] The quality cocoon and silk production model is verified in the target area through capacity building and strengthening of the linkage among seri-farmers groups, Government technicians, Private entrepreneurs and other stakeholders</p>	<ul style="list-style-type: none"> • Increase in quality cocoon production (normal cocoon ratio 80%, shell ratio 20%, hatching percentage 90%, yield per box 20kg) • Production of original silk products by private entrepreneurs (3 products by 3 entrepreneurs) 	<ul style="list-style-type: none"> • Result from Monitoring and Grading by GoN • Result from Monitoring and interview survey 	<ul style="list-style-type: none"> • Government's Policy on Sericulture Promotion continues. • Governmental staffs and Private entrepreneurs concerned to Project Implementation continue the support to Seri-farmers. • Silk price doesn't have a great fall.
<p>[Output] 1. The technical capacity among farmers groups are strengthened though capacity development of Government technicians.</p>	<ul style="list-style-type: none"> • Distribution of 5 technical manuals • The retention (20% increase in monitoring score) of technique among seri-farmers • The retention (30% increase on test score in training) of technique and facilitation skills among Government technicians 	<ul style="list-style-type: none"> • Record of Project activities • Result from Monitoring and interview survey • Result from Monitoring and interview survey 	<ul style="list-style-type: none"> • the Government organizes cocoon inspection system for trading based on a genuine quality. • The Government creates the environment for Private entrepreneurs to invest on original silk products.
<p>2. The cooperation among Government, Private entrepreneurs, and seri-farmers' groups for market exploration is established.</p>	<ul style="list-style-type: none"> • Introduction of fair grading system by Government • More than 3 Private entrepreneurs involved in zaguri product development • Intensity of linkage among Government, Private entrepreneurs and seri-farmers group (more than 4 times of meetings/ activities in the final year) 	<ul style="list-style-type: none"> • Record of Project activities • Record of Project activities and interview survey • Record of Project activities and interview survey 	<ul style="list-style-type: none"> • DOIED accepts proposals from the Project and take necessary measures.
<p>3. The capacity of DOIED to strengthen linkage among Governmental Agencies, farmers and Private entrepreneurs is strengthened.</p>	<ul style="list-style-type: none"> • improvement in performance of seri-farmers groups • Involvement to Government in activities of farmers groups and Private entrepreneurs (12 visits/yr to farmers groups, 3visits/yr to private sector) • Introduction of new monitoring system and statistics 	<ul style="list-style-type: none"> • Spider-web tool self-evaluation • Result from Monitoring and interview survey • Record of Project activities • Farmer's sample survey 	
<p>[Activity 1] 1-1 To standardize technology and methodology for farmer for production of cocoons, post-harvesting, and Zaguri silk production and compile as manuals 1-2 To conduct trainings to Government technicians, silk mobilizers and farmers groups in Cascade Method as OJT</p> <p>[Activity 2] 2-1 To propose distribution system suitable for current situation of market and Private entrepreneurs based on value chain survey 2-2 To propose cocoon inspection system to grade a cocoon equally by its genuine quality 2-3 To design the method for intervention of Private entrepreneurs and support DOIED to introduce direct procurement of cocoon by Private entrepreneurs as a trial 2-4 To provide support for private entrepreneurs producing using Zaguri silk</p> <p>[Activity 3]</p>	<p>[Input from Japanese side] 1) Dispatch of Experts Long Term : One Person/ Chief Advisor/Sericulture Promotion Policy, Coordinator/Farmers Organization) Short Term : As necessary 2) Procurement of Equipments & Facilities Community Rearing House, Zaguri Training Facility & Cocoon Drier as necessary 3) Training Third country Training to as necessary 4) Local Cost Assignment of NGO/s and Local Staff</p>	<p>[Input from Nepalese side] 1) Assignment of PD, PM, and Necessary Government staff/ technicians for implementing the Project 2) Preparation for Land and Project office (Central office at DOIED and Field office at Dhading) 3) Running cost for the Project Implementation 4) Salary and TA/DA for staff, Water/Electricity/Rental fee. etc</p>	<ul style="list-style-type: none"> • The Nepalese Counterparts assigned for this Project continue to work for the project • The private entrepreneurs are interested and affirmative in the silk industry. <p>[Pre-Conditions]</p> <ul style="list-style-type: none"> • The necessary Number of Nepalese Counterpart staffs are assigned. • The farmers in Target Area select Sericulture as desirable cash crop. • The Governments' existing services (Supply of i)mulberry sapling, ii) Silkworm Egg and iii) Antiseptics, etc)

<p>3-1 To develop facilitation capacity among Government technicians through organizing farmers 3-2 To hold periodical meetings (Triangular, RCC, JCC for the coordination and problem solving among farmers, Government, and private entrepreneurs 3-3 To develop appropriate monitoring system and statistics</p>	<p>Cost for In-country Training, observation visit and W/S as necessary</p>		<p>continue during the Project period . • The insurgent situation in the target area is kept normal.</p>
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Appendix 3: Performance Implementation Schedule

The First Half : December 2006 – December 2008

No.	Activities	2006	2007			2008		
		Dec	Jan	Jul	Dec	Jan	Jul	Dec
1	Advising for the improvement on mulberry plantation, cultivation and harvesting			.....			
2	Improving silkworm rearing and disease prevention technology		.....				
3	Improving incubation rate and young silkworm rearing		.....				
4	Publishing and distributing technical manuals			—				
5	Constructing or repairing CRCs for provision of young silkworm to seri-farmers		—					
6	Supplying incubation equipment for SDO Dhunibesi						—	
7	Constructing cocoon drier and storage for seri-farmers' group		—					
8	Organizing awareness campaign for quality cocoon and inspection		.....				
9	Farmers group and other stakeholders to conduct marketing survey on cocoon and silk		No activity					
10	Developing indigenous silk item and practice sales promotion			.....			
11	NGO to organize groups among seri-farmers		No activity					
12	Conducting facilitation training and technical training for government technicians		No activity					
13	Conducting technical training for NGO staff		No activity					
14	Conducting technical training for seri-farmers groups				X			
15	Conducting Training for Trainers (TOT) for seri-farmers		No activity					
16	Conducting JCC meeting		X			X	X	X
17	Conducting coordination meeting in the field							X
18	Develop project monitoring format		—					

Note) Those activities are according to the revised PO.

Appendix 3: Performance Implementation Schedule

The Second Half : January 2009-November 2011

No.	Activities	2009			2010			2011		
		Jan	Jul	Dec	Jan	Jul	Dec	Jan	Jul	Nov
1	JICA mid-term evaluation mission Revision of PDM and PO	≡								
2	To standardize technology and methodology for farmers for production of cocoons, post-harvesting, and Zaguri silk production and compile as manuals			.....	.....			
3	To conduct trainings to Government technicians, silk mobilizers and farmers groups in Cascade Method as OJT	officer—		—	—	.....		—	—	.....
4	Fact-finding survey on marketing of cocoon and silk private sector has been using		——							
5	To propose distribution system suitable for current situation of market and Private entrepreneurs based on value chain survey			——						
6	Study and analyze the current grading system and its problems			——						
7	To propose cocoon inspection system to grade a cocoon equally by its genuine quality						——			
8	Survey of necessary conditions for making private sector involved in Nepali cocoon and silk market	————								
9	Private entrepreneurs purchase cocoon directly from seri. farmers' groups				- . - . -			- . - . -		
10	To study supporting system which is necessary to have private sector involved in Nepali cocoon and silk market	——								
11	To set up a sales section in the government to sell out the cocoon and silk which government produces		——							
12	To support construction of facilities which is extremely necessary			——						
13	To invite private sector to cocoon and silk market	————			————					
14	To make TOR for NGO and make agreements	—								
15	Monitoring and provision of guidance on NGO's institutional development of seri farmer groups			.....	.....	.....	.....	.....	.....	.....
16	Implementation of facilitation training to extension workers by NGO	—	—			—				
17	To conduct regular meeting among government, seri-farmers, private sector			.....	.....	.....	.....	.....	.....	.....
18	Conducting JCC meeting	X	X		X			X	X	
18	Conducting RCC meeting		X		X			X		
19	To develop statistical data collection and activity monitoring methods				——					
20	JICA final evaluation mission							—		
21	Preparation of project completion report								————	

Note) Those activities are according to the revised PO.

Appendix 4: Performance Assignment Schedule

First Half Period (December 2006 – December 2008)

Responsibility	Name	2006	2007				2008				Total	
		Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec		
Chief Advisor/ Sericulture Promotion Policy	Osamu Shimizu											2 years
Textile Product Development	Eriko Kawaguchi									1.5	1.5	3 month

Second Half Period (January 2009 – November 2011)

Responsibility	Name	2009				2010				2011				Total
		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Nov	
Chief Advisor/ Sericulture Extension Policy	Hiroaki Yanagawa	2	2		2	2	1.5	1		1.3	1.5		1	14.3 month
Project Coordinator/ Farmers Group	Yuko Shibuya													2.9 year
Textile Product Development	Eriko Kawaguchi	1.5	1.5		1.5	1.5	1.5	1.5			1.5			10.5 month
Sericulture Extension	Akio Yamaguchi				1.5	1.5	1.5	1.5		1.3	1.5	1.3		10.1 month

Appendix 5: List of JCC meeting

JCC	Date	Chairperson	Main agenda
1st JCC	3rd April, 2007	Deep Bahadur Swanr	Discussion Annual Plan of Operation (2007)
2nd JCC	9th May, 2008	Mr. Bhart Prasad Upadhyay	Approval on the contents of Plan of Operations Discussion on major issue pointed out in the comment from consultation study team
3rd JCC	12th Aug, 2008	Mr. Bhart Prasad Upadhyay	The Plan of Operation of the project should be focus more on technical transferred to counterparts for capacity building, to deploy a long term Project coordinator for project management, amendment on record of discussion
4th JCC	6th Nov, 2008	Mr. Bhart Prasad Upadhyay	Efforts to fulfill recommendations agreed in the second JCC Consideration for the coming Mid-term Evaluation Study New Direction Idea proposed by the Consultation Study Team
5th JCC	27th May, 2009	Mr. Fulgen Pradhan	Approval of the revised indicators of PDM for Mid-term Evaluation
6th JCC	15th June, 2009	Mr. Fulgen Pradhan	Approval of the report of Mid-term review and revised PDM and PO
7th JCC	18th March, 2010	Mr. Ananda Ratna Bajracharya	Approval of the findings by Consultation Study Team
8 th JCC	4 th July, 2011	Mr. Vijoy Kumar Mallick	Approval of the Joint Terminal Evaluation Report

Appendix 6: Program Schedule of Sericulture Policy Drafting Workshop

Promotion of Quality Cocoon Production and Processing Project
(DOIED/JICA Nepal) Hariharbhawan
Workshop on Sericulture Policy Formulation
Tentative Program Schedule

24th May --- Opening Phase

"Master of Ceremony" : Madhab Prasad Lamsal

S.N	Time	Program	In charge
1	9:00-9:30	Registration of participants	Kashab Raj kafle
2	9:30-10:00	Tea time	All Participants
3	10:00-10:15	Chairperson of program, chief guest of programs and participants to take own and responsibility for program.	
4	10:15-10:20	Welcome speech	Durga Prasad Duwadi
5	10:20-10:30	Introduction of participants	All participants
6	10:30-10:40	Opening ceremonial ritual	
7	10:40-11:40	Presentation of the Sericulture Development National Policy	Ganesh Kumar K.C Consultant
8	11:40-12:50	The speech of creative suggestion for sericulture policy	
9		Chief guest	Sankar Pandey
10	12:50-13:00	Thanks for participants	Bhakta Raj Palikhe
11	13:00-13:15	Closing for program by Chairperson	
12	13:15-14:15	Lunch break	
13	14:15-14:25	Appointing Chairperson for this phase	
14	14:25-14:40	Group division	All participants
15	14:40-16:40	Group discussion	All participants
16	16:40-16:45	Tea time	
17	16:45-17:00	Closing the phase by Chairperson	

25th May --- Discussion Phase

S.N	Time	Program	In charge
1	9:30-10:00	Tea time	All participants
2	10:00-10:10	Taking the place by president	
3	10:10-12:30	Grouping discussion and presentation	
4	12:30-13:30	Lunch break	
5	13:30-14:30	Presentation of National Sericulture Development Policy by groups – discussion and suggestion	Ganesh Kumar K.C
6	14:30-14:40	Thanks to all	
7	14:40-15:00	Closing ceremony speech by Chairperson	

Appendix 7: Participant List of Sericulture Policy Drafting Workshop

On 24-25 May, 2009

Hotel Himalaya, Kupondole, Lalitpur

S.N	Name	Post	Address/organization
1	Mr. Ganesh Kumar K.C.	Consultant	Sanepa, Lalitpur
2	Dr. Samundra Lal Joshi	Consultant	Patandhoka, Lalitpur
3	Dr. Hiroaki Yanagawa	Chife Advisor	PQCPPP
4	Ms. Yuko Shibuya	P Co-ordinator	PQCPPP
5	Mr. Durga Prasad dawadi	Senior I E	DOIED
6	Mr. Bhakta Raj Palikhe	SSDO	Sericulture Khopasi Office
7	Mr. Keshav Raj Kafle	Ind. Ento.	DOIED
8	Mr. Madhav Lamsal	Extn Officer	DOIED
9	Mr. Shankar Neupane	Officer	DOIED
10	Ms. Gita Khadka	JTA	DOIED
11	Mr. Raghu Shrestha	Project Officer	PQCPPP
12	Ms. Sabina Shrestha	Helper	PQCPPP
13	Jagannathn Sharma	JT	DOIED
14	Jagadish B. Shrestha		PPD
15	Ram B. Rajbahak	Driver	PQCPPP
16	Bal Bahadur Lama	Driver	
17	Pradeep chaudhari	Driver	
18	Binod Kharel	Driver	DADO Kathmandu
A	Central Level/policy Level		
19	Sankar Prasad Pandey	Secretary	MOAC
20	Biju Kumar Shrestha	Agri/Policy sector	NPC Singadarbar
21	Mr. Laxman Prasad Pokhrel	Joint Secretary Ad.	MOAC
22	Mr. Purshotum Mainali	Joint Secretary planning	MOAC Singadarbar
23	Mr. Fulgen Pradhan	DG	DOA Hariharbhawan
24	Mr. Bishnu Pd. Aryal	DDG Planning	DOA Hariharbhawan
25	Dr. Fanindra P Neupane	Member	NAST Khumaltar
26	Dr. Resham B. Thapa	Professor	IAAS Rampur
27	Dr. Yubak Dhvaj GC	Entomologist	IAAS Rampur
28	Mr. Prakash Raj Bista	Ext Officer	Planing Sec. DOA
29	Mr. Dinesh Acharya	Agri Officer	Planing Section MOAC
B	Seri farm Level		
30	Mr. Narahari Prasad Ghimire	SDO	Seri Khopasi
31	Mr. Kaman singh Thapa	SDO	Seri Khopasi
32	Mr. Madhusudan Ghimire	SDO	Seri Dhunibesi
33	Mr. Top Bahadur Reshmi	SDO	Seri Syangja
34	Mr. Ghan Bahadur Thapa	SDO	Seri Pokhara

35	Mr. Damadar Devkota	SDO	Seri Bandipur
36	Mr. Fanindra Devkota	SDO	Seri Bhandara
C	DADO and Famer Level		
37	Mr. Mahendra Man Shrestha	SADO	DADO Dhading
38	Mr. Achut P.Dhakal	SADO	DADO Kathmandu
39	Mr. Iswor P. Rijal	Chief	Plant Qrantine
40	Mr. Basu Deb Bhandari	PPO	DADO Kathmandu
41	Mr. Rukmangat Kafle	Farmer	Syangja Walling
42	Mr. Jit Bahadur Hhatrai	Farmer	Chitwan, Madi
43	Mr. Uddhav Kharel	Farmer	Kavre, Dapcha
44	Mr. Ganesh Bahadur Ghale	Farmer	Dhading Nalang
45	Mr. Kamal Nath Wagle	P.P.O	Chitwan
46	Mr. Dili Prasad Timilsina	Farmer	Dhading Nalang, Baireni
D	Private /NGO/ Co-operative		
47	Mr. Bharat Prasad Upadhyay	Chairman	Plant Protection Society
48	Mr. Gopal Prasad Kafle	Chairperson	Apinet
49	Mr. Tek NAYaran Pathak	Manager	Madi Co-operative
50	Mr. Lakpa Shrepa	MD	Everest Art Paper
51	Mr. R.C Adhakari	Secretary	Dapcha resham
52	Dr. Shree Krishna Shrestha	President	Pro. Public
53	Mr. Puran Bahadur Baniya	Chief	Indicom Soe Pvt,Ltd
54	Mr. Sankar Pandey	Chair man	SAN
55	Mr. Shayambhu Ratna Tuladhar	Member	SAN
56	Mr. Suman Bhagat	Member	SAN
57	Mr. Shivilal Shrestha	President	DSDP
58	Mr.Ganesh Khatiwada	Media Person	Nepali Times
59	Ms. Durga Gautam	Member	Kalaguthi
60	Mr. Anup Paudel	Camera man	AICC
61	Mr. Binod Sapkota	Reporter	AICC
62	Mr. Satish Sharma	Reporter	Mulyankan

Appendix 8 : Training List of PQCPPP

Training Detail(Domestic)

Subject	Date	Nos.	Station										Others	Remarks
			Khopashi	Dhunibeshi	Bandipur	Pokhara	Syangia	Bhandara	Itahari	Dhankuta	Chitapol			
Officer Level Training														
Human Skill Dev. Training	8-13 March, 2009	15	2	2	1	1	1	2	2	1	1	2	DOIED DADO Dhading	
Technical Manual Production Training on Silkworm Rearing Technology	25-27 June, 2009	15	2	2	1	1	2	2	1	1	1	2	MOAC, DOIED	
Technical Manual Production Training on Mulberry garden management	29-30 Nov., 2009	13	2	2	1	1	1	1	1	1	1	3	DOIED	
Total		43	6	6	3	3	4	5	3	3	3	7		
JT/JTAs Level training														
Feeding of Adult Silkworm and Mounting Technology Training	1.Oct.~ 3.Oct.2007	6	6											
Seed Cocoon Production and Management Training	11.Aug. ~ 15.Aug 2008	12	2	2	2	2	2	2	1	1	1			
Human Skill Development Training	8-12 Feb., 2009	16	1	3	1	2	2	3	1	0	1	2	DADO Dhading, DOIED	
Zaguri / Textile Production Training for Dhunibesi JTA and one farmer (40 days) at Kalaguthi	26 July - 9 Sep., 2009	1		1										
JT/JTA/Silk Mobilizer Training on silkworm rearing using technical manual	9-10 March, 2010	14	6	2	0	1	0	0	0	0	0	5	1DOIED, 5 SM	

Zaguri / Textile Production Training for Dhunibesi JTA and one farmer (30 days) at Kalaguthi	1-30 July, 2010	1		1									
Technical Training using the illustrated Technical Manual on Mulberry Garden Management and Cocoon Assessment	14-16 Feb., 2011	18	7	2							2	7	2DOIED, 5 SM
Technical Training using the illustrated Technical Manual on Silkworm Rearing, Mulberry Garden Management and Cocoon Assessment	21-24 Feb., 2011	21		1	3	2	3	4	5	2		1	1 SAN
Total		89	15	12	3	5	4	5	2	1	2	7	

Subject	Date	Nos.	Dhading District					Private Sector	Madi Coop	Chainpur Coop	NGO	Others	Remarks
			Nalang	Salang	Baireni	Kumpur	other VDC						
Farmer Level training													
Silk Mobilizer Orientation Training, Dhunibesi, Dhading	19 Aug. ~ 21 Aug., 2007	6	2	2	1	1							
Zaguri Training (Basic Course), Dhunibesi, Dhading	2 Dec. ~ 12 Dec., 2007	10	3	2	1	1	1					2	1Sanko 2 Nuwa
Zaguri Training (Refresher Course), Dhunibesi, Dhading	3-7 Feb., 2009	8	3	2	1	1	1						
Zaguri and Weaving Training (Basic Course) Kalaghuti, KTM	13-22 Feb., 2009	12		1			1	8	2				

Zaguri Training (Basic Course), Dhunibesi, Dhading	1-9 Mar., 2009	10	4	4	2								
Zaguri Training (Skill-up), Nalang VDC, Dhading	17-25 May, 2009	7	7										
Farmer Training on Mulberry Orchard Management and Silkworm Rearing, Dhunibesi, Dhading	8-22 June, 2009	18	6	4	1	2	5						
Silk Mobilizer and Leader Farmers Refresher Training on both technical and social mobilization aspects	9-13 Aug., 2009	13	4	4	2	1	0				1	1	PQCPPP
Zaguri / Textile Production Training for Dhunibesi JTA and one farmer (40 days) at Kalaguthi	26 July - 9 Sep., 2009	1	1										
Silk Mobilizer Refresher Training	9-13 Aug., 2009	13	4	4	2	1					1	1	PQCPPP
Zaguri Basic Training at Dhunibesi	28 Oct.-7 Nov., 2009	9	3	3	2	1							
Zaguri Basic Training at Kalaguthi	18-27 Nov., 2009	10					2	8					
Zaguri Basic Training at Kalaguthi	4-13 Dec., 2009	10		2				4				4	1 PKR SDO, 1 Bhandara, 1 Syanjya, 1 Bandip
Zaguri Training for Baireni VDC at Dhunibesi	15-24 Dec., 2009	10			10								
Zaguri Refresher Training at Kalaguthi	25 Dec., 2009 - 3 Jan., 2010	10			2		2	6					

Weaving Training 1 at Kalaguthi	21-30 Jan., 2010	12	7									5	2Syanja, 1Bandip1PKR, 1Bhandar
Zaguri Basic Training at Dhunibesi	2-11 Feb., 2010	10	4	4	2								
Weaving Training 2 at Kalaguthi	12-21 Feb., 2010	10	2	3	1			1				3	2Syanja, 1Bhandr
Zaguri Refresher Training at Dhunibesi	1-10 March, 2010	9	1	4	4								
Nalang Zaguri Training by WGA	2-6 May, 2010	8	8										
Salang Zaguri Training at Salang	30 Apr.-9 May, 2010	10		10									
Silkworm Rearing Training at Dhunibesi (Partial support)	12-26 May, 2010	12			5		7						Bhumisthan
Zaguri / Textile Production Training for Dhunibesi JTA and one farmer (30 days) at Kalaguthi	1-30 July, 2010	2		1								1	Dhunibesi
Zaguri Charka Repairing/Maintenance Training for Carpenters at Bhaktapur	27-28 July, 2010	4	1	1	1		1						
Zaguri Basic Training at Kalaguthi	12-21 Aug., 2010	10						7				3	2Bhandr 1 Syanja
Weaving Basic Training at Kalaguthi	23 Aug.-1 Sep., 2010	10						7				3	2Bandr 1Syanja
Entrepreneurship Development Training for Serifarmers	14-19 Nov., 2010	20	5	5	5		2		1	1	1		

Zaguri Refresher Training	14-23 Nov., 2010	10						7	1	1		1	Syanja
Ikat Weaving Training	28 Nov.-4 Dec., 2010	10						7				3	1 PKR 1 Syanja, 1 Bandip
Zaguri Basid Training	4-13 Nov., 2011	10	2	2			6						
Total		294	67	58	42	8	28	55	4	2	3	27	

Capacity Development Program (Oversea)

Subject	Date	Nos.	Station						Others		
			DOIED	Dhunibeshi	Khopashi	Chitapol	Shyanja	PKR	DADO	DOA	PQCPPP
Officer/JT/JTA Level training (India)*											
Sericulture Administrative Course	13~27 Oct., 2008	1	1								
Technical Training on Bi-Voltine Sericulture Rearing Technology	2 Nov.~22 Dec., 2008	2		1		1					
Sericulture Administrative Course	22 Feb.-8 Mar., 2010	1	1								
Technical Training on Bi-Voltine Sericulture Rearing Technology	9 Mar.-31 May, 2010	3		1			1	1			
Sericulture Administrative Course	14-30 Sep., 2010	3	1						1	1	
Technical Training on Bi-Voltine Sericulture Rearing Technology	24 Oct.2010-19 Jan., 2011	3	1	1				1			
Sericulture Administrative Course	1-15 Nov. 2011	2			1					1	
Technical Training on Bi-Voltine Sericulture Rearing Technology	16 Nov.2011-8 Feb., 2012	2	2 (PKR, Bhandara)					1			
1		13	4	3	0	1	1	2	1	1	0
Officer Level Observational Tour Program											
Study Excursion to Lao-PDR & Thailand	15~25 Jan., 2008	5	1	1	1					1	1
Survey visit to India	2~7 March, 2008	5	1		1						3
Total		10	2	1	2	0	0	0		1	4

* The cost of India training was borne by JICA India.

Appendix 9: Training and Demonstration List that Dhunibesi JT/JTAs conducted for sericulture farmers

1) Technical Manual Training by JT to seri farmer, Autumn 1st 2010

S.N.	Name of JT	When	Where	# of farmers
1	Nilesh Kunwar	3-Sep-10	Salang	34
2	Bhagawan Pr. Pokharel	13-Sep-10	Baireni, Nalang	22
3	Baidya Nath Purbe	12-Sep-10	Naya Basti, Nalang	25
4	Bhagawan Pr. Pokharel	19-Sep-10	Sankosh	1

2) Technical Manual Training by JT to seri farmer, Autumn 2nd 2010

S.N.	Name of JT	When	Where	# of farmers
5	Nilesh Kunwar	25-Oct-10	Salang	24
6	Bhagawan Pr. Pokharel	26-Oct-10	Baireni, Nalang	21
7	Baidya Nath Purbe	26-Oct	Naya Basti, Nalang	21
8	Jiwach Mandal	25-Oct-10	Baltar, Baireni	26
9	Jiwach Mandal	26-Oct-10	Tuktin, Baireni	26
10	Jiwach Mandal	31-Oct, 1st-Nov-2010	Bhumisthan	30

3) Technical Manual Training by JT to seri farmer, Spring 2nd 2011

S.N.	Name of JT	When	Where	# of farmers
11	Baidya Nath Purbe	26-27-May-11	Naya Basti, Nalang	26
12	Bhagawan Pr. Pokharel	26-27-May-11	Salang (Akala Coop)	21
13	Bhagawan Pr. Pokharel	28-29-May-11	Salang (Bahara group)	11
14	Jiwach Mandal	28-29-May-11	Baireni (Maheshphat and Balter group)	18
15	Baidya Nath Purbe	16-17-June-11	Nalang (Manakamana group)	20
16	Jiwach Mandal	16-17-June-11	Aapchour & Tuktin, Baireni	23
17	Jiwach Mandal	18-19-June-11	Bhumisthan (Kalidevi & Makhmali group)	39
18	Baidya Nath Purbe	18-19-June-11	Gumbadada, Bhumisthan	32

4) Technical Manual Training by JT to seri farmer, Autumn 2nd 2011

S.N.	Name of JT	When	Where	# of farmers
19	Bhagawan Pr. Pokharel	3-4-Nov-11	Salang (Akala Coop)	30
20	Baidya Nath Purbe	5-6-Nov-11	Nalang (Gautam Budha group)	26
21	Bhagawan Pr. Pokharel	5-6-Nov-11	Bhumistha (Kalidevi & Makhami Group)	35
22	Jiwach Mandal	9-10-Nov-11	Baireni (Maheshphat and Baltar group)	19

5) Demonstration by Dhunibesi staff to sericulture farmer groups

S.N.	Date	Place	Topic	# of farmers
1	5-Apr-09	Kumpur	Disinfection using Sanitech	2 farmers+5SM
2	1-Jul-09	Nalang drying facility	Drying cocoon	8 farmer+2SM
3	12-May-10	Salang CRC	Disinfection method using formalin	39
4	19-May-10	Nayabasti, Nalang	Disinfection method using Sanitech	20
5	2-Jun-10	Baltar, Baireni	4th Instar rearing method	12
6	15-Jun-10	Nalang CRC	Mountage method	24
7	25-Aug-10	Baltar, Baireni	Formalin disinfection method at farmers' rearing rooms how to apply lime throughout the rearing period	3 farmers +5 SM
9	2-Sep-10	Gairitole,	3rd inster rearing method	12

		Bhumisthan		
10	14-Sep-10	Salang Meeting room	Mountage management method	29
11	23-Sep-10	Nalang drying facility	Drying cocoon	5 farmers +2 SM
12	7-Oct-10	Kalidaha, Nalang	Formalin disinfection method	11

Appendix 10: List of interaction meeting

(C) Interaction Meeting

1	Interaction Meeting (Govt, PS, PQCPPP)	7 Feb, 2009	Dhunibesi	Chief Advisor, Short Term Expert (Product Development), Project Coordinator of PQCPPP / Officers & JT, JTA of Dhunibesi / Everest Art Paper (PS) / Program Director & Officer of DoIED /
2	Interaction Meeting (PS, farmer, PQCPPP)	19 Feb., 2009	Nalang	Product Development Expert, PC / EAP(PS) / SM, Seri farmers
3	Interaction Meeting (Govt, NGO, Silk Mobilizer, PQCPPP)	2 March, 2009	Dhunibesi	PM, Officer, PC / Chief, Officer, JT, JTA of Dhunibesi / NGO' Staff / Silk Mobilizers /
4	Interaction Meeting (Govt, NGO, Silk Mobilizer, PQCPPP)	22 April, 2009	Dhunibesi	PD, PC / Officers Of SDO, Chief / Officers / JT, JTA Of Dhunibesi / NGO Staffs /
5	Interaction Meeting (PS, farmer, PQCPPP)	28 April, 2009	Salang	PC, PA / EAP(PS) / SM, Seri farmers
6	Interaction Meeting (Govt, PS, farmer, PQCPPP)	24 June, 2009	Dhunibesi	PM, Short Term Expert (Product Development), Mr. Adhikari (Baireni farmer) / Everest Art Paper (PS)
7	Interaction Meeting / Study tour (Govt, PS, farmer, PQCPPP)	11 Nov., 2009	ACP & Mahaguthi	Product Development Expert, PC / ACP(PS) / JT of Dhunibesi / SM & Seri farmers
8	Interaction Meeting (Govt, PS, PQCPPP)	15 Nov., 2009	DOIED	Product Development Expert / WGA(PS) / PD of DOIED
9	Interaction Meeting / Study tour (Govt, PS, farmer, PQCPPP)	17 Nov., 2009	Nalang & Baireni	CA, Product Development Expert / ACP, Mahaguthi, WGA (PS) / JT of DOIED / Dhunibesi Chief / SM, Seri farmers
10	Interaction Meeting / Study tour (Govt, PS, farmer, PQCPPP)	18 Nov., 2009	ACP & Mahaguthi	PC / ACP(PS) / JT of Dhunibesi / SM, Seri farmers
11	Interaction Meeting (Govt, PS, PQCPPP)	15 April, 2010	Salang	PC, PA / Mahaguthi (PS) / JT of Dhunibesi / SM, Seri farmers
12	Interaction Meeting (Govt, PS, Farmer)	24 April, 2010	Baireni	PD / SK Handicraft, WGA (PS) / SM, Seri farmer
13	Interaction Meeting (Govt, PS, farmer, PQCPPP)	17 June, 2010	Baireni	Product Development Expert / PD / EAP (PS) / SM, Seri farmer Journalist
14	Interaction Meeting (Govt, PS, farmer, PQCPPP, NGO)	1 July, 2010	Nalang	Product Development Expert / Officer of DOIED / Dhunibesi Chief / Women Guidance Association (PS) / ICDC (NGO), Seri farmers
15	Interaction Meeting (Govt, PS, farmer, PQCPPP, NGO)	2 July, 2010	Salang	Product Development Expert / JTA of DOIED / Dhunibesi Chief / Mahaguthi (PS) / ICDC (NGO) / SM, Seri farmers
16	Interaction Meeting (Govt, farmer, PQCPPP, NGO)	2 Nov, 2010	Baireni	Product Development Expert, PC / PM, Officer of DOIED / Dhunibesi Chief / SM, Seri farmers
17	Interaction Meeting (Govt, PS, PQCPPP)	10 Nov, 2010	Baireni	PA / Officer of DOIED / ACP (PS) / Seri farmers
18	Interaction Meeting (Govt, PS, PQCPPP)	21 Nov, 2010	Salang	CA, Product Development Expert / Mahaguthi (PS) / PD of DOIED / Dhunibesi Chief

Appendix 11: Program Schedule of Workshop on Promotion of Zaguri Silk**Date:** 22 June, 2010, Tuesday**Venue:** Himalaya Hotel, Kupondole, Lalitpur**Program:**

Master of Ceremony: Madhav Prasad Lamsal

Registration and tea/coffee (9:30-10:30)			
A.	Inauguration session (10:30-12:00)	Designation	Remarks
1	Chair Person	DDG, DOA	
2	Chief Guest, guests and participants	Secretary/Joint Secretary, MoAC/All Participant	
3	Inauguration	Secretary, MOAC	
4	Jagadish Bhakta Shrestha	Program Director, DOIED	Welcome speech
5	Dr. Hiroaki Yanagawa	Chief Advisor, PQCPPP, JICA	Opening remarks
6	Durga Prasad Dawadi	Manager, PQCPPP, /DOIED	The objective of the workshop and policy of DOIED/Government on Zaguri silk production.
7	Speech		
	Ramnath Adhikari	Farmer and Zaguri Silk Producer	
	ACP/Mahaguthi/WGA/Kalaguthi	Entrepreneur	Representing all Non Governmental sectors
	Chief Guest	Inauguration speech	
8	Closing Remarks	Chair Person	
	Lunch (12:00-13:00)		
B	Technical Session (13:00-16:30)		
	Chairperson	.....
1	Ms. Eriko Kawaguchi (13:00-13:15)	JICA expert, PQCPPP, JICA	General information of zaguri silk
2	Ms. Revita Shrestha (13:15-13:30)	Programme Director, Association for craft Producers (ACP)	Product development
3	Ms. Uttara Malakar (13:30-13:45)	Procurement Manager, Mahaguthi	Product development
	Discussion (13:45-14:00)		
4	Mr. Akio Yamaguchi (14:00-14:15)	JICA expert, PQCPPP, JICA	General information of cocoon production
5	Mr. Surendra Bhandari (14:15-14:30)	Weaving Instructor, Kala Guthi	Technical advice on zaguri silk
6	Ms. Mohinee Maharjan (14:30-14:45)	President, Women Guidance Association	Empowerment of local women through zaguri silk production
	Tea break (14:45-15:00)		
7	Mr. Madhu Sudan Ghimire (15:00-15:15)	Sericulture Development Officer, PQCPPP, DOIED	Village-based production of zaguri silk
8	Mr. Bhakta Raj Palikhe (15:15-15:30)	Programme Chief, Kopashi SDD, DOIED	Approach for production of zaguri silk in Govt. station
9	Ms. Bandhana Jha (15:30-15:45)	Industrial Entomologist, PQCPPP, DOIED	Findings from questionnaire on brand name of Nepalese silk
	Discussion (15:45-16:00)		
10	Closing (16:00-16:30)	Director, PQCPPP, DOIED	Closing remarks

Appendix 12 : Participant list of Workshop on Promotion of Zaguri Silk on 22 June, 2010

S.N	Name of Participants	Designation	Office/ Organization	Address/ Contract
A	Government Participants- 25		MOAC-8, DOA-15, NPC-3	
1	Dr. Hari Dahal	Joint Secretary (Gender)	MOAC	Singha Durbar, KTM
2	Dilli Ram Sharma	Joint Secretary	MOAC	Singha Durbar, KTM
3	Dr. Hari Babu Tiwari	Senior Economist	MOAC	Singha Durbar, KTM
4	Bishnu Prasad Aryal	Deputy Director General	DOA	Hariharbhawan, Lalitpur
5	Kanchan Pandey	Senior Planning Officer	DOA	Hariharbhawan, Lalitpur
6	Rajan Nepal	Law officer	DOA	Hariharbhawan, Lalitpur
7	Janaki Prasad Khanal	Regional Agri Director	DOA	Hariharbhawan, Lalitpur
8	Deepak Khatri		MOAC	
9	Biju Kumar shrestha	Senior Officer	NPC	Kathmandu
10	Deepak Baral		MOAC	
11	Bal Bahadur	Khopasi Driver	DOA	Khopasi, Kavre
12	Gunga Prasad Yadav		DOA	
13	Ram Gopal Panch		DOA	
B	DOIED/CP/Seri farms		DOIED-7, Farms-13	
14	Jagadish Bhakta Shrestha	Project Director	DOIED	Hariharbhawan, Lalitpur
15	Durga Prasad Dawadi	Manager/Senior Industrial Entomologist	DOIED	Hariharbhawan, Lalitpur
16	Madhav Prasad Lamsal	Agri Extension Officer	DOIED	Hariharbhawan, Lalitpur
17	Bandana Jha	Industrial Entomologist	DOIED	Hariharbhawan, Lalitpur
18	Madhusudhan Ghimire	Industrial Entomologist	DOIED	Hariharbhawan, Lalitpur
19	Bhakta Raj Palikhe	Senior Sericulture Officer Kopasi	DOIED	Kopasi
20	Kaman Singh Thapa	Senior Sericulture Officer Kopasi	DOIED	Kopasi
21	Krishna Bahadur Shrestha	Sericulture Officer	DOIED	Chitapur
22	Raj Narayan Singh	Sericulture Officer	DOIED	Dhunibesi
23	Nilesh Kunwar	Officer	DOIED	Dhunibesi
24	Tara Timalisina	JTA	DOIED	Dhunibesi
25	Damodar Devkota	Sericulture Officer	DOIED	Bandipur
26	Ghan Bahadur Thapa	Sericulture Officer	DOIED	Pokhara
27	Tulsi Ram Dhungana	Sericulture Officer	DOIED	Syanja
28	Fanindra Devkota	Senior Sericulture Officer	DOIED	Bhandara
29	Ragnath Adhikari	JTA	DOIED	Bhandara
30	Binay Kumar Shah	Sericulture Officer	DOIED	Dhankuta
31	Jagannath Sharma	JT	DOIED	Hariharibhawan
32	Gita Kafle	JTA	DOIED	Hariharibhawan
33	Suran k.Shrestha	Driver	DOIED	Hariharibhawan
34	Achyut Thapa	Driver	DOIED	Hariharibhawan
35	Sadhuram Pandit		DOIED	

36	Rajdev		DOIED	
C	Private Sector			
37	Puran Baniya		SAN	
38	Suman Bnagai		SAN N.P.C	
39	Shanker Pandey	President	SAN	
40	Tara Bahadur Karki		SAN	
41	Anmol Raj Tuladhar	Member	SAN	
42	Mangal Shahi	Driver	SAN	
	Handicraft Group-10			
	8 Associates		Federation of Handicraft Associations of Nepal	Thapatali, KTM
43	Mr. Hari Gopal Chyashi	Proprietor	Nepal Allo Silk, Khichhen, Bandipur	
44	Ms. Revita Shrestha	Program Director	ACP	Ravi Bhawan, Kathmandu
45	Mr. Gananath Parajuli	Textile Coordinator	ACP	Ravi Bhawan, Kathmandu
46	Ms. Anu Manandhar	Production Officer	ACP	Ravi Bhawan, Kathmandu
47	Sudha Maharjan	Kirtipur Woman Weaving group	ACP	Ravi Bhawan, Kathmandu
48	Ms. Uttara Malakar	Procurement Officer	Mahaguthi	Kupondole, Lalitpur
49	Ms. Yashoda Pathak		Kalaguthi	Lalitpur
50	Mr. surendra Bhandari	Training Officer	Kalaguthi	Lalitpur
	Fair trade Group- 11			
51	Mr. Tek Nayaran Pathak	Member	Someshwar Seri Cooperatives,	Chitwan
52	Ms. Shila Tamang	Member	Kunaghat Seri Cooperative	Chitwan
53	Ms. Juni Tamrakar	Proprietor	Everest Art Paper	Lalitpur
54	Mr.RamChandra Adhakari	Director		Kavre
55	Mr. Rajan Dawadi		ICDC,	Dhadingbesi, Dhading
56	Mr. Murari Prasad Acharya		ICDC,	Dhadingbesi, Dhading
57	Ms. Mohinee Maharjan	President	WGA	Jamal, Kathmandu
58	Ms. Sunita Chaudhari		WGA	Jamal, Kathmandu
59	Ms. Santoshi		Kalaguthi	Lalitpur
60	Mr. Achute Rana			
61	Mr. Eak Raj Pandey	Pashmina Art		
62	Vevekanand Mishra	Guru Pashmina Udyog		
63	Harka B. Chapagai	Shomeshar Silk Co-op ltd		
64	Ishwor Gopal Pardhan			Bandipur, Tanahun
65	Sita Shrestha		WGA	Jamal, Kathmandu
66	Shiva Lal Shrestha		DSDP	
67	Jit Bahadur Khadka		NPIA	
68	Bashundhara Acharya	Nashela silky wool		
69	Shreedhav Khanal		NPIA	
70	Laxmi Pantha		Kalaguthi	
D	Seri-farmers /NGO			
71	Hom Narayan	Silk Mobilizer	Salang	Salang

	Shrestha			
72	Tek Bahadur Thapa	Silk Mobilizer	Salang	Salang
73	Shanti Lama	Silk Mobilizer	Nalang	Nalang
74	Surya Timalsina	Silk Mobilizer	Nalang	Nalang
75	Raju Katiwada	Silk Mobilizer	Baireni	Baireni
76	Chali Maya Thapa	Seri Farmer	Salang	Salang
77	Uma Thapa	Seri Farmer	Salang	Salang
78	Kanchi Maya Ghale	Seri Farmer	Nalang	Nalang
79	Chikuni Tamang	Seri Farmer	Nalang	Nalang
80	Ramnath Adhakari	Seri Farmer	Baireni	Baireni
81	Prekshya Dahal	Seri Farmer	Baireni	Baireni
82	Bed Kumari Tamang	Seri Farmer	Bhumisthan	Bhumisthan
E	Project			
83	Dr. Hiroaki Yanagawa	Chief Advisor	PQCPPP	Hariharibhawan, Lalitpur
84	Ms. Eriko Kawaguchi	Textile Development Expert	PQCPPP	Hariharibhawan, Lalitpur
85	Mr. Akio Yamaguchi	Sericulture Extension Expert	PQCPPP	Hariharibhawan, Lalitpur
86	Ms. Yuko Shibuya	Project Coordinator / Farmers Group	PQCPPP	Hariharibhawan, Lalitpur
87	Mr. Raghu Shrestha	Project Officer	PQCPPP	Hariharibhawan, Lalitpur
88	Ms. Saraswati Thapa	Project Assistant	PQCPPP	Hariharibhawan, Lalitpur
89	Ms. Sabina Shrestha	Office Assistant	PQCPPP	Hariharibhawan, Lalitpur
90	Mr. Ram Bahadur Rajbahak	Driver	PQCPPP	Hariharibhawan, Lalitpur
F	Press			
91	Shreekrishna Subadi	Sagarmatha T.V.		KTM
92	Saraswati Dhakal	Karobar Daly		KTM
93	Himal Poudel	Image Channel		KTM
94	Bishnu Gautam	ABC T.V.		KTM
95	JP Shrestha	ABC T.V.		KTM
96	Anuj Raj	National T.V.		KTM
97	Shuvam Pradhan			KTM
98	Shreeram Padasainee	AICC		KTM
99	Subodman Ghimire	NTV		KTM
100	Suraj Shurma	AICC		KTM
101	Avesh Bajracharya	Sagarmatha TV		KTM

Appendix 13: Result of Spider-web Assessment on Institutional Development of Sericulture Farmers Groups

Assessment dates:

1st time: March 2009

2nd time: February 2010

3rd time: February 2011

S.N.	Category	Criteria	Full score	Nalang									Salang					
				Gautam Buddha Group			Manakamana Group			Pragatisil Group			Akala Group			Pragatisil Group		
				2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
1	Group Management	Making rules and following	4	3	4	4	3	4	4	3	4	4	3	-	4	3	-	4
		Participation of members in discussion	4	3	4	4	3	4	3	3	4	4	4	-	4	4	-	3
		Decision making	4	2	4	4	3	4	4	2	4	4	2	-	4	3	-	4
	Total		12	8	12	12	9	12	11	8	12	12	9	-	12	10	-	11
2	Program Management	Ability to make action plan	4	1	1	3	2	2	3	1	1	3	2	-	3	1	-	3
		Ability to work according to the plan	4	1	1	4	2	2	4	1	1	4	2	-	3	1	-	4
		Ability to encourage farmers in program management	4	3	4	4	3	3	4	3	4	4	3	-	3	3	-	4
	Total		12	5	6	11	7	7	11	5	6	11	7	-	9	5	-	11
3	Coordination	Coordination among organizations within VDC	4	2	2	3	2	3	2	2	2	3	2	-	3	1	-	2
		Coordination among line agencies, NGO/CBO, etc. within District	4	2	2	4	2	3	3	2	2	4	4	-	4	2	-	3
		Coordination with other sericulture groups/organization and private sector	4	1	3	4	1	3	3	1	3	4	1	-	3	1	-	3
	Total		12	5	7	11	5	9	8	5	7	11	7	-	10	4	-	8
4	Institutional Development	Division of responsibility	4	2	4	4	3	4	4	2	4	4	3	-	3	1	-	4
		Information sharing	4	3	4	4	2	3	4	3	4	4	3	-	4	2	-	4
		Skill development	4	3	3	4	3	4	3	3	3	4	3	-	4	2	-	3
	Total		12	8	11	12	8	11	11	8	11	12	9	-	11	5	-	11
5	Group Efficiency	Regular meeting/saving	4	4	4	4	4	4	4	4	4	4	4	-	4	4	-	4
		Record keeping	4	3	4	3	3	4	4	3	4	3	3	-	4	3	-	4
		Need identification and prioritization	4	1	2	4	2	2	3	1	2	4	3	-	4	1	-	3
	Total		12	8	10	11	9	10	11	8	10	11	10	-	12	8	-	11

Assessment dates:

1st time: March 2009

2nd time: February 2010

3rd time: February 2011

S.N.	Category	Criteria	Full score	Baireni												Kumpur		
				Chetna Group			Panchkanya Group			Bageshwori Group			Shankhadevi Group			Sundevi Group		
				2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
1	Group Management	Making rules and following	4	2	4	4	2	3	3	3	-	4	1	-	4	2	-	3
		Participation of members in discussion	4	3	4	4	2	2	3	3	-	4	1	-	4	3	-	3
		Decision making	4	2	4	4	2	3	4	2	-	3	1	-	3	3	-	4
	Total	12	7	12	12	6	8	10	8	-	11	3	-	11	8	-	10	
2	Program Management	Ability to make action plan	4	3	1	4	3	4	3	1	-	3	1	-	2	2	-	2
		Ability to work according to the plan	4	2	1	4	2	2	4	1	-	3	2	-	2	2	-	3
		Ability to encourage farmers in program management	4	2	4	2	3	3	2	2	-	3	1	-	2	2	-	2
	Total	12	7	6	10	8	9	9	4	-	9	4	-	6	6	-	7	
3	Coordination	Coordination among organizations within VDC	4	2	2	3	1	3	2	2	-	3	1	-	4	1	-	2
		Coordination among line agencies, NGO/CBO, etc. within District	4	3	3	4	2	4	3	2	-	3	1	-	3	3	-	2
		Coordination with other sericulture groups/organization and private sector	4	1	3	3	1	2	3	1	-	2	1	-	2	1	-	2
	Total	12	6	8	10	4	9	8	5	-	8	3	-	9	5	-	6	
4	Institutional Development	Division of responsibility	4	2	4	4	2	3	3	3	-	4	1	-	2	3	-	3
		Information sharing	4	3	4	3	3	4	4	3	-	3	2	-	3	4	-	4
		Skill development	4	2	3	4	2	4	4	2	-	3	1	-	3	2	-	3
	Total	12	7	11	11	7	11	11	8	-	10	4	-	8	9	-	10	
5	Group Efficiency	Regular meeting/saving	4	1	4	4	1	4	3	3	-	4	1	-	2	4	-	4
		Record keeping	4	1	4	4	2	4	3	3	-	4	2	-	3	3	-	3
		Need identification and prioritization	4	1	1	4	1	2	3	3	-	3	1	-	2	3	-	2
	Total	12	3	9	12	4	10	9	9	-	11	4	-	7	10	-	9	

Assessment dates:

1st time: March 2009

2nd time: February 2010

3rd time: February 2011

S.N.	Category	Criteria	Full score	Sankosh			Bhumisthan					
				Pravat Group			Kalidevi Group			Makhamali Group		
				2009	2010	2011	2009	2010	2011	2009	2010	2011
1	Group Management	Making rules and following	4	3	-	4	2	3	2	-	-	3
		Participation of members in discussion	4	3	-	3	2	2	4	-	-	4
		Decision making	4	3	-	4	2	3	4	-	-	4
	Total	12	9	-	11	6	8	10	-	-	11	
2	Program Management	Ability to make action plan	4	1	-	3	3	4	3	-	-	2
		Ability to work according to the plan	4	1	-	2	2	2	2	-	-	4
		Ability to encourage farmers in program management	4	2	-	2	3	3	3	-	-	2
	Total	12	4	-	7	8	9	8	-	-	8	
3	Coordination	Coordination among organizations within VDC	4	1	-	3	1	3	1	-	-	2
		Coordination among line agencies, NGO/CBO, etc. within District	4	1	-	3	2	4	3	-	-	1
		Coordination with other sericulture groups/organization and private sector	4	2	-	3	1	2	3	-	-	1
	Total	12	4	-	9	4	9	7	-	-	4	
4	Institutional Development	Division of responsibility	4	1	-	4	2	3	4	-	-	2
		Information sharing	4	4	-	4	3	4	4	-	-	4
		Skill development	4	3	-	3	2	4	3	-	-	4
	Total	12	8	-	11	7	11	11	-	-	10	
5	Group Efficiency	Regular meeting/saving	4	4	-	4	1	4	4	-	-	4
		Record keeping	4	3	-	4	2	4	4	-	-	1
		Need identification and prioritization	4	1	-	3	1	2	2	-	-	1
	Total	12	8	-	11	4	10	10	-	-	6	

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JT/JTA/Silk Mobilizer/Project Staff x? k|fljws ;]jf lbg cfPsf] ldlt :-

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Inspection Notebook

- 1) Name of the farmers:- Age:-
- 2) Village Name:-
- 3) Rearing Season :
- 4) Mulberry Garden Area : (Hect/Ropani)
- 5) Living house and silkworm rearing house are in same place ?
 - a) Yes b) No
- 6) What is the floor of silkworm rearing house ?
 - a) Concrete b) Soil c) Others

Silk worm rearing detail

7. Disinfection date on silkworm rearing:-

- 1) Third stages wakeup silkworm received day :-
- 2) Evenness arrangement of third stage wakeup silkworm:-
 - a) Excellent b) Good c) Bad
- 3) Third stages S/W molt start and stopped mulberry feeding day :-
- 4) Fourth stages S/W molt out starting and mulberry feeding day :-
- 5) Fourth stages S/W molt start and stopped mulberry feeding day:-
- 6) Fifth stages S/W molt out starting and mulberry feeding day :-
- 7) Mature S/W starting day :-
- 8) S/W mounting complete day :-
- 9) Cocoon harvesting day :-
- 10) Cocoon collection day :
- 11) Weight of cocoon :
 - a) Good Cocoon.....Rs/kg. b) Bad Cocoon.....Rs/kg.
- 12) Sales Price of Cocoon
 - a) Good Cocoon.....Rs/kg b) Bad Cocoon.....Rs/kg

Reference :- On the times of rearing period write your feeling in the following sentences.

- 1) Bad growing up mulberry.
- 2) Not sufficient mulberry are in rearing time.
- 3) Disease seen on S/W rearing time.
- 4) S/W evenness arrangement are bad in rearing period.
- 5) More than four days time taken in mounting.
- 6) Others, Write your feeling in the following on the time of rearing.

JT/JTA Silk Mobilizer, project staff's come to provide technical service, day :

Name :-	Name :-	Name:-
Signature:-	Signature:-	Signature:-
Date :-	Date:-	Date:-

CRC k|df0f-kq (CRC Certificate)

CRC sf] gfd M-

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&= ;fgf ls/f ljt/0f ug]{ k|0ffln M-

*= ljt/0f u/]sf] ;fgf ls/fsf] cj:yf M- s_w]/} /fd|f] v_c;n u_g/fd|f]

(= ljt/0f u/]sf] ufFp M-

s}lkmPt M- ls/f kfNg] ;dodf cfk[mnfO{ nfu]sf] s'/f n]Vg'xf]; .

!= lsDj'sf] kft j9]sf] g/fd|f] .

@= /]zd km'nsf] XofTrLË k|ltzt g/fd|f] .

#= ls/f kfNg] ;dodf lsDj' gk'u]sf] .

\$= ls/f kfNbf ls/fdf /f]u b]lvosf] .

%= ls/f kfNbf ls/f Ps}gf;sf] cj:yf geosf] .

^= o; jfx]s cGo, ls/f kfNbf cfk[mnfO{ nfu]sf] s'/f n]Vg'xf]; .

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JT/ JTA x? k|fljlws ;]jf lbg cfPsf] ldl t M-
ldlt M-
JT/ JTA sf] gfd M- JT/ JTA sf] gfd M-
x:tflf/ M- x:tflf/ M-

ldlt M-
JT/ JTA sf] gfd M-
x:tflf/ M-

CRC Certificate

Name of CRC:-

Name of Responsible person of worm rearing:-

The time and season of worm rearing:-

Brushing box:-

The types of silk worm:-

Hatching percentage of silk egg: - (%) (a) Very good (b) Good (c) bad

The date for disinfection of worm rearing room:-

Distribution date of small worm:-

The date of coming for JT/JTA for technical service:-

1. Date of brushing: - First stage of worm rearing Tempter.....Humidity.....

2. Date of molting for first stage and stopping feeding the mulberry leaf:-

The first stage of worm molting Tempter.....Humidity.....

3. Date of waking for second stage and providing mulberry leaf:-

Second stage worm rearing Tempter.....Humidity.....

4. Date of molting for second stage and stopping feeding mulberry leaf:-

Second stage molting Tempter.....Humidity.....

5. Date of waking for third stage worm:-

6. Date of distribution small worm:-

7. Distribution method of small worm:-

8. The condition of distribution small worm: - (a) Very good (b) Good (C) bad

9. The village of distributed:-

Remarks: - Please write to the time worm rearing.

1. The developing process of mulberry leaf isn't good.

2. The percentage of hatching not good for silk egg.

3. Not enough to mulberry in worm rearing time.

4. Presenting the disease in worm rearing.

5. Not to equal stage of worm rearing.

6. Please write to any other words as you wish.

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Date of coming for JT/JTA technical service.

Date: -

Date: -

Date:-

Name of JT/JTA: -

Name of JT/JTA: -

Name of JT/JTA:-

Signature: -

Signature:-

Signature:-