

Country Name	Integrated development model project for nature conservation in Jin Sha River Basin
People's Republic of China	

I. Project Outline

Background	Liangshan Yi Autonomous Prefecture in Sichuan Province (hereinafter referred to as "Liangshan Prefecture") is located in the Jinsha River Basin, which is the upper basin of the Yangtze River. In the prefecture, there was food shortage due to low productivity agriculture. Also, damage to the lives of the poor farmers caused by the soil runoff was a severe problem in the Jinsha River basin. A vicious circle was continuing in that farmers would compensate for the shortage of food and runoff of agricultural land by cultivating the steep mountain surface and overgrazing, which would further cause the soil erosion.				
Objectives of the Project	<p>This project aimed to form a project model regarding conservation of the ecological environment (with people's participatory methods) and agricultural and rural development (with enhancement of agricultural productivity) in Liangshan Prefecture, Sichuan Province, and to introduce the model within the two target counties (i.e. subject to the project's activities), through capacity development in participatory rural development in the five cooperation counties (i.e., subject to the project's cooperation) and demonstrations in the two villages in the two target counties, thereby maintaining and improving the ecological environment in the hilly areas with frequent soil erosion in the Jinsha River Basin in the prefecture.</p> <ol style="list-style-type: none"> Overall Goal: The ecological environment is maintained and improved in the hilly areas with frequent soil erosion in the Jinsha River Basin in Liangshan Prefecture. Project Purpose: A project model for sustainable development regarding conservation of the ecological environment (with people's participatory methods) and agricultural and rural development (with enhancement of agricultural productivity by improvement of cultivation technology, introduction of intensive crops, etc.) is formed through demonstrations in the two target villages, and the project model is introduced within the two target counties where the target villages are located. 				
Activities of the Project	<ol style="list-style-type: none"> Project Site: Ningnan County, Meigu County, Huidong County, Jinyang County, and Butuo County in Liangshan Prefecture, Sichuan Province as the cooperation counties (up to the second year of cooperation); among them, Ningnan County and Meigu County as the target counties (from the third year of cooperation) Main Activities: (1) Participatory rural development training for prefectures, counties, townships, villages and farmers, (2) Rural resource survey and formulation of rural promotion activity plans by participatory development methods in the five counties (villages), pilot activities in the two target counties (villages), establishment of a project model based on the monitoring results of pilot activities in the 2 counties (villages), (3) Development of dissemination plans, dissemination manual and training materials, training for related persons in the target counties (administrative staff, extension officers, farmers' leaders, etc.) to introduce the project model, etc. Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 11 persons Trainees Received: 22 persons Equipment: Office equipment Local cost: Travel, transportation, personnel, etc. </td> <td style="width: 50%; vertical-align: top;"> <p>Chinese Side</p> <ol style="list-style-type: none"> Staff Allocated: 37 persons Project office (Liangshan Prefecture), offices for experts (Ningnan County, Meigu County) Local cost </td> </tr> </table> 			<p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 11 persons Trainees Received: 22 persons Equipment: Office equipment Local cost: Travel, transportation, personnel, etc. 	<p>Chinese Side</p> <ol style="list-style-type: none"> Staff Allocated: 37 persons Project office (Liangshan Prefecture), offices for experts (Ningnan County, Meigu County) Local cost
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Project Period	June 2009 – May 2014	Project Cost	(ex-ante) 450 million yen, (actual) 473 million yen		
Implementing Agency	Government of Liangshan Yi Autonomous Prefecture (Liangshan Prefecture)				
Cooperation Agency in Japan	Sanyu Consultants Inc.; Japan Overseas Forestry Consultants Association				

II. Result of the Evaluation

< Special Perspectives Considered in the Ex-Post Evaluation >

Five villages in five counties were selected as the cooperation counties (villages) at the time of ex-ante evaluation. However, to achieve the Project Purpose by using the limited budget efficiently and effectively, the project decided to focus on the two target counties for its pilot activities from the third year, while inviting participants in the training in Japan from all the five cooperation counties. With this change of approach, the initial plan of conducting the pilot activities only with the maximum of 20 model farmers in each village was abolished. As a result, more farmers were directly involved in the project than expected at the time of the ex-ante evaluation.

1 Relevance

<Consistency with the Development Policy of (country name) at the Time of Ex-Ante Evaluation and Project Completion>

At the time of ex-ante evaluation and project completion, this project was consistent with the Chinese government's development

policies such as “The Eleventh Five-year Plan” (2006-2010) and “The 12th Five-year Plan” aiming at promoting the “new rural construction” (rural poverty reduction measures) and “conversion of cropland to forest²” (ecological environment conservation policy).

<Consistency with the Development Needs of (country name) at the Time of Ex-Ante Evaluation and Project Completion >

At the time of the ex-ante evaluation, as described in the “Background,” there was a need to improve the ecological environment in Jinsha River Basin in Liangshan Prefecture. Such needs continued to the time of ex-post evaluation.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with Japan’s ODA policy on “cooperation for dealing with global problems such as environmental problems” under the main development agenda of “realizing sustainable development” in the “Economic Cooperation Plan for China” (2001).

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement for the Project Purpose at the time of Project Completion>

The Project Purpose was mostly achieved by the time the project completion. Residents in one of the target counties participating in the pilot demonstration activity recognized that the ecological environment improved, but the survey results of the other county could not be obtained (Indicator 1). Cooperation was made to expand and maintain the project mode, and the budget for the poverty reduction program covering the entire Sichuan Province, to which the contents of this project was related, was adequately secured (Indicator 2). Meanwhile, the introduction of this project model within the target counties was conducted to a larger number of villages than planned (Indicator 3).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have continued until the time of ex-post evaluation. After project completion, the project model was not disseminated as a package developed by this project. Instead, the Chinese side took a stance that the package was for the project implementation period and that after project completion, it would adopt the constituents that are necessary and effective with the implementation settings at a given point of time. In the target counties (villages), some components of the project model such as basic needs assessment, rural resource assessment and participatory development training has been promoted and implemented as part of the national poverty reduction program since project completion to ex-post evaluation. Activities introduced as pilot activities under this project have also been implemented as part of the said poverty reduction program, and the number of participating farmers is generally higher than during the project implementation period.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has been achieved by the time of ex-post evaluation. In the poor areas of Sichuan Province, including all the villages in the target counties of this project, the poverty reduction program including “full penetration and improvement of education level,” “resettlement of migrant population of rural areas,” “repair of old houses and houses with the risk of collapse,” “separation of humans and domestic animals (improvement of livestock barns) in rural areas,” “pavement of village roads,” “supply of safe drinking water and electricity” were fully advanced by the government in each level particularly after 2015. It was confirmed by the implementing agency that the contents of this project were also implemented as part of the poverty reduction program. Among the components mentioned above, “separation of humans and domestic animals (improvement of livestock barns) in rural areas,” is consistent with one of the activities carried out under this project. With regard to “full penetration and improvement of education level,” and “resettlement of migrant population of rural areas,” the implementing agency responded that it referred to the experience and implementation details of this project. In addition, based on the data up to the time of ex-post evaluation sampled from the two target counties, it can be judged that the ecological environment has been maintained and improved as a result of “pavement of village roads” and supply of safe drinking water and electricity.” Although information was not available on other Jinsha River basin counties than the two target counties, the mentioned poverty reduction program has been extended to other counties in Liangshan Prefecture and implemented by respective county-level organizations. Therefore, we could presume that the maintenance and improvement of the ecological environment has been progressing in those counties as well.

<Other Impacts at the time of Ex-post Evaluation>

There was no negative impact of this project.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results					
(Project Purpose) A project model for sustainable development regarding conservation of the ecological environment (with people’s participatory methods) and agricultural and rural development (with enhancement of agricultural productivity by improvement of cultivation technology, introduction of	(Indicator 1) Percentage of residents who recognize that their production / living conditions and the ecological environment of the area improved, among the residents in the two target counties (two villages) who participated in the pilot demonstration activity of the project: 70%	Status of the Achievement: partially achieved (continued) (Project Completion) Recognition of residents (Surveyed in April 2013)					
		Labao Village, Ningnan County (No data available)			Luoju Village, Meigu County (all 189 households)		
		Improved much	Improved	No change	Improved much	Improved	No change
		Changes in production/ living conditions	N/A	N/A	N/A	22%	76%
Changes in the ecological environment	N/A	N/A	N/A	24%	72%	4%	

² The policy to encourage conversion of sloping cropland to forest.

intensive crops, etc.) is formed through demonstrations in the two target villages, and the project model is introduced within the two target counties where the target villages are located.		(Ex-post Evaluation) Recognition of residents (Surveyed in December 2018)																											
		<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">Labao Village, Ningnan County (all 205 households)</th> <th colspan="3">Luoque Village, Meigu County (all 246 households)</th> </tr> <tr> <th>Improved much</th> <th>Improved</th> <th>No change</th> <th>Improved much</th> <th>Improved</th> <th>No change</th> </tr> </thead> <tbody> <tr> <td>Changes in production/ living conditions</td> <td>30%</td> <td>69%</td> <td>1%</td> <td>41%</td> <td>58%</td> <td>1%</td> </tr> <tr> <td>Changes in the ecological environment</td> <td>39%</td> <td>61%</td> <td>0%</td> <td>24%</td> <td>73%</td> <td>3%</td> </tr> </tbody> </table>		Labao Village, Ningnan County (all 205 households)			Luoque Village, Meigu County (all 246 households)			Improved much	Improved	No change	Improved much	Improved	No change	Changes in production/ living conditions	30%	69%	1%	41%	58%	1%	Changes in the ecological environment	39%	61%	0%	24%	73%	3%
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(Indicator 2) The budget for extending and continuing the project model is secured by the administrative agencies concerned, and necessary coordination is made among the administrative agencies.	<p>Status of the Achievement: achieved (continued) (Project Completion)</p> <ul style="list-style-type: none"> In recent years, relatively abundant budget was allocated on projects contributing to living improvement in rural areas in China, and Science and Technology Bureau of Liangshan Prefecture plans to implement projects utilizing the results of this projects in 24 villages each in Ningnan County and Meigu County after project completion. Therefore, it seems that the budget for the expansion and continuation of the model is secured. Concerned agencies such as Provincial Science and Technology Bureau, County Science and Technology Bureau, Agriculture Bureau, Livestock Bureau, and Forestry Bureau for implementation of this project. (All names at that time) <p>(Ex-post Evaluation)</p> <ul style="list-style-type: none"> Sufficient budget has been ensured for the poverty reduction program. The implementing agency explained that the contents of this project have contributed to the quality improvement of the poverty reduction program. The County Education Bureau and Science and Technology Bureau conducted training jointly with other departments in the county (see Indicator 3). 																												
(Indicator 3) Number of villages where the project model was introduced and disseminated in the target counties (two counties) and the contents of the activities practiced: 40 villages	<p>Status of the Achievement: achieved (continued) (Project Completion)</p> <ul style="list-style-type: none"> Introduced to 56 villages in the two counties (While the contents of the practice is unknown, it is assumed that the project aimed up to introduction, given that the Project Purpose reads "... the project model is introduced ..."). <p>(Ex-post Evaluation)</p> <ul style="list-style-type: none"> Part of the model (basic needs assessment, rural resource assessment and participatory development for farmers) is linked to training and extension activities in the poverty reduction program particularly after 2015. In Ningnan County, training is provided four to five times a year for about 600 people in total. In Meigu County, training is provided three times a year for about 60 people each time. 																												
(Overall Goal) The ecological environment is maintained and improved in the hilly areas with frequent soil erosion in the Jinsha River Basin in Liangshan Prefecture.	(Indicator 1) The project model is disseminated in the Jinsha River Basin in Liangshan Prefecture (Number of counties and villages where the model is disseminated, the contents of the activities practiced, and the status of maintenance and improvement of the ecological environment): 90 villages	<p>(Ex-post Evaluation) achieved</p> <ul style="list-style-type: none"> In the poverty reduction program implemented in poor communities of Sichuan Province including Ningnan County (124 villages) and Meigu County (292 villages), part of the contents of this project has been adopted or referred to. As a ripple effect of the program, for example in Ningnan County, the plant coverage rate is considered to have increased. In Meigu County, it is considered that the improvement of rural environment and sanitation (improved as part of the program activities) have decreased the incidence of local infectious diseases. <p>(Comments from the implementing agency)</p>																											

Source: Terminal Evaluation Report; observation upon the site visit in December 2018; questionnaire to Science and Technology and Intellectual Property Bureau of Liangshan Prefecture, Sichuan Province (formerly Science and Technology Bureau of Liangshan Prefecture)

Number of farmer households practicing the pilot activities initiated in this project in the target counties (villages) (excerpts)

	Labao Village, Ningnan County			Luoque village, Meigu County		
	Activities	During project implementation period	2018 (Among 205 households)	Activities	During project implementation period	2018 (Among 246 households)
Agriculture	Introduction of excellent potato varieties	3 households	67 households	Introduction of excellent potato varieties	60 households	92 households
	Vegetable cultivation for sale	5 households	67 households	Development of local corn varieties	17 households	246 households
Livestock	Improvement of barns	19 households	205 households	Introduction of Meigu Goat by revolving scheme	124 households	133 households
	Introduction of swine	40 households	67 households			
Forestry	Construction of	187 households	125 households	Construction of commercial	192 households	192 households

	commercial forests			forests		
				Construction of timber forests	192 households	192 households
Improvement of living	Hygiene education video	48 persons	205 households	Improved cooking stove	103 households	246 households
	Solar water heater	21 households	100 households	Separation of humans and domestic animals	All farmer households	246 households

Source: Terminal Evaluation Report; observation upon the site visit in December 2018; questionnaire to Science and Technology and Intellectual Property Bureau of Liangshan Prefecture, Sichuan Province (formerly Science and Technology Bureau of Liangshan Prefecture)

Note: The number in the column “During the project implementation period” represents the number of participants in the year in which the largest number of participants was recorded for each activity during the project implementation period. The revolving scheme for goat: The female goats are lent to the farmers and, after breeding, the same number of female goats are paid back. As the area that can accommodate the commercial forests and timber forests was limited, the increase in the number of farmers involved in tree planting remained at a constant level.

3 Efficiency

While the project cost slightly exceeded the plan (105% of the plan), the project period was as planned (100% of the plan). Although there was a change of approach for activity, the output of this project was produced as planned. Therefore, the efficiency is fair.

4 Sustainability

<Policy Aspect>

Poverty reduction and the ecological conservation are still important strategies in “The 13th Five-year Plan” (2016-2020). In addition, the central government's “Opinions on Fully Promoting the River Chief System³” (Notice of the General Office of the State Council and the Communist Party of China’s Central Committee in December 2016) and the idea that “Lucid waters and lush mountains are invaluable assets” (raised in 2017), among others, continue to be a policy backup of focusing on environmental protection in the Jinsha River basin.

<Institutional Aspect>

The following implementing agency and related organizations are responsible for training and technological dissemination of the contents including part of the model. Although, as mentioned above, there is no system specifically for dissemination and continuation of the project model, it was confirmed from the implementing agency that sufficient number of personnel (around 600 officials across the prefecture) carry out activities of the poverty reduction program including training for farmers, technical instructions, and awareness raising for the protection of the living environment with instruction given from their superior organizations.

Main organizations related and the number of staff

Liangshan Prefecture			Ningnan County			Meigu County		
Name of organization	No. of positions	No. of staff assigned	Name of organization	No. of positions	No. of staff assigned	Name of organization	No. of positions	No. of staff assigned
Rural Social Development Division, Science and Technology and Intellectual Property Rights Bureau	2	2	Science and Technology Division, Education, Science and Technology Bureau	5	5	Science and Technology Unit, Education, Science and Technology Bureau	3	3 + 2 temporary staff
Industry Division, Agriculture and Animal Husbandry Bureau	-	3	General Station of Technology, Agriculture and Animal Husbandry Bureau	18	18	Science and Technology Education Station, Agriculture and Animal Husbandry Bureau	4	3
Forestry Technology Promotion Station, Forestry Bureau	-	4	Forestry Technology Promotion Station, Forestry Bureau	10	10	Forestry Technology Promotion Station, Forestry Bureau	4	4

Source: Observation upon the site visit in December 2018; questionnaire to Science and Technology and Intellectual Property Bureau of Liangshan Prefecture, Sichuan Province (formerly Science and Technology Bureau of Liangshan Prefecture)

<Technical Aspect>

At the Science and Technology and Intellectual Property Rights Bureau of the prefecture, the personnel who received training under this project continue to work. They commented that their work experience had increased and the capacity had been enhanced under this project, and they were utilizing such assets in projects they were implementing in other counties as their subsequent work. Although there were some personnel changes at the relevant agencies in counties, it was commented that there was no problem with the implementation of the training and the dissemination of the contents including part of the project model. The terminal evaluation of this project had already confirmed that basically, the technologies worked on by this project had been existing technologies in China, and it would be possible for the prefecture and county officials to deal with them.

<Financial Aspect>

Although there is no budgetary framework specifically for the dissemination and continuation of the project model, the budget of the government’s poverty reduction program includes training and technological dissemination of the contents based on the results of this project. The amount expensed is as follows: during the period from 2015 to 2017, 15 million yuan as the annual budget of the Science and Technology and Intellectual Property Rights Bureau of Liangshan Prefecture and 500 thousand yuan and 450 thousand yuan as the science and technology dissemination budget of the governments of Ningnan County and Meigu County, respectively.

<Evaluation Result>

Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

The project mostly achieved its Project Purpose of formulating and introducing a project model of agricultural and rural development in the two target counties. Some contents of the project model have been continuously disseminated and implemented as part of China's anti-poverty measures after project completion. Also, similar activities have been observed in other counties in the Jinsha River Basin in

³ The River Chief System is a system that nominates river management and protection managers from the leadership of local governments.

Liangshan Prefecture. Therefore, it can be said that the Overall Goal of maintaining and improving the ecological environment has been achieved. Regarding the sustainability, while the system and budgetary framework do not exist for continuing and disseminating the project model as it is, there is no problem in the system and budget for the measures to utilize the results of this project (institutional and financial aspects). Also, the policy and the technical aspects are good. As for the efficiency, the project cost slightly exceeded the plan. Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Lessons Learned for JICA:

Activities implemented as the model projects, such as the revolving of goat and vegetable cultivation in vinyl greenhouses, have been continued after this project was completed, and such cases have also been spreading to other farmers. Other farmers were able to see good examples closely, which led them to realize the high effectiveness of the activities. In a model project, making visible efforts could lead to conviction for activities and would be therefore effective in disseminating such activities to other entities.



A farmer household that introduced the revolving scheme of goat (Meigu County)



Commercial crops cultivated in vinyl greenhouses introduced under this project (Meigu County)