

Country Name	Project of Integrated Approach Development in order to Promote Environment Restoration and Rural Development in Morarano Chrome
Republic of Madagascar	

I. Project Outline

Background	About 63% of Madagascar's land area (about 587,000 km ²) was grassland, and the forest area was about 22% of the country's land area, which decreased by 2,850 km ² during the period from 2005 to 2010. Main causes of deforestation and forest degradation were considered to be excessive slash-and-burn cultivation activities by the local residents over the years and forest fires caused by those activities. One of the reasons for the repeated unsustainable land use by the local residents was the lack of land registration in the villages and the fact that many villagers continued to use the land based on customary practices without any guarantee of permanent rights of use.												
Objectives of the Project	<p>Through the promotion of activities for rural development and soil conservation conducted by local population and the registration of land ownership in target communes in Alaotra Mangoro Region, the project aimed at establishing the model to promote integrated rural development and soil conservation in degraded upstream areas, thereby contributing to promotion of rural development and soil conservation.</p> <p>1. Overall Goal: Number of communes which promote rural development and soil conservation in integrated manner increases in degraded upstream areas. 2. Project Purpose: Model to promote integrated rural development and soil conservation in degraded upstream areas is established.</p>												
Activities of the project	<p>1. Project site: Initial target communes: Morarano Chrome, Andrebakely Sud, Ampasikely, and Ambodirano in Alaotra Mangoro Region Extended target communes: Andilanatoby and Ranomainty in Alaotra Mangoro Region and Tsinjoarivo Imanga and Ambatolampy in Bongolava Region.</p> <p>2. Main activities: Baseline survey in the target communes, training for the local residents on specific topics, tree planting in the upland, training of trainers, development of the manual on the model, etc.</p> <p>3. Inputs (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Madagascan Side</td> </tr> <tr> <td>1) Experts from Japan: 8 persons</td> <td>1) Staff allocated: 30 persons</td> </tr> <tr> <td>2) Training in Japan: 9 persons</td> <td>2) Land and facilities: Office space, etc.</td> </tr> <tr> <td>3) Equipment: PC, motorbikes, etc.</td> <td>3) Local cost: expenses for activity operation, etc.</td> </tr> <tr> <td>4) Local cost: hiring local consultants, training expenses, etc.</td> <td></td> </tr> </table>			Japanese Side	Madagascan Side	1) Experts from Japan: 8 persons	1) Staff allocated: 30 persons	2) Training in Japan: 9 persons	2) Land and facilities: Office space, etc.	3) Equipment: PC, motorbikes, etc.	3) Local cost: expenses for activity operation, etc.	4) Local cost: hiring local consultants, training expenses, etc.	
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Project Period	(ex-ante) September 2011 to August 2016 (actual) February 2012 to March 2018 (Extension period: February 2017 to March 2018)	Project Cost	(ex-ante) 494 million yen, (actual) 579 million yen										
Implementing Agency	Ministry of Environment, Ecology and Forests (MEEF) (Restructured to the Ministry of Environment and Sustainable Development (MEDD) in 2019 Ministry to the Presidency in charge of Agriculture and Livestock (MPAE) (Restructured to the Ministry of Agriculture and Livestock (MINAE) in 2021)												
Cooperation Agency in Japan	IC Net., Ltd.												

II. Result of the Evaluation

1 Relevance
<p><Consistency with the Development Policy of Madagascar at the time of Ex-ante Evaluation></p> <p>The “National Policy for Watershed and Irrigated Area (BVPI)” (2006) aimed to enhance rice production by improving irrigation facilities nationwide and promoting sustainable water source recharge functions through vegetation restoration and afforestation in the upstream areas of irrigated areas. Thus, the project was consistent with the development policy of Madagascar at the time of ex-ante evaluation.</p> <p><Consistency with the Development Needs of Madagascar at the time of Ex-ante Evaluation></p> <p>In Madagascar, the grassland and the forest area were decreasing, and the main causes were considered to be excessive slash-and-burn cultivation activities by the local residents over the years and forest fires caused by these activities. Thus, the project was consistent with the development needs of Madagascar at the time of ex-ante evaluation.</p> <p><Consistency with Japan’s ODA Policy at the time of Ex-ante Evaluation></p> <p>During the previous administration, prior to the inauguration of the interim government, one of the priority areas for assistance was set as agricultural, fisheries, and rural development, based on the policy consultation in 2006. The project was adopted before the establishment of the interim government.¹ Thus, the project was consistent with Japan’s ODA policy at the time of ex-ante evaluation.</p> <p><Evaluation Result></p> <p>In light of the above, the relevance of the project is high.</p>
2 Effectiveness/Impact

¹ Ministry of Foreign Affairs ODA Databook (2012).

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

The Project Purpose was achieved by the time of project completion. Upland tree planting was practiced more than planned in most of Fokontany² (Indicator 1), and most of Lavaka³ treated during the training were maintained (Indicator 2). For Lavaka maintenance, the local population conducted regular observation of Lavaka and took measures upon necessity. They also continuously practiced at least one of the new activities for improving living conditions and rural development, such as construction of improved kitchen stoves (*kamado*) and lychee production (Indicator 3). Thus, activities for rural development and soil conservation were implemented and monitored, and the experiences were summarized as the Life Model⁴. The manual for the Model users was developed (Indicator 4), and seven proposals for implementation of the Model were accepted by MEEF and MPAE (Indicator 5).

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

The project effects have partially continued. Although detailed data were not available in the ex-post evaluation, it was confirmed that the local population have continued upland tree planting, Lavaka treatment and activities for improving living conditions and rural development on an individual basis. MINAE and MEDD have collaborated with NGOs including the National Association of Environmental Actions (ANAE) and the Regional Directorate of Environment and Sustainable Development (DREDD) to introduce the Model and its activities in the Bongolava Region. The manual developed by the project has been utilized as reference, as its elements have been referred to in other materials related to the environmental restoration. For example, there have been many other manuals prepared by other development partners and organizations for the environmental conservation and development. Programs for the Model implementation have been implemented.

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

The Overall Goal has been achieved. ANAE and another NGO (Mamafy Soa) have implemented activities based on the Model in 60 new communes. ANAE has trained 551 local trainers. Mamafy Soa has been funded through a consignment agreement under the JICA technical cooperation “Project for Rice Productivity Improvement and Management of Watershed and Irrigation Area” (PAPRIZ Phase 2) (2015-2020) and the JICA technical cooperation “Project for Productivity Improvement and Industrialization of Rice Sector” (PAPRIZ) (2020-2025), and many of its staff had the experience in working in the project. However, it should be pointed out that most of these activities have been implemented in new communes, rather than the project target communes. This is because that, since the time of project completion, follow-up visits have not been conducted by DREDD technicians or local NGO staff, which were dependent on external funds.

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

Several positive impacts have been confirmed. First, gender equity was promoted. According to the information collected in the field survey, women’s participation has been noticeable in various income generating activities, as local trainers directly visited each household and invite women to the activities. Another motivation was that activities such as improved kitchen stoves and compost have attracted women. On the other hand, the following negative impacts were reported in the ex-post evaluation. In the expanded reforested area, local residents have come to carry out activities such as firewood collection but these activities have not been controlled sufficiently, which resulted in the increase in the number of bush fire in Andilanatoby Commune.

<Evaluation Result>

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

Achievement of the Project Purpose and Overall Goal

Aim	Indicators	Results	Source
(Project Purpose) Model to promote integrated rural development and soil conservation in degraded upstream areas is established.	Indicators: 1. Upland tree planting is practiced by 60% of landowner households in upland in at least 75% of fokontany in the Initial Target Communes.	<u>Status of the achievement (Status of the Continuation): Achieved (Continued).</u> (Project Completion) - Upland tree planting was practiced by more than 60% of landowner households in upland in at least 96.7% of Fokontany in the Initial Target Communes. (Ex-post Evaluation) - Upland tree planting has continued in the Initial Target Communes by 92% of the households.	Project Completion Report. DREDD, Regional Directorate of MINAE (DRAE) NGO, beneficiaries.
	2. 75% of Lavaka treated during the training are maintained by the local population in the Initial Target Communes	<u>Status of the achievement (Status of the Continuation): Achieved (Not continued).</u> (Project Completion) - 94.6% of Lavaka treated during the training were maintained by the local population in the Initial Target Communes. (Ex-post Evaluation) - Lavaka treatment has been conducted on an individual basis by people who have Lavaka near their field. The percentage of Lavaka treatment was 36%.	Project Completion Report. DREDD, DRAE NGO, beneficiaries.
	3. 35% of total households continuously practice at least one of the new activities which contribute to improvement of living conditions and rural development in the Initial Target Communes	<u>Status of the achievement (Status of the Continuation): Achieved (Continued).</u> (Project Completion) - 47.7% of the surveyed households continuously practiced at least one of the new activities which contributed to improvement of living conditions and rural development in the Initial Target Communes. (Ex-post Evaluation)	Project Completion Report. DREDD, DRAE

² Fokotany is an administrative unit under a commune in Madagascar.

³ Lavaka is a type of erosional feature usually found on the side of a hill in Madagascar.

⁴ Life Model aimed at promoting rural development and soil conservation at the commune level by providing administrative support for the implementation of community-driven activities based on the needs of the local residents and the ecological functions and human and material resources of the area.

		- 82% of the households have continued activities of income generating, animal vaccination, use of improved stove and reforestation in the Initial Target Communes is 82%	NGO, beneficiaries.
	4. A manual for model user is approved by MEEF and MPAAE	<u>Status of the achievement (Status of the Continuation): Achieved (Partially Continued).</u> (Project Completion) - The manual for the model users was approved by MEEF and MPAAE in January 2017. (Ex-post Evaluation) - The manual for the model users has been used as reference.	Project Completion Report. MEDD, MINAE.
	5. At least one program proposal for implementation of the Model in 31communes in degraded upstream areas is accepted by MEEF and MPAAE for further action.	<u>Status of the achievement (Status of the Continuation): Achieved (Continued).</u> (Project Completion) - Seven program proposals for implementation of the Model in degraded upstream areas were accepted by MEEF and MPAAE, as implemented for further action. 1. Program proposal to use the LIFE model as part of integrated paddy field and sloping land in the valley in collaboration with PAPRIZ2. 2. Program proposal to use the LIFE model as part of conservation of protected areas (completed), in collaboration with the UNDP/GEF Managed Resource Protected Areas (MRPA) Project. 3. Program proposal to use the LIFE model for watershed conservation as a CSR activity of a private company in collaboration with Ambatovy Mining Company (under implementation). 4. Program proposal to transfer know-how on model development to ANAE through the implementation of the GEF/UNEP project “Participatory Sustainable Land Management in the Grassland Plateaus of Western Madagascar” in SLM Bongolava (under implementation). 5. Program proposal to utilize the LIFE model in two target prefectures of the World Bank's PADAP (Project Agriculture Durable par une Approche Paysage) (under preparation for implementation). 6. Program proposal to use the LIFE model in two target prefectures of the African Development Bank (in preparation). 7. Program proposal to use the LIFE model for ESD activities in collaboration with JICA's ESD project (under implementation). (Ex-post Evaluation) - The following proposed programs have been implemented. 1. Program of Sustainable Land Management in Bongolava Region. 2. Sustainable Participatory Land Management Project in the Landscape of the Western Plateau of Madagascar in Bongolava Region. 3. Conservation and Improvement of Ecosystem Services in the Atsinanana Region. 4. Sustainable Agriculture Project using a landscape approach (PADAP) in Sofia Region. 5. PAPRIZ Phase 2 in Amoron'1 Mania Region. 6. Irrigation and Watershed Management Project (BVPI).	Project Completion Report. MEDD, MINAE.
(Overall goal) Number of communes which promote rural development and soil conservation in integrated manner increases in degraded upstream areas.	1. Projects and/or organizations utilizing the Model established by the Project are newly implemented in 31 communes.	<u>Status of the Achievement: Achieved</u> (Ex-post Evaluation) - ANAE has implemented activities based on the Model in 56 Fokontany. Mamafy Soa (NGO) has implemented the Model-based activities in 11 Regions in more than 60 new Communes.	ANAE, Mamafy Soa.

Source: Project Completion Report and information provided by MWE and District Local Governments.

3 Efficiency

Both of the project cost and period exceeded the plan (ratio against the plan: 117% and 123%, respectively). These excesses were for capacity building of ANAE staff for sustaining the Model. Outputs were produced as planned. Therefore, the project efficiency is fair.

4 Sustainability

<Policy Aspect>

Rural development and soil conservation in degraded upstream areas have been supported by the Government of Madagascar which has committed to the environmental restoration, as described in the “National Strategy on Forest Landscape Restoration and Green Infrastructure in Madagascar” (2017-2027). Also, BVPI has been still effective as of the time of the ex-post evaluation.

<Institutional/Organizational Aspect>

As expected by the time of project completion, ANAE has taken over to promote the Model and has worked closely with DRAE. DRAE has given training sessions for supporting the farmer’s extension on agricultural aspects. According to all the interviewees, the number of personnel of ANAE has been sufficient, as ANAE has not needed a large staff as its duties have been mainly supervision of the beneficiaries. ANAE has conducted monitoring of activities, being reported from the local trainers who have got information from the

Sustainable Land Management Committees at the Fokontany level. On the other hand, there has been a personnel shortage at MEDD, which has been responsible for the environmental aspect. MEDD has carried out periodic assessments of the activities with the help of the commune environmental committee and the Advisor for Rural Development for the Fokontany.

<Technical Aspect>

ANAE had conducted the activities based on the similar model even before the project, and by doing its personnel has sustained the necessary skills and knowledge to promote the model, according to the Technical Director of ANAE. On the other hand, the General Manager of Environmental Governance answered that MEDD has needed more capacity building for promoting the model. For NGOs who have promoted the Model, various training has been provided by MINAE and MEDD.

<Financial Aspect>

Financial data could not be available from ANAE and MEDD at the ex-post evaluation survey. ANAE answered that there has not yet been a problem of financing for reforestation and training activities in Bongolava Region because of projects with external funds such as JICA, the World Bank and other international partners. On the other hand, MEDD answered that the budget has not been guaranteed for promoting the model but has got financial contributions from private companies as their social corporate responsibility.

<Evaluation Result>

In the light above, there have been some issues in the institutional, technical and financial aspects. Therefore, the sustainability of the effects is fair.

5 Summary of the Evaluation

The Project Purpose was achieved, in other words, the Life Model for the integrated rural development and soil conservation in degraded upstream areas was established, and elements of the Model have been referred to in other development projects. Activities based on the Model have implemented in new communes through JICA's succeeding project and other projects. Regarding sustainability, although MEDD has faced a personnel shortage and needed more capacity building, ANAE has sustained the necessary skills for promoting the Model. Activity monitoring has been sustained. As for efficiency, both the project period and cost exceeded the plan.

Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

- In order to MEDD to assign more personnel to continue follow-up of Lavaka treatment of the local population, which is indispensable to protect the downstream from erosion especially where they have their own rice field.
- It is recommended to MEDD to further promote the financial contribution from the private companies, by reporting to them how their support has been utilized and what results have been brought (reforestation, soil conservation, livelihood improvement, etc.) and also by diffusing the information through its Facebook.
- To implement BVPI which was developed by MINAE successfully, further active participation of MEDD and the two ministries' collaboration is necessary. It is recommended to the two ministries to have discussion and agreement regarding their specific roles such as erosion control in the downstream area and reforestation in the upstream area. Since the LIFE Model is based on BVPI, their strengthened collaboration would further promote the model diffusion.

Lessons Learned for JICA:

- The LIFE Model was successfully implemented in the project. However, the local population's activities, especially Lavaka treatment, has been limitedly carried out without the local trainer's monitoring. Before the project is concluded, an official document should be exchanged with the implementing agency JICA Technical Cooperation, which says that the responsible ministry should continue monitoring and follow-up in the intervened target sites for one or two years, not only diffuse the project experience in new sites.
- In some area, the project has expanded the reforested area as its effect, but at the same time, a negative impact, bush fire, has been caused because firewood collection has not been sufficiently controlled. In the project planning or implementation stage, it is important to make sure that an intended positive project effect would cause any negative impact. If any negative impact may be possible, it is necessary to include activities for mitigating it in the project.



Improved kitchen stove made with recycled materials.



Rice field in the downstream area.