

終了時評価調査結果要約表（英文）

I. Outline of the Project	
Country : The Republic of Senegal	Project title : The Integrated Community Forestry Development Project Extension Phase
Issue/Sector : Sustainable Use of Natural Resources	Cooperation scheme : Technological Cooperation Project
Division in charge : Global Environment Dept. Forest and Environment Conservation Division II	Total cost : (Extension) 341,699,000 yen
Period of Cooperation	(Extension) 15/Jan/2005 -31/Mar/2008 (R/D) 22/Dec/2004
	Partner Country's Implementing Organization : Department of Water, Forests, Hunting, Soil Conservation Supporting Organization in Japan : Ministry of Agriculture, Forestry and Fisheries
1 Background of the Project	
<p>The Republic of Senegal is facing environmental crisis of desertification and deforestation. Conservation of forests is one of the most important issues of the country. The Senegalese Government formulated the National Forest Action Plan in 1993, and enacted the Decentralization Laws in 1997, New Forestry Law in 1998, and then the promotion of tree planting activities in rural areas by local people has been emphasized as government policy.</p> <p>In consonance with this, the Japanese Government has been supporting the activities mentioned above mainly through the two major projects; Tree Seedling Nursery Rehabilitation Project and Planting Promotion Cooperation Program through its bilateral channel. In this context, the Senegalese Government has requested to the Japanese Government another cooperation program under the scheme of project-type technical cooperation to promote community forestry integrated in a rural production system.</p> <p>Then, the integrated Community Forestry Development Project has been implemented since 15th of January 2000, based upon the Record of Discussions signed on 26th of August 1999, between the Government of Japan and the Government of the Republic of Senegal.</p> <p>According to the R/D, the Project Purpose is that the development model for community forestry and community development, of which community resources are managed and utilized through the initiative by local people, is established. Furthermore, the Overall Goal of the Project is that the development model for community forestry and community development, which has been proven effective through the project, is extended.</p>	
2 Project Overview	
(1) Overall Goal	
Activities of the sustainable natural resource management are initiated and practiced by local people.	
(2) Project Purpose	
An extension model of the sustainable natural resource management is elaborated and disseminated by PRODEFI in the target areas.	
(3) Outputs	
<ol style="list-style-type: none"> 1. Biophysical and socioeconomic baseline data of each target village is collected. 2. Training programs are established in collaboration with villagers of the target villages. 3. Villagers are trained in the target villages according to the training programs established. 4. An extension system for the sustainable natural resource management is practiced through dissemination networks of training participants. 5. Local resources are mobilized by the villagers to continue the activities of sustainable natural resource management after the training. 6. Results of PRODEFI are accessible to the public. 7. The management, coordination, and collaboration capacity of PRODEFI is reinforced. 	

(4) Inputs

[Japanese Side]	[Senegalese Side]
(1) Experts 8 experts (2) Counterparts training 5 persons had been trained in Japan (3) Provision of equipment In addition to the machinery in previous phase, the Project procured 1 4WD, 6 off-road bikes, 1 generator, and 1 stabilizer. (4) Budget 341,699,000yen, corresponding about 1,386,078,075 FCFA	(1) Counterparts 6 C/Ps have been assigned in total. (2) Provision of land, building and facilities Land is prepared for the Project by Senegalese side and the office is constructed by Japanese side in previous phase. (3) The Budget 33,455,190 FCFA, corresponding about 8,363,797 yen.

II. Evaluation Team

Members of Evaluation Team	(1) Mr. Eizen IREI /Leader	Resident Representative, JICA Senegal Office
	(2) Mr. Kenichi TAKANO /Evaluation Management	Executive Technical Adviser to the Director General, Global Environmental Dept, JICA
	(3) Mr. Ippei MATSUHISA / Evaluation Planning	Program officer, Forestry and Nature Conservation Team II, Global Environmental Dept, JICA
	(4) Ms. Satomi TANAKA / Evaluation Analyses	Consultant, CDC International
	(5) Mr. Koichi KATO /Mission Management	Assistant Resident Representative, JICA Senegal Office
	(6) Mr. Ibrahima NDIAYE / Evaluation Analyses	Deputy Chief, Division of follow-up and Evaluation, direction of Water, Forest, Hunting and Soil Conservation, Ministry of Environment, Protection of Nature, Reservoirs and Artificial lakes.
Period of Evaluation	3/Dec/2007~14/Dec/2007	Type of Evaluation : Terminal

III. Results of Evaluation**1. Achievement of the Overall Goal**

Overall Goal	Indicators
Activities of the sustainable natural resource management are initiated and practiced by local people.	1. Number of donor agencies and NGOs adopting the PRODEFI extension model of sustainable natural resource management. 2. Number of People who practice the knowledge and skills acquired from the PRODEFI extension model.

It is difficult to forecast the achievement of the Overall Goal within three to five years. But some positive features are observed as shown below.

- The Forestry Department of Dakar has elaborated and submitted the proposal of the project applying the PRODEFI Model to JSDF, Japan Social Development Fund, though it was not

- approved.
- Draft Users Manual has made and widely distributed to various stakeholders, as described above “Achievement of the Project Purpose”.
 - The Project has collaborated with three relevant projects, as described above “Achievement of Output 7”.
 - PROGERT, which is collaborating project of PRODEFI, has chosen its project sites which cover PRODEFI’s Target Villages.

2. Achievement of the Project Purpose

Project Purpose	Indicators
An extension model of the sustainable natural resource management is elaborated and disseminated by PRODEFI in the target areas.	<ol style="list-style-type: none"> 1. <An extension model for the sustainable natural resource management based on dissemination networks of training participants> (English and French version) is available. 2. Number of the extension model of sustainable natural resource management manuals distributed. 3. Comments of relevant organizations on PRODEFI model.

Project Purpose is expected to be achieved at the end of the Project.

Draft Users Manual of the PRODEFI Model is elaborated and scheduled to be finalized at the end of the Project.

40 pieces of Draft Users Manual are distributed to the Forestry Department, 50 are to the administrative authorities concerned, NGOs and other donors of Kaolack Region, and 2 are to other possible users of other Regions.

According to the interview with the participants of the seminar held in Nioro at December 11th, 2007, the PRODEFI Model is evaluated as an appropriate approach for sustainable natural resource management by the local villagers.

3. Achievement of the Outputs

Output 1	Indicators
Biophysical and socioeconomic baseline data of each target village is collected.	<ol style="list-style-type: none"> 1-1 At least one study to be done in each village 1-2 Frequency of referring to the study reports (for training programs design, etc.)

Output 1 is highly achieved. Two studies were conducted in all the villages during the Project term and they were elaborated as the Baseline Study Report and the Local Resources Study Report. According to the interview with the Experts, the Project Team has frequently referred to these reports to plan the trainings.

Output 2	Indicators
Training programs are established in collaboration with villagers of the target villages.	<ol style="list-style-type: none"> 2-1 Number of the training modules prepared for each target village: 9 modules for a village selected in the current phase, and 4 modules for a village selected in the previous phase 2-2 Number of the training sessions (225 sessions)

Output 2 is almost completely achieved. In 20 of 21 newly selected Target Villages of the current phase, more than nine modules (theme of the training) of the training are conducted and eight training modules were conducted in the other newly selected Target Villages. In five of nine continuously selected Target Villages from the previous phase, more than four training modules are conducted and three are in the other four continuously selected Target Villages. In average, 10.1 training modules

are conducted in newly selected Target Villages and 3.7 training modules are in Target Villages selected in the previous phase.

Throughout the Project, 246 sessions (times) of the training are conducted in the Target Villages, and 13 sessions of the training are conducted in the project villages of POGV2 (four villages) and PROGERT (one village) projects.

Output 3	Indicator
Villagers are trained in the target villages according to the training programs established.	3-1 Total number of training participants classified by social groups (1823 male and 4860 female participants)

Output 3 has been achieved, exceeding its Indicator. 5,002 men and 10,822 women have been trained in the trainings, such as planting, seedling nursery, vegetable cultivation and processing, charcoal making, erosion control, improved stoves.

Output 4	Indicators
An extension system for the sustainable natural resource management is practiced through dissemination networks of training participants.	4-1 More than 10% of training participants use the knowledge and skills acquired through the training (to be evaluated at the end of project) 4-2 Sixty seven (67) villagers copy the practices of the training participants 4-3 Changes of villagers' behavior (to be evaluated at the end of the project)

Output 4 has been achieved.

According to the study by the Project, in average, 59.2% of the training participants have practiced the knowledge and skills acquired through the training. The percentage of the practice after the training differs from the modules of trainings, but in most of the cases, more than 10% of training participants practice the skills acquired from the trainings.

According to the survey by the Project, 50 villagers who have not participated in the training have copied the practices of the training participants. The Indicator 4-2 has not yet achieved, since the data is not new enough taken from the survey in January 2007 and the number of the samples is only 1,169 villagers who have not participated in the training. So the Indicator 4-2 will be achieved soon. According to the questionnaire survey to the animators, it is observed the initiative and ownership of villagers has been raised high enough to solve the problems such as construction of small scale erosion control dam by themselves.

Output 5	Indicators
Local resources are mobilized by the villagers to continue the activities of sustainable natural resource management after the training.	5-1 Number of the participants for each activity of sustainable natural resource management 5-2 Villagers' contributions in cash and in kind for each activity of sustainable natural resource management after the training

Concrete figure is not fixed in the Indicator 5-1, but according to the corresponding data and the Indicator 5-2, Output 5 is considered to be achieved well.

The number of the participants for seedling production activity was 200 individuals and 29 groups in the year 2006, and 302 individuals and 26 groups in 2007. The number of the participants of reforestation activity was 1,919 individuals and 194 groups in total man-days during the project term. To practice the plantation activity, villagers take the seedlings from the Nioro Forest Service to the plantation area by using their horses and carts, or expensing the fuel fee. Villagers also expense the

fuel fee to carry the stones and other materials to construct the small scale erosion control dam. The Project has just assisted the activities by renting the car with the driver.

Output 6	Indicators
Results of PRODEFI are accessible to the public.	<p>6-1. At least 5 publications in English and French (one final report in English and French, three survey reports on target area in French, one manual on the extension model of the sustainable natural resource management; to be evaluated at the end of the project)</p> <p>6-2 Number of seminars for the presentation of results organized by the Project</p> <p>6-3 Level of PRODEFI's popularity among the villagers and other donors.</p>

Output 6 will be highly achieved if some reports such as Final Report of the Project will be finalized and approved at the end of the Project.

Final Report of the Project is drafted and the Project has elaborated the survey reports about their corresponding Target Villages. Manual of the extension model of the sustainable resource management is drafted and expected to be finalized until the end of the Project.

The Project has held 10 seminars for the presentation of the plan, implementation, or results of the Project, and four seminars are scheduled to be held until the end of the Project.

According to the survey by the Project, 96% of the sampled villagers know the presence of the Project, and 84% of them can correctly answer the major contents of the activities of the Project. Although the Objectively Verified Indicator is not found, but among the local staffs of the other major donors, such as UNDP, GEF, World Bank, IFAD, WADB, GTZ and USAID, the Project seems to be recognized through the exchanges of information and inter-visits.

Output 7	Indicators
The management, coordination, and collaboration capacity of PRODEFI is reinforced.	<p>7-1 Percentage of the villagers satisfied with the partnership with PRODEFI (more than 50%)</p> <p>7-2 Number of memorandums of understandings signed (to be evaluated at the end of the project)</p>

Output 7 is achieved enough, considering the high rate of satisfaction by the villagers about the Project.

According to the survey by the Project, 93.5% of the 294 sampled villagers answered that they are satisfied with the activities of the Project, especially in terms of income generation and capacity development of themselves. In addition, that was also noticed by the Team during the village meetings.

The Project signed the minutes of understandings to collaborate with the projects such as PROGERT and POGV2, and the one with PROMER is now under discussion.

1 . Summary of Evaluation Results

1-1 Relevance

The Project is highly relevant as follows:

The Overall Goal and Project Purpose of the Project are still matching with the relevant Senegalese national policies, such as Second version of the Poverty Reduction Strategy Paper, (PRSP II 2006-2010, 2006), Policy Paper of Environmental Sector (LPSE), and Forest Policy of Senegal (FPS, 2005-2025).

The forest resources of Senegal have been decreased because of disorderly cutting, development of farmland, overgrazing, and so on. At the same time, the soil erosion and deterioration of the natural

environment have seriously influenced the agricultural production of the local villagers year by year. So the Sustainable control and utilization of natural resources are important requirements for sustainable development of the social economy in Senegal, where the productivity per unit of land is low and the land is semi-arid land with fragile soil. Therefore, the Project, which facilitates the reforestation through the integration and improvement of the villagers' production activity of agriculture, forestry and others, is matching with the needs of the Target Villages.

According to the latest "JICA Country Programme of Senegal" (2006), environment conservation, including the prevention of desertification, is identified as one of the important development issues. Especially, participatory and sustainable management of natural resources and environment is regarded as important approach.

1-2 Effectiveness

The Effectiveness of the Project is generally high as shown below in detail:

(1) Degree of achievement of the Project Purpose

Project Purpose is expected to be achieved at the end of the Project. Draft Users Manual of the PRODEFI Model is elaborated and scheduled to be finalized at the end of the Project.

40 pieces of Draft Users Manual are distributed to the Forestry Department, 50 are to the administrative authorities concerned, NGOs and other donors of Kaolack Region, and 2 are to other possible users of other Regions.

(2) Contribution of Outputs to the achievement of the Project Purpose

Every Output has related each other and contributed to the achievement of the Project Purpose. Below is a brief description of the order from Output 1 to Output 7 to reach the Project Purpose.

- In Output 1, the Project surveyed the Project Site and selected the Target Villages and the baseline established.
- In Output 2 and 3, the Project conducted the training in the Target Villages.
- In Output 4 and 5, the Project followed the villagers' activity based on the training.
- In Output 6 and 7, the Project established the reports and manual to disseminate the PRODEFI Model.

(3) Promoting / preventing factors

- The Project does not select the participants for the training. This non-selective method has brought out all the villagers' motivation including the ones who had not a lot of opportunities to receive "selective" trainings.
- The Project utilizes the local resources in training. It has made the villagers easy to practice the activity and refer to the local instructors, if the needs arise.
- The performance of animators has contributed to the follow-up, monitoring, and elaboration of extension model of the Project.

1-3 Efficiency

The efficiency of the Project is high. Detailed assessment of efficiency is as follows:

(1) Adequacy of Inputs

Japanese side

As for the dispatch of Experts, its timing, duration, number, quality, and specialty are appropriate. Judging from the achievement of the Project, experts have contributed to the achievement of the Outputs. Counterpart trainings in Japan are conducted appropriately in timing, duration, number, quality, contents and utilization of the acquired techniques/knowledge in the Project. Provisions of the equipment and materials are appropriate in terms of quality, timing, quantity and utilization and the degree of their contribution to the achievement of Outputs is high.

Senegalese Side

As for the assignment of counterpart personnel, its timing and technical level are appropriate and the degree of the contribution to the achievement of Outputs is high, especially the contribution of the Project Manager, who worked as long as eight years for the Project, is very high. In addition, the

number of counterparts (which is two) in the Forestry Department in Nioro is not sufficient to cover all the activities conducting in the Project sites, with their high level of commitment, the Team evaluates that they contribute to the Project. As for the assignment of administration staffs, its timing is appropriate, technical level and specialty are mostly appropriate. The degree of the contribution to the achievement of Outputs is high. As for the land is allocated for the Project, and the office was constructed in previous phase. As for the expenditure of Senegalese local cost, it was not adequately allocated for the last year because of the delay in execution.

(2) Promoting / preventing factors for the Efficiency

Energetic work of highly committed animators, utilization of local resources such as local instructors of trainings, non-selective and mass trainings to villagers, and high motivation and initiative of the villagers promoted the achievement of Outputs.

The Project also appropriately selected the Target Villages where wills of villagers exist and the land usable for the plantation is available. In addition, villagers have created microfinance system and the Team found it very functional. The access to the traditional finance system such as CMS has facilitated the achievement of Outputs.

1-4 Impact

Some positive Impacts are observed.

(1) Expectation to the achievement of the Overall Goal

Although it is difficult to forecast the achievement of the Overall Goal within three to five years, some unintended positive Impacts are observed as shown below.

- Throughout the project activity, communication and collaboration among the villagers have been reinforced and they have come to act in groups.
- By utilizing the part of revenue from income generating activities introduced by the Project, important infrastructures for the villagers such as wells are constructed and maintained properly.
- The counterpart staffs of the Forestry Department in Nioro have become conscious and practiced that they should collaborate with relevant authorities to improve the livelihood of the villagers for sustainable natural resource management as their own mandate.

(2) Unintended negative Impacts

- In one Target Village, as the revenue has grown with the income generated by the project activities, it is observed that the relationship between men and women, which had been good one, has worsened due to the disagreement as to the division of the revenue.

1-5 Sustainability

Sustainability of the natural resource management by the villagers is high under the proper support by the Forestry Department. Dissemination of the extension model which is elaborated by the Project is not clearly judged. Detailed assessment of sustainability is as follows:

(1) Sustainability of natural resource management by villagers

The sustainability of villagers' activities is high.

- Villagers in the Target Village have acquired various techniques and knowledge through the implementation of the Project for practicing activities such as Eucalyptus plantation, nursery, and charcoal production.
- They have the fund for activities through the utilization of microfinance system such as CMS and group funds within the villages.
- Villagers are able to receive technical supports from forestry officers and local instructors of trainings to the activities in their villages.

(2) Continuing supports by Forestry Department

The continuity of supports by Forestry Department is relatively high.

- Assignment of key person of the Project such as the Project Coordinator will complete by the termination of the Project.
- The number of forestry officers in Nioro Forestry Office is not enough to cover the Target Villages and the office does not have sufficient financial means to fully carry out their activities.
- All the animators who have remarkably contributed to the success of the Project will finish their contracts at the end of the Project.
- PROGERT, which is collaborating project of PRODEFI, has chosen its project sites which cover PRODEFI's Target Villages so that the supports of the Nioro Forestry Service can be strengthened.

(3) Dissemination of the PRODEFI Model to other areas

Possibility of dissemination of the extension model which is elaborated by the Project is not clearly judged.

- The PRODEFI Model was elaborated as extension model and the Draft Users Manual is distributed.
- Forestry Department has made the proposal for applying the PRODEFI Model to JSDF, but it is not approved due to the criteria set by the fund.
- Since each project has its own approach for its execution, the existing projects have not so far come to adopt the PRODEFI Model giving up their own methods, though the PRODEFI Model is highly acknowledged and evaluated as an appropriate approach for sustainable natural resource management by other projects.
- Techniques developed by the Project such as small scale erosion control dam might be utilized by donor agencies such as PROGERT.

The efficiency of the Project is high. Detailed assessment of efficiency is as follows:

(1) Adequacy of Inputs

Japanese side

As for the dispatch of Experts, its timing, duration, number, quality, and specialty are appropriate. Judging from the achievement of the Project, experts have contributed to the achievement of the Outputs. Counterpart trainings in Japan are conducted appropriately in timing, duration, number, quality, contents and utilization of the acquired techniques/knowledge in the Project. Provisions of the equipment and materials are appropriate in terms of quality, timing, quantity and utilization and the degree of their contribution to the achievement of Outputs is high.

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The Project also appropriately selected the Target Villages where wills of villagers exist and the land usable for the plantation is available. In addition, villagers have created microfinance system and

the Team found it very functional. The access to the traditional finance system such as CMS has facilitated the achievement of Outputs.

2. Conclusion

The Team concludes that the Project Purpose was accomplished and most of the five criteria of evaluations are also met except that certain efforts are needed to be done to fully secure the sustainability.

3. Recommendations

The Project finds that the villagers have good potential to continue the management of natural resources and that there are wills of the Forestry Department to apply the PRODEFI Model. Nevertheless, the Team recommends the Forestry Department to better assure the continuity of the Project as follows;

(1) Assurance of assistance, materials and the budget necessary for the continuity

- 1) To assure the good continuity of the Project Outputs, the assistance to the villagers has to be assured. To that end, the Forestry Department needs to discuss the possible measures such as the assignment of the Project Coordinator to a post which enables him to continue in any way the support to the Project Area, and the mobilization of the officers in the Niore Forest Service.
- 2) Some of the material such as the vehicles and motorcycles that are presently used by the Project can be handed over to the Niore Forest Service to assure the continuity of the activities of its officers.
- 3) The budget which permits the monitoring of the villagers' activities by the officers of Niore sector is also essential. The budget should assure such cost as gasoline for monitoring and as maintenance for these materials.

(2) The dissemination and the application of the PRODEFI Model

The diffusion of the PRODEFI Model has been actively carried out by the project, but it has not yet spread enough for other partners to apply the Model to their projects or programs. Based on the result of the interview with a partner project of PRODEFI, the Team learned that a project has normally its own approach well fixed enough to apply an external model such as the PRODEFI Model, though the partners are willing to collaborate with the Project to benefit from the activities that the Project has introduced. From this point of view, The Forestry Department needs to take the initiative to do the further efforts for the application of the Model to show the effectiveness of it, promoting the application by the other institutions concerned for the benefit of the population of Senegal in a wider scale.

(3) The exchanges of the know-how acquired among the villagers of the similar projects.

Exchange of the information among the villagers of the similar projects would improve the quality of the outputs of the Project, since it is the techniques and know-how at the local level that can take root smoothly, therefore assure the development of villages in a concrete way. The similar project such as PAGEMAS and PROGERT can be a good partner to carry out the exchanges of know-how for the benefits of the villagers in the Project Area.

(4) Study on the market of Eucalyptus and the appropriate application of the administrative procedures regarding the permissions of the production and sales of the charcoal.

- 1) Because of the great demand for Eucalyptus products due to the current trend of the construction in big cities in Senegal, the price of the products has been increasing. It would be careful however if the study on the market of the products especially on the future trend of the price is carried out in order to better direct the villagers to the success on the sustainable management of natural resources over a longer span.
- 2) The charcoal production out of Eucalyptus has started to generate the profits. Taking into consideration the possibilities that the production of the charcoal grows in a larger scale, the administrative procedures regarding the permission on the production and the transportations has to be practical for the sustainable management of natural resources.

4. Lessons Learned

- (1) The Team has noticed the strong implication of the animators and the forestry officers in the Project activities. The villagers' confidence especially in the animators facilitated enormously the implementation of the project. The importance of the role of facilitators played by the animators should be noted to implement projects, which aims strong involvement of villagers.
- (2) The choice of the Project Area was pertinent for the Project. These are the villages where the factors important for the Project implementation such as functional organizations, accesses to finance and certain competent instructors already exist. This existence of these basics for development is indispensable to reach the level of success achieved by the Project.
- (3) The minimization of the inputs of the Project is also one of the important lessons that the Team can extract to assure better the continuity of the project. The preference such as on the local instructors for its trainings is one of the examples of the minimization of the Project costs and also of the sustainability of the Project compared to the case using the one from other areas. The Team also finds that the confidence in the Project by the villagers enables the minimization of the Project cost such as the fact that the Project, carrying out the various kinds of the trainings to the villagers, has not paid the allowances nor offered lunches to the participants, which shows once again the importance of good communication with the villagers.