

## **Rural Development Project Integrated with Forestry in the Semi-arid Area of Senegal**

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### **Rural development in semi-arid areas**

Mr. Nishimaki presented one of JICA's development studies on the integrated rural development project in Baringo, Kenya. This study was conducted to draft a master plan for rural development in the semi-arid area of Kenya taking into account water management and crop production. Through this study, several verification trials were conducted to design an improved oven, to rehabilitate small farm ponds and to promote small-scale industries. The effectiveness and applicability of these trials were evaluated.

However, the same approach does not necessarily result in the same outcome in various areas. Since human resources such as capability of local people and technicians and management ability of officials (extension officers, welfare officers, village officers, administrative officers) are various and they are the key factors to determine the effective implementation of the trials, thus the outcome results in variously. Social resources also play a vital role in determining the outcome of verification trials since all the trials are conducted in close collaboration with the community. The way of cooperation, the sense of belongings and relationship of mutual trust within the community are considerably related to the outcome.

In order to make full vitalization of the human and social resources, it is essential that all the beneficiaries have to participate through the whole process of the project from the planning stage to the implementation stage (participatory approach). The beneficiaries of the Kenya project earned their livelihood mostly by grazing of cattle and goats, maize cultivation and small-scale industries such as bee-keeping for honey, fisheries and handicrafts. Therefore, the rural development project is needed to be implemented with integrated components and participatory approach.

In other areas, a forestry component is considered to be indispensable for rural development. In this report, rural development closely associated with a forestry component implemented by JICA in Senegal is presented.

### **Integrated Community Forestry Development Project in Senegal**

The project area is a semi-arid area with a precipitation of 600-800 mm. The people are mostly engaged in agriculture such as the cultivation of groundnuts, maize, millet, sorghum and timber harvesting. Prior to the project, the needs of the people were surveyed by interviews and workshops and the result is indicated in Table 1.

**Table 1 Needs of the people in the project area**

People wish to obtain	People wish to become engaged in the following activities
<ul style="list-style-type: none"> <li>• Fund for small-scale business</li> <li>• Millet mill</li> <li>• Mango trees for sale</li> <li>• Toilet</li> <li>• Improved stove</li> <li>• Primary school</li> <li>• Clinic</li> <li>• Women's center</li> </ul>	<ul style="list-style-type: none"> <li>• Vegetable production</li> <li>• Textile dyeing</li> <li>• Knitting</li> <li>• Hairdressing</li> <li>• Acquisition of literary</li> <li>• Grafting techniques</li> </ul>

The people wanted to obtain, various items and most of the requests were related to the domestic issues. Since soil erosion is becoming serious in the project area due to deforestation for fuel, the people have been recognizing the importance of reforestation to secure their livelihood. The improvement of domestic issues and reforestation were simultaneously discussed and eventually reached the understanding that the project should be implemented with the integration of domestic issues and community forestry to upgrade their standard of living. Table 2 shows the Project Design Matrix of the Integrated Community Development Project in Senegal.

Through the discussions, women and youth groups found that they were very keen to participate in the reforestation activities after being introduced to environmental education. Thus, it was recognized that the gender issue should be strengthened and incorporated into the project.

It was also understood that the number of activities within the project should be limited in accordance with local people's capability.

Since the integrated activities with participatory approach require a long process from the beginning to the visible outcome, it is hoped that this project will contribute to the formulation of a model for sustainable farming in the semi-arid region of Senegal in the near future.

The project has been implemented since January 2000 and it is expected to achieve the project goal.

**Table 2 Project Design Matrix (PDM) of Integrated Community Forestry Development Project**

Target Areas : 4 regions (Firgui, Mamby, Fimela, CR de Yenne) Partners : CERP, Rural Council, local administrations, local people

Duration : January 15, 2000 ~ January 14, 2005

Executing agencies : DEFCCS, JICA Beneficiaries : Local people

SUMMARY	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Main GOAL</b></p> <p>To contribute to the improvement of the living standard through better management of natural resources</p> <p><b>OVERALL GOAL</b></p> <p>To extend the model for community forestry and community development which was designed during the project period to other target areas</p> <p><b>PROJECT PURPOSE</b></p> <p>To promote a model for community forestry and community development led by local people within the target areas for the regeneration of soils and availability of water</p> <p><b>OUTPUTS</b></p> <p>1 Capability of local people and technical staff will be strengthened in terms of management of natural resources and communication.</p> <p>2 Project management capability of DEFCCS and CERP will be enhanced</p> <p>3 Technical and management manuals will be produced</p> <p>4 Appropriate farming techniques will be implemented</p> <p>5 Land management will be improved</p> <p>6 Prevention measures against soil erosion by rain and wind will be undertaken</p> <p>7 Practical activities aiming at the regeneration of vegetation will be carried out</p> <p>8 Salt advance will be reduced, and some salty lands will be rehabilitated.</p> <p>9 Access to water will be improved</p>	<p>Field visits, reports and impact surveys</p> <p>Final report</p> <p>Field visits and reports</p> <p>Final evaluation (interviews and questionnaires)</p> <p>Records, field visits and reports</p> <p>Project achievement chart</p> <p>Manuals</p> <p>Tech. monitoring sheets, field visits &amp; report</p> <p>Land use maps and PAGT</p> <p>Land use maps, field visits and reports</p> <p>Field visits and reports</p> <p>Field visits and reports and land use maps</p> <p>Field visits and reports</p> <p>Survey, field visits and reports</p>	<p>C/P remain in their positions</p>

ACTIVITIES	INPUTS	IMPORTANT ASSUMPTIONS
<b>Output 1 :</b> The capability of the local people and technical staff will be strengthened in terms of management of natural resources and communication techniques		No drastic decline of rainfall
<b>Output 2 :</b> Project management capability of DEFCCS and CERP will be enhanced	<b>SENEGAL SIDE</b>	No drastic devaluation of currency
<b>Output 3 :</b> Technical and management manuals will be produced	* C/P (Project Director, Project Manager, Community Forestry, Community Development, Gender and Equity) and other necessary supporting staff and administrative personnel * Project office * Operation costs * Land for activities * Regional nurseries	Other infrastructures are maintained
<b>Output 4 :</b> Appropriate farming techniques will be implemented		No obvious conflicts among beneficiaries
<b>Output 5 :</b> Land management will be improved		
<b>Output 6 :</b> Prevention measures against soil erosion by rain and wind will be undertaken		
<b>Output 7 :</b> Concrete measures aiming at the regeneration of vegetation will be undertaken	<b>JAPAN SIDE</b>	
<b>Output 8 :</b> Salt advance will be reduced, and some salty lands will be rehabilitated	* 3 long-term experts (Chief Advisor, Coordinator, Community Forestry, Community Development and Gender and Equity) and short-term experts (approximately 2 experts per year) * Necessary equipment and materials * Vehicles * Local cost support * C/P training	
<b>Output 9 :</b> Access to water will be improved		<b>PRECONDITIONS</b>
		Political stability