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FINAL EVALUATION

OF THE

COMMUNITY FORESTRY ACCELERATED

IMPACT PROJECT # 698-0410.35

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PROJECT EVALUATION SUMMARY

13. SUMMARY

The project has encountered a largely unforseen technical problem of finding suitable tree species having the desired characteristics of rapid growth, soil improvement, forage production etc. and which are adapted to the extremely acid, difficult soil conditions which prevail on available planting sites in the Fouta Djalon. Gmelina arborea, the main species planted, has performed poorly with very slow growth. A variety of species trials were begun in the third year; some species show promise but it is too early to judge their suitability at this early stage of the dry season. It is believed that suitable species can be identified and that the use of locally available soil amendments (animal manure, ashes, compost, soil from termite mounds) added to the planting holes can greatly improve planting success.

Other elements of the project have surpassed targeted objectives. Three projects nurseries have been established and are providing seedlings for plantings in all the villages of three sous-prefectures. The project has expanded activities from simple woodlots on communal lands to include plantings for forage production and windbreaks on both communal and private lands. Six privately owned tree nurseries have been established with project assistance.

The basic self-help philosophy and approach of the project enjoy excellent support from the GOG. Local participation has been very good. The return of the Peace Corps to Guinea presents interesting opportunities for improving and diversifying project activities. It would be unfortunate to abandon this promising effort upon the termination of this project at the end of December 1985.

14. Evaluation Methodology

The purpose of this final evaluation of the Community Forestry Project is to analyze its successes and failures so that:

- 1) AID can better judge whether there should be a follow-on project as planned in the original PP, and so that
- 2) if there is a follow-on, its design can benefit from this evaluation.

The evaluation was conducted between Nov. 15 and Dec. 5, 1985. In performing the evaluation, the author benefitted from discussions with the following people:

Tim Resch, USDA/FS., Forestry Support Program;

Mark Wentling and Bob Hellyer, AAO/Conakry;

Khalidou Diallo, Secretary General, Waters and Forest Service;

Mr. Keita, Directeur Prefectoral Eaux et Forets, Pita.

Project personnel:

Sangure, Directeur du Projet, Ingenieur des Eaux et Forets; David Laframboise, American forester; Mr. Balde, Lamine Camara, Moctar Sylla, Saidou Barry and Bobo Sow, GOG agents assigned to the project;

FAO Watershed Management Project, Pita;

Oury Bah, Director;

Jan Cerny, Hydrologist;

Jean Isbecque, Soils Scientist;

Ramanahadray, Nursery Manager;

Philip Combte and Don Osborne, PCV's recently assigned to the project.

Three full days were spent in the field visiting project work sites.

15. External Factors

Certain external factors have significantly affected the development of this project. All plantations realized during the first growing season (1983) were organized through the Parti Democratique de Guinee (PDG) political party. This structure was strongly autocratic and characterized by top-down decision making. All plantations were on communal village lands.

Following Sekou Toure's death in March 1984, and the coup which followed just after, the PDG was dissolved, creating an organizational vacuum at the village level. As a result, only 2,500 trees were planted in 1984 compared with 40,000 in 1983.

The new Government has encouraged private entreprise and personal initiatives. Villagers have become very outspoken and critical, with individuals feeling quite free to voice their own opinions. Taking advantage of the new conditions, the project has moved rapidly to involve the private sector with one third of the 21,300 trees planted in 1985 having been planted on private lands and with six privately owned tree nurseries created with project assistance in the past year. These are viewed as very favorable developments. Experience has shown that privately owned plantings generally receive better protection and care than communal woodlots. Also, if the private nurseries prove to be technically, and financially viable, they could make a major contribution towards making the villages quite independent of outside donors or GOG technical service for their planting stock.

16. <u>Inputs</u>

The extension of the project through the end of December 1985 brings the technical assistance provided to a total of 37 months of field activity. As recommended in the midterm evaluation, a soil scientist consultant was hired for a two months TDY in 1984. His

report provides an excellent general analysis of the soil related problems of the Pita area; no results were ever obtained, however, from soils samples sent to the Guinean soils laboratory (SENASOL) for analysis. This is very unfortunate as the soils characteristics on the fonio fallows where most of the projects trees have been planted present the most serious technical problem encountered.

No sociologist was ever hired as called for in the project paper. This is unfortunate for a village level forestry project where questions of land and tree tenure, division of labor between men and women and social distinctions between former slaves and former nobles can all have direct consequences concerning the projects success.

The AMC line of Jeeps was a very poor choice for the project. They have broken down with furstrating regularity with no local supplier of parts

Un unwieldly bureaucracy made the GOG's contribution of fuel and wages for nursery workers very irregular. Salaries for GOG civil servants are not sufficient for them to live on and arrived up to ten months late during the course of the project. Given these very difficult conditions, the GOG project director in Pita did a remarkable job of managing to keep the project functionning.

17. Outputs

The Pro Ag defines the major project output as a technically sound, culturally appropriate, economically feasible and easily accessible set of technical interventions. Specific outputs are defined as:

- --two experimental nurseries producing seedlings for transplanting to demonstration plots plus a surplus to reforest an additional 30 hectares of village lands;
- --three experimental village demonstration plots in sectors (groupings of villages) selected on the basis of willingness to participate and on ecological "representativeness" to test soil conditions and planting techniques;
- --forestry training for the Guinean project director and forestry agents reponsible for the care of the nurseries; this training to take place at the Centre National de Recherches Forestieres, Senegal;
- --soils classification system for the limited project area;
- --composting techniques to provide desperately needed organic fertilizer for family crops;
- --acquisition of new skills: planting, seed selection, and composting for the 4,000 villagers in the six sectors representing 450 families in the project zone.

The project has surpassed the targeted outputs concerning the creation of nurseries, production of seedlings, creation of demonstration plots and in number of hectares planted.

The main failure of the project has been a technical problem of finding tree species with suitable characteristics which will grow well in the extremely acid, impoverished soils of the Fouta Djalon. The Pro Ag stressed the use of fast growing species such as Leucaena leucocephala, Gmelina arborea, and Eucalyptus spp. for fuelwood, forage, soil improvement and protection. The project has opted strongly for Gmelina as the basis of its technical package (Leucaena has failed completely on most sites and Eucalyptus does not improve the soil, is much more difficult to produce in the nursery and is often attacked by termites)

The midterm evaluation was done in May 1984 near the end of the first day season. It appears now that the <u>Gmelina</u> based package was prematurely pronounced, "workable and very appropriate for purposes of fuelwood supply." <u>Gmelina</u> has performed very poorly rarely exceeding 10 to 20 cm growth per year.

Some species planted in 1985 by the AID and FAO projects show promise, but a viable package of agroforestery species suitable for planting on the fonio follows has yet to be developed.

Training of forestry agents in nursery techniques, plantation methods and composting has been good. A one day workshop on agro-

forestry attracted 33 particpants from Waters and Forests,
Agriculture, Espace Verte, USAID, FAO and Peace Corps and was very
well received.

The creation of six privately owned nurseries with project assistance is a very significant output not targeted in the Pro Ag.

18. Purpose

The ProAg states that the project purpose is:

to develop a technically sound, culturally appropriate, economically feasible and easily accessible set of innovations to provide villagers of the Pita region with fast growing trees for fuelwood, forage, soil enrichment and erosion control.

End of Project Status is not defined in the ProAg and no copy of the final Project Paper could be located.

The technical problems of species/site suitability have already been discussed. The innovations seem to be culturally appropriate and have been well received by the local populations. Emphasis on simple labor intensive techniques enhances their econonomic feasibility. The development of the six private mini-nurseries especially increases the chances that the project's interventions can remain readily accessible and economically feasible beyond the end of the project.

19. Goal/Subgoal

The original project paper, before it was amended (see Abidjan 07521), states that the ultimate goal of the project is the improvement of the well-being of the villagers by creating a better harmony between agricultural exploitation and locally available resources. It goes on to state that this goal cannot realistically be achieved within the life of the project.

A subgoal of the project is to serve as a pilot project to develop the experience upon which to plan and design a follow-on "expanded community forestry program."

As foreseen in the PP, the ultimate goal has not been achieved within the three year life of the project. The project has, however, laid an excellent base upon which to plan a follow-on project which should go farther towards achieving the goal of improving the lives of the inhabitants of the project area.

The basic philosophy and approach of the project enjoys excellent support from the GOG. The rapport between forestry agents and local populations in Guinea seems much better than in most West African Countries. The privatley owned mini-nurseries represent a long term potential for a high degree of autonomy for local agroforestry programs. Recent trials and field observations show promise of developing a range of species adapted to specific soils/sites. A large potential exists for greatly expanding the use of live fencing

to decrease the large volumes of wood currently used for brush and post fences. Several types of locally available soil amendments (manure, ashes, compost, dirt from termite mounds) should increase transplant survival and vigor. Ideas for intercropping, field border plantings, and steamside plantings have been developed but not yet tested.

20. Beneficiarries

The main beneficiarries of the project are the villagers in the three sous-prefectures where the project was active. These villages were familiar with planting fruit trees or live fences, but for most it was their first exposure to the concepts of planting trees for their own firewood and forage needs or as a means of improving the soil. Both the USAID and the FAO projectes report that the demand for <u>Gmelina</u> and other non-fruit bearing trees has grown each year.

Six individual gardeners benefitted from project assistance in setting up their own private nurseries.

The forestry agents assigned to the project had almost no prior practical experience in nursery techniques, plantation establishment or in extension work. They all benefitted from formal and/or on-the-job training in these areas. Three agents were sent to Senegal for training in nursery techniques. The Guinean project director benefitted from his participation in the Pittsburgh Francophone Management Seminar.

21. Unplanned Effects

One of the most promising effects of the project resulted from two unsollicited requests from individual gardeners within the project area for assistance in setting up their own tree nurseries for seedling production for sale or for their own use. The project personnel expanded on their initiative by asking if others were interested in doing the same; six small rpivate nurseries are now functioning and the potential for expanding this activities and greatly diversifying the number of species produced looks good. Seedlings produced to date were too small for outplanting in 1985, however, so one must wait for the planting season in 1986 for the first analysis of the viability of this private initiative.

22. <u>Lessons Learned</u>

The midterm evaluation was performed near the end of the dry season after the first year's plantings. Survival rates for <u>Gmelina</u> arborea had been estimated at 85%. This species was pronounced suitable and adapted to the site and objectives of the project. By the end of the following growing season, the survival rate had dropped to 17% and the live trees remaining were putting on very little new growth.

The leason learned from this is that one needs to follow new species introductions through an entire dry season and into the next rainy season before judging the success of a species on a given site.

23. Special Comoments or Remarks

Technical problems remain in finding suitable agroforestry species and planting techniques adapted to the difficult soils conditions in the project area. It is believed, however, that these can be resolved.

Most of the other elements for success seem to be in place. The GOG and Water and Forests Service are very supportive of the project. The forestry agents have a better rapport with the villagers than in most West African countries. The villagers are aware that their crop yields are declining, that soils are becoming less fertile and that firewood and other tree products are becoming increasingly scarce. They are willing to try new techniques to try to reslove these problems. The inclusion of private landowners in the third year's outplanting efforts and the creation of the six privately owned nurseries are encouraging developments. The return of the Peace Corps to Guinea and the assignment of two volunteers to the project open up new possibilities.

It would be unforunate to discontinue this project without a follow-on project to build upon its successes to date.