

A Planning Approach for Rural Forest Resource Conservation and Sustainable Development With a Gender Perspective

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Abstract

Quite often development projects tend to be the result of government initiatives and decisions rather than that of the targeted group. This situation has often lead to failure of the development projects because there is no sense of ownership or participation in designing, decision-making, planning, nor implementation. Most importantly project launching does not bear in mind the gender point of view in terms of roles, responsibilities and perceptions.

This paper aims to demonstrate how a community or group can be involved in rural forest resource management from the initial stage of decision making, to the evaluation stage and at the same time putting gender considerations at the center. The paper adopts the Participatory Rural Appraisal (PRA) technique merged with gender analysis techniques so as to ensure that not only is there participation in rural forest management, but that the process is also balanced in terms of gender. When this approach is applied, it provides the resource manager with an understanding of the different uses, needs, priorities, perceptions, threats and opportunities of forest resource as viewed or conceived by individuals and different gender groups (i.e. men and women). Hence making more effective decisions in project planning and implementation that benefit all players. The project though, will only succeed if the whole community feels they are the owners of both the resources and the project itself and not merely responding to an external initiative that is bound to flounder for lack of the required conditions for sustainability.

Introduction

Forests are highly diverse ecosystems supporting millions of species and supplying a wide range of resources both produce and services. Natural and modified forests provide human beings with a wealth of benefits. They

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provide energy (fuelwood, charcoal) for domestic use, building materials, medicines, and oil to mention a few. Forests are an integral part of the earth's life support systems. They play a crucial role in regulating the atmosphere and climate. Forests regulate local climates, providing generally milder, moister and less variable conditions than place without forests in the same region (NES et al 1991).

Other forest functions are to regulate the local hydrological cycle, protecting soils from excessive erosion and reducing the silt load of rivers, slowing run off, and moderating floods and other harmful fluctuations in stream flow. The forest cover of drainage basins regulates the runoff, and may help to maintain spawning habitat for fish and sustain major fisheries. Forests also provide range for livestock production. (NES et al 1991).

Deforestation has recently become a major concern for many countries in the world. It is one of the most pressing land use problems. Deforestation is occurring around the world on a scale never known before. More than 30 percent of the world's forest is believed to have been deforested (Litvinoff, 1990 in Misana 1999) most of the damage taking place during the last 45 years. By the early 1990s, almost 40% of the earth's land surface had been converted to cropland and permanent pasture (WRI et al, 1996).

Deforestation is mainly a tragedy of the developing countries where high rates have been experienced. These countries are estimated to be losing about 11 million hectares of tropical forests annually and it is projected that about 225 million hectares will be cleared by the year 2000 (FAO, 1982; world resource institute (Misana 1999). Africa is the most severely deforested continent. Forests in Africa are believed to have been cleared 29 times faster than they were being planted in the early 1980s, compared to 10.5 in Tropical America and 4.5 in Tropical Asia (Holmerg et al, 1991 in Misana 1999).

In Tanzania about 10,000 hectares of closed forest were being deforested annually between 1981 and 1985, representing an average annual deforestation rate of 0.4 percent, (Misana 1999). It is said to have proceeded at an average annual rate of 0.5 percent between 1976 and 1980 (Misana 1999). Unfortunately it seems that the human benefit of forests are what have resulted to their ultimate degradation. As a result of poverty, uncontrolled population growth, poor technology, market failure, inadequate government policies, lack of conservation knowledge and uncertain tenure rights, the rural men and women have had to utilize their immediate environment for their livelihood, forests included.

These are several burning issues regarding relation between deforestation and developers worth considering.

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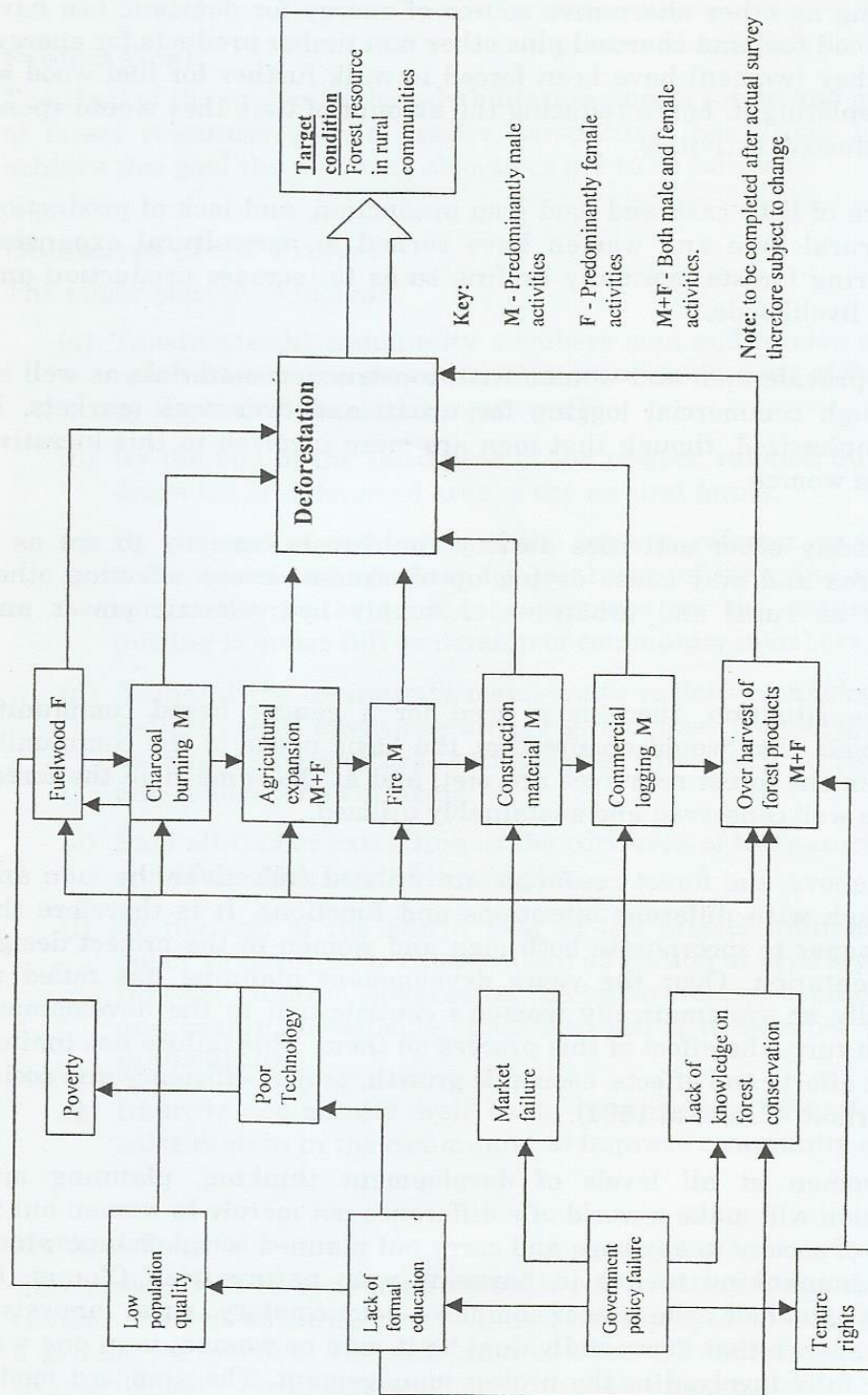


Figure 1 Critical Conceptual Model for Rural Forest Management

Source: Adopted from Margouis, R and Salafsky, N (1998). Initial conceptual model of tropical forest scenario.

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Women having no other alternative source of energy for domestic use have resorted to wood fuel and charcoal plus other non timber products for energy. As a result they (women) have been forced to walk further for fuel wood as they go on depleting it, hence reducing the amount of time they would spend for other productive activities.

Due to failure of both cash and food crop production, and lack of production knowledge, rural men and women have turned to agricultural expansion through clearing forests, normally by fire, so as to increase production and sustain their livelihoods.

Forests also provide men and women with construction materials as well as income through commercial logging for urban and over seas markets. It should be emphasized, though that men are more involved in this lucrative business than women.

These and many other activities destroy the forests capacity to act as a catchment area and may cause drying up of streams hence affecting other sectors such as rural and urban water supply hydroelectric power and agriculture.

To assist the situation, there is a need for a gender based community designed project that would ensure that the basic needs of the community resulting from the forest resources are met, and at the same time the forest resources are well conserved and sustainably utilized.

As outlined above, the forest resources are utilized collectively by men and women, though with different intentions and functions. It is therefore the aim of this paper to incorporate both men and women in the project design and implementation. Over the years development planning has failed to recognize fully or systematically women's contribution to the development process or, in turn, the effect of this process on them. This failure has limited development efforts and effects, economic growth, project efficiency and social justice. (Overholt, C.A. et al 1991).

Involving women at all levels of development thinking, planning and implementation will make a world of a difference not merely to women but to the capacity of society to envisage and carry out planned social change which will permit humankind to live in harmony with nature itself (Young, K. 1997). In a nutshell, the paper employs participatory rural appraisal approach to ensure that every individual be it man or woman, is in one way or the other fully involved in the project management. The proposed model based on democratic community participation in project management sets out to design the modus operandum as shown in the next subsection.

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Project Goal

The Goal of the project is the rehabilitation, conservation and sustainable use of forest resources with a gender perspective (See Table 1). In order to achieve this goal the following objectives are to be fulfilled.

Objectives of the Project

The major objectives include:

- (a) To educate the community members men and women on the various, rehabilitation, conservation and sustainable uses of forest resources by the end of the sixth project week.
- (b) By the end of the third year of the project, reforest 50 percent of the degraded or deforested area of the natural forest.
- (c) By the end of third year of the project, reforest an artificial forest with species, which cater for local use (of men and women), in the community so as to reduce pressure on the natural forest. And putting it under full ownership of community members.
- (d) Acquaint the community members to various technologies which will reduce use of forest resources e.g. bio-mass technology, solar energy as well as agricultural technologies which will increase production and reduce forest clearing.
- (e) Stop all timber extraction in the core area of the natural forest by the end of the fifth year of the project.
- (f) By the end of the fourth year of the project influence government policy to incorporate conservation education at primary school level so that the children understand the importance of conserving the forest and ensure sustainable yields and use of non-timber forest products in the future.
- (g) Improve community well being by ensuring 30% of forest product sales remain in the community to improve community social services.

Methodology

This project will be conducted through participatory rural appraisal (PRA). Gender analysis as a discourse will also be employed so as to give the project a gender perspective. The collection of data will include; spatial, temporal, socio-economic, technical, and institutional data, collectively forming the primary data, and secondary data will be obtained from relevant sources.

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To obtain the primary data, methods such as interviews, discussions, mapping, ranking and direct observations as well as activity profiles will be used.

1. Secondary Data

Secondary data will first be obtained for the purpose of understanding the study area and the resource (forest) better. This will be obtained from various literature which show other studies conducted in the area. Reports on the forest resource and community as a whole will also be visited from the village or district office and district resource or forest management office. Maps, aerial photographs and satellite images will also be used so as to examine the differences and changes of the forest resource, its extent/coverage, and condition over time. Government reports will also assist in understanding the policy on ownership, access to and control over the resource and hence link this information with the utilization and management patterns.

2 Discussions

Discussions will be held at different levels. These include community members, village baraza. There will be discussions with village leaders, to obtain information on the state of the forest resource, problems and prospects related to it and other relating factors.

Discussions will be held with the community members both men and women in a village baraza where by they are to give their views, fears, problems, and prospects on the forest resource and discuss alternatives on the approach the project should take. They will also give their views on the ownership, control and access they have or wish to have on their forest resources.

Discussions will also be held with various community groups such as men and women groups, students, and other institutions and get their separate opinions on the forest resource and their parts/roles in its utilization and management.

3. Interviews

Interviews will be conducted at household levels to men and women so as to understand the different individual opinions of those who may not have a chance to express them in group gatherings.

Village leaders will also be interviewed so as to provide administrative information of the village and especially of the forest resource its utilization and management at the administrative level.

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Elders will be interviewed to get a sense of change of the resource (forest) over time and the traditional conservation practices employed over time.

The interview will also include other members such as various individuals in operating NGO's and institutions such as teachers, forest officials, environmental groups, etc.

The interviews will consist of both structured and unstructured questions so as to acquire both specific replies and also allow voluntary information where necessary. The unstructured interviews will also allow freedom of expression hence provide more information.

4. Mapping

In order to obtain spatial data of the resource and the area as a whole, the community members will be required to map the resource on their own as a transect and as sketch maps. This will provide information on what amount of the forest resource is available, the extent and importance of this resource to the community in relation to the education, class, ethnicity, age and gender structure of the community. It will also indicate other related social, economic, political activities which in one way or other influence the forest resource for example, agricultural activities and livestock keeping settlement patterns etc. This method will also assist in detecting the extent of destruction experienced by the forest resource, and the bio diversity present.

5. Ranking

Community members both men and women will be required to point out the relative importance of particular factors concerning the forest resource such as threats and preferences. They will also collectively vote on the importance of each factor where by these preferences and or threats will be ranked so as to get a priority factor for the project to tackle. This can also be accomplished in a village **baraza**.

But in order to ensure that the needs of both genders are met, separate tables will be prepared for men and women. The exercise will be performed more or less as household interview to ensure individual needs (in terms of gender) are met or recognized and that the project is designed to accommodate them.

Wealth ranking will also be employed so as to get information on the households' wealth status in terms of ownership, education, financial status etc. This is to have a clear picture of the wealth strata and also to determine the communities' ability to manage the project (in terms of resources). This

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exercise will be conducted by the community members through selected key informants who may comprise of village leaders and other members of the community, thus balancing the number of men and women representatives.

Direct ranking by the community members (men and women representatives) and project facilitators. The two groups will form a team and using criteria of their choice community perceived importance of threat or preference. Area covered by the threat/impact, urgency of action to be taken, political feasibility, social practicability and organizational ability (human and financial resources). The team will rank these criteria and the priority factor(s) will be the projects target. This will provide information on the capacity of the community socially politically and economically to carry out the project.

6. Activity Profile Design

The community members will create an activity profile with assistance from facilitators. The profile is to provide information on the gender-based division of labour in the community productive and economic activities) it will consider age, gender, ethnicity, social class and other important factors. The profile will also provide data on the time spent for each of these activities (i.e. as volunteered by the community members). This will enable the community members to select an opportune time for project participation, without disturbing their daily schedules.

Technical data will be obtained from the technical advisers such as foresters, botanists, agriculturalists, ecologists etc. information sought will include, technical information on tree species, soil conditions, planting methods, agricultural methods etc. These technical advisers are to discuss with the community members on these issues. They will also predict likely ecological changes resulting from the reforestation activity.

Monitoring and Evaluation

The project owners (the community members) as the project proceeds will perform monitoring and evaluation on a day to day basis. This process will be facilitated by the responsible NGO or organization of the project. To this end, first, the monitoring and evaluation processes will seek to find out to what extent the objectives are being achieved and whether the activities planned have or are leading to the fulfillment of the stated goal. If not, why? This may call for a change in certain objectives, activities or certain project procedures that are a hindrance to the achievement of the overall goal.

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Second, the indicators to be observed during the monitoring process including, progress in conservation over time, progress of rehabilitation over time and sustainable use reflected by degrees in rate of forest resource depletion (compare before and after effect), should be identifiable. If not this may call for the re-design of new indicators.

Conclusion

This project will succeed if the rural participatory appraisal is sufficiently merged with gender considerations from the point of design to implementation and evaluation. Most important is if all the community members feel they are the owners of both the resources and the project itself and not something imposed on them for a benefit far from theirs.

Despite this positive outlook, there are certain possible risks that could hinder this success. These include, first, likelihood that tree planting may occur at the same time that crop planting is required. Therefore the overlap of the activities may or will most likely affect the tree planting exercise as crop planting is of more importance to the community to sustain their livelihood.

Second, weather conditions could also be a risk. If there is not enough rain to assist the young trees to stabilize after planting, then chances of their survival are small.

Third, if the deforested area has already undergone excessive soil erosion it may be difficult for the trees to grow as most of the nutrients will have been removed from the soil.

Though these risks may have solutions, these solutions require a totally different plan altogether. For instance there may be a need to introduce afforestation through irrigation so as to ensure water availability over unreliable rains. This will require a different set of resources, activities and hence a different plan.

It is important to emphasize that this project is under the ownership, control and responsibility of the community both men and women. Others will only play a facilitating role. The community will decide on how, what, when and where they want their project to be located.

Table 1 Action Plan For The Conservation And Sustainable Use Of Forest Resources: With A Gender Perspective

No.	Objective	Action	Responsibility	Time	Area/Place	Resources
1	Data collection	1. Discussions, Interviews, observations, mapping, ranking. 2. Reading report and village documents	1. Community 2. Facilitators 3. Interested NGOs	-1 st 2 weeks of the project	In the community setting (village)	Financial -Responsible NGO or organizations -Donor (if necessary) Labour -Community -Facilitators Technical Forest officers
2.	Education on rehabilitation, conservation and sustainable use of forest resources	1. Provide eight sessions to the men and women of the community 2. Use audio-visual or audio and visual materials 3. Demonstrations on advantages of conservation using cases of near by villages/communities. 4. Seminars and workshops. 5. Traditional conservation	1. Community 2. Facilitators 3. Interested NGOs 4. Forest department (District)	-3 rd week of project to 6 th week	-In community setting	Financial resources will be obtained from concerned NGO(s) or organization, individual contributors and were necessary Donors and community Labour will be provided by the community, facilitators, NGO(s) and other environmental organizations. - Technical resources will be provided by Agriculturalists, educationists.
3.	Afforestation of natural forest	1. Preparation of seeds and tree nurseries 2. Division of area in equal portions and 3. Tree planting in groups (community member) of men and women on allocated portions	1. District forest officer (Technical advice) on seeds and appropriate species)	-From 2 nd month of project of Natural forest.	1. Selected area near natural forest (for nurseries for ease of transfer 2. Tree planting will take place in deforested area of Natural forest	Financial Community members will provide financial support in accordance to their resources and will identify other possible sources of financial that they could access e.g. (local government).
4.	Afforestation of artificial forest	1. Community select area easily accessible for daily needs. 2. Examine suitability of area selected in relation to species suggested by community. 3. Seed and tree nurseries preparation 4. Division of area into equal portions 5. Tree planting in groups in allocated portions. * These activities may go hand in hand with those of objective No. 3.	1. Community (men and women) 2. District forest officer, soil surveyors Botanists, Agriculturalist. 3. Concerned NGO(s) Any other concerned organization or institutions	2 nd -3 rd month of project (seed and nurseries preparation)	1. Community selected area in the village setting. - Tree planting will depend on length of time needed for seeds to germinate	NGOs and other organisations, institutions and individuals concerned with conservation matters. Fund raising activities, outside Donors (if necessary and central government through Ministry of Natural Resources and Tourism. Labour will be provided by community members and assisted by facilitated organisations. Technical advice will be from Agriculturist, botanists, ecologist, foresters.

5.	Acquaint community to new technologies	<p>1. Demonstrations and training sessions on how to construct and use other technologies which either use very little or non of the forest resources.</p> <p>2. Community collect local materials from their own surrounding e.g. cow dung (for energy generation i.e. bio mass).</p> <p>3. Introduce energy technologies e.g. biogas, solar energy etc.</p> <p>4. Introduce agricultural technologies e.g. new seeds, mechanized farming, irrigation, use of natural manure etc.</p> <p>5. Community members (especially elders) explain and demonstrate other traditional technique which serve the same purpose.</p>	<p>1. District or village agricultural officers.</p> <p>2. Community (men and women)</p> <p>3. Concerned NGO(s)</p>	<p>- Period awaiting seed germination</p>	<p>- In open areas of the village setting to allow greater participation</p>	<p>Financial resources will be provided by community members, concerned NGO(s) and other agricultural and environmental or funding organisation</p> <p>- Labour will be provided by community members and facilitated by concerned NGO(s)</p> <p>- Technical resources will be provided by agricultural specialist experts from different learning institutions e.g. universities, colleges etc.</p>
6.	Influence government policy, to incorporate conservation education at primary level	<p>1. Hold meetings with the government officials from ministries of education and Natural resources and Tourism</p>	<p>1. Concerned NGO(s)</p> <p>2. Project Director</p> <p>3. NEMC</p> <p>4. Community (Representatives)</p>	<p>1st 2 years of the project</p>	<p>Ministry of Education</p>	<p>Financial Community, and responsible NGO(s)</p>
7.	Stop all timber extraction in core areas of the natural forest	<p>1. Implement policies to phase out concessions</p> <p>2. Hire forestry specialist to monitor concessions in forest area</p> <p>3. Community forest patrol to ensure no logging activities</p>	<p>1. NGO Director (of Project)</p> <p>2. NEMC officials</p> <p>3. Director of forest reserves</p> <p>4. Community</p>	<p>1st six months of project</p>	<p>Ministry of Natural resources and tourism</p>	<p>Financial Community, responsible NGO(s), NEMC and other concerned parties</p>
8.	Improve community well being	<p>1. Hold meetings with Ministry of Natural Resources and Tourism to negotiate on the importance of community share in resource revenues. (in this case forests).</p>	<p>1. Project NGO Direct or</p> <p>2. NEM officials (forest division)</p> <p>3. Director of forest reserves</p> <p>4. Community</p>	<p>1st - 2 years of the project</p>	<p>Ministry of Natural Resources and Tourism</p>	<p>Financial Community Responsible NGO(s) - NEMC and other concerned parties</p>

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