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SOCIAL FORESTRY IN WEST AFRICA: MYTHS AND REALITIES

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When, in the early 1970s, it became increasingly evident that forestry and agricultural policy was failing to provide adequate trees for traditional needs (fuel, conservation, food, income, etc.), many West African countries turned to social forestry. It was a brave experiment with little precedent for guidance. A number of these efforts have already proven to be failures. As the first rush of enthusiasm for social forestry is dying, programmers are making assessments of the myths and realities upon which some of these early efforts were based. They are tracing the historical development of social forestry, its goals, and its record. There is little option except some type of social forestry for planting and maintaining adequate numbers of trees. We must, therefore, identify possible guidelines, tools, and models for more successful future projects.

During the colonial period, most West African countries established forestry services mainly to protect the national forest land and to exploit it for timber. In many countries these services also organized tree planting along roads, around administrative buildings, in experimental plots, and in some cases in timber production plantations. Forestry policy in this era was not focused on locally perceived needs. Labor for planting and maintaining these trees was frequently not voluntary. Residents had no part in selecting areas to be classified or planted and sometimes even no control over their own participation. In some areas older people still speak of the fear of punishment if the trees died. They call these lovely trees lining the roadways

"colonialist trees." It is no accident that in current roadwidening activities the trees are often cut along both, and not just one side of the road.

As West African countries gained independence during the last twenty years, forestry services have struggled to maintain or increase their roles in their own country's development programs, despite low levels of funding. In the 1960's some forestry policies began to include not only the protection of forests from local residents, but also the provision of seedlings and the planting of trees for local use. These programs are called "social forestry." Although definitions of social and community forestry differ, both terms indicate planning projects of the greatest benefit to the socio-economic needs and abilities of the local residents. Social forestry could indicate working with individuals, with families or with communities as opposed to community forestry which generally focuses at the community level.

Several examples of planting trees for local use in these early years came from both Anglophone and Francophone West African countries. For instance, in one region of the Cameroons the forestry service decided residents needed trees near their villages to provide convenient fuelwood and to discourage wood pilfering from the forestry reserves. When foresters constructed protective fences for the planting, local men, afraid the land would be nationalized, tore them down. However, women members of a local corn milling society discussed the advantages of convenient fuel and came out in force to help repair the fences. The local men finally abandoned their resistance and joined their wives and the foresters in planting the trees. (O'Kelly, 1979)

In Ghana foresters discussed woodlot sites with selected village leaders and in certain areas encouraged taungya planting (the raising of vegetables between the trees until the trees grow too large). Foresters reported that the women, who raise the vegetables in that area, were pleased to have the land

made available to them, and the trees grew better by their keeping the soil loosened and the weeds down. (O'Keefe, 1981)

In the early 1970's the Department of Forestry of the Food and Agricultural Organization of the United Nations (FAO) with Swedish financing, organized international conferences on the topic of social or community focused forestry. (FAO, 1978) Forestry policy planners were now aware that the situation had changed. First, as wood and land resources became scarce in some areas, the traditional approach of keeping local people out of forestry reserves and of classifying new areas for reserves when needed, became less politically feasible. Second, foresters and others became increasingly aware that forestry skills and information was needed by local farmers in their struggle to provide basic human needs for their families. Third, resource problems foresters were asked to solve were so great, and forestry funds so limited, that local input and goodwill would be essential. Forestry policy makers were hopeful that projects could combine forestry expertise with community development methods to inspire local people to participate. Participation was not to be forced as in colonial days, nor limited to paid laborers since there were not enough funds. Rather by developing in participants interest in the value they would receive from the project the trees would become "theirs." Goals varied but at minimum required developing projects which were: 1) ecologically sound, 2) locally supported, 3) nationally sustainable, and 4) designed to solve local needs with equity, particularly helping those already disadvantaged.

In West Africa a number of donors, including non-governmental organizations (NGOs), were eager to change their programs from the emergency relief necessary during the 1973-78 drought, to community development programs. A number of tree planting projects began to address local interests or needs. The Church World Service worked with residents in Niger to plant palms important in local

construction. CARE supported local participation in Chad and Niger to stabilize dunes, using trees which also provided valued secondary products. CARE also furnished seedlings for school woodlots in Sierra Leone designed to provide fuel for school meals. FAO worked with the Senegalese forestry service to stabilize maritime and inland dunes with the intention of involving residents. In a number of non-Saharan countries of West Africa, donors and forestry services worked with communities to plant cashews, oil palms and other trees as cash crops. These projects were all designed to address local needs but in fact the perception of them ranged from those identified by participants as "theirs" to those seen as being imposed from outside. Some activities were integrated in the ongoing social economic life of residents; others, however, were in conflict with local priorities for use of land and labor.

A project considered a model of integrated community development comes from Lagbar, Senegal. Following a study by a Senegalese rural sociologist, the Senegalese government decided on a concerted effort to improve the life of the transhumant herders and their families living in scattered households around this central well point. Local priorities, including improved access to water, a health service, a school, and a gardening project were addressed by residents in that order. They had the support of various governmental agencies. The program was facilitated by a development agent living in the community. The residents chose as the next priority trees to provide income (gum, arabic), fodder, and shade/fuel. The forestry service sent a personable young forester, wearing neither the traditional uniform nor gun, to live in the community. He offered technical advice and support needed by residents in selecting the species of trees and their placement. After preparing the site, residents agreed to return to plant the day after the first rain. At the appointed time they arrived from their scattered homes in the surrounding region in larger

numbers than had been expected. They planted the trees so quickly they decided to increase the planting area the following year. This project was unusual in the breadth of community involvement in identification, design, and implementation. Its success was due to a combination of supports including the skill and dedication of the involved development agents, governmental commitment to participatory development, inter-agency cooperation, and the flexibility and patience of the Swiss private voluntary agency which assisted in the funding. The project attracted the attention of neighboring communities, several of which are now starting similar activities.

As efforts for socially sensitive integrated development programs were getting started, donor interest was also being drawn to world wide ecologic and resource problems. Such publications as Eckholm's Losing Ground: Environmental Stress and World Food Prospects aroused concern. (Eckholm, 1976) The U.S. Foreign Assistance Acts instructed American aid policy makers to focus U.S. emphasis on forestry projects which stressed "community woodlots, agro-forestry, reforestation, protection of watershed forests and more effective forest management," and an increasing availability of acceptable and affordable energy to rural populations. (See Ulinski, 1979) Social forestry was to be the major focus for American as well as other donors.

Interest in funding energy projects increased as donors faced energy scarcity in their own countries. Many authors stressed the urgent need for vast increases in afforestation, especially to meet the domestic fuelwood requirements in less industrialized countries. For instance, one set of statistics showed that Sierra Leone, Niger, Mali, and Nigeria would have to increase their rate of planting 5, 7, 8, and 10 times respectively if they were to be able to meet domestic requirements (cook their meals) in the year 2000. (See Gulick, 1978)

Funding increased through bilateral, international groups and regional commissions for projects reflecting the concerns of donors. Funds were frequently compartmentalized with less emphasis on integration. One group of funders looked mainly at rapid fuelwood production for urban and/or rural use, others looked at rapid distribution of fuel saving technologies including wood stoves, and still other projects focused on specific ecological problems. Some project designers continued to insist on local participation not only in implementation but also in project identification and design. However, more designers, assuming their own priorities were bound to be reflected by local residents, traded this goal for speed and ease in implementation. When community woodlots were planted without local support, foresters often stated they expected successful woodlots would stimulate future local interest in increased tree planting.

Large plantations combined with quickly implemented woodlots of fast growing exotics were projects which greatly appealed to many Western trained West African forestry service officers. They saw these programs as a way to make their services visible to their own government as well as a way to develop important new funding sources for building infrastructure and for future impressive tree planting activities. Local level forestry agents also felt more comfortable in such programs since these men were neither trained nor rewarded adequately for the smaller and slower starting community directed projects such as the one at Lagbar.

The temptation to apply this popular model - quick growing fuelwood plantations around cities, quick growing woodlots in rural areas and rapidly introduced fuel saving technologies - is so great that the model may be called for even when the trees, the technologies or the model may be completely inappropriate. Though it is seen as social forestry by the donors, it cannot be social

forestry if it does not, in fact, address local problems. I was on a design team asked to apply this model in a situation when all three proved to be inappropriate.

The government of Sierra Leone had asked the FAO team, of which I was a participant, to design a program to address the identified problems: forest cover was disappearing in their country; farmers were cutting down trees but were not replanting; and the cost of wood and charcoal was going up in urban areas. Some local foresters suggested to the design team that to solve the problems the following should be done: plant a greenbelt in relatively vacant land around certain large towns; devise a plan to give seedlings of fast growing fuelwood exotics to farmers; introduce improved technologies for charcoal making; and prepare a consciousness raising program to make locals quit cutting trees.

Field trips and discussions with local women and men revealed that in this humid tropical country the forests were disappearing due to land pressure an agricultural, not a forestry, based problem. Fuelwood used by farmers, as well as that sold to truckers for urban areas, was the waste from trees cut in clearing fields; none was cut for fuelwood alone. Greenbelt plantations would have, in fact, disrupted the lives of countless rural families as these areas were not "relatively vacant." It appeared that improved transportation and marketing infrastructure could make enough wood wastes from the more distant farms available to adequately supply most urban needs. At the same time this approach could give added income and off-season employment to poor farmers.

On the contrary, giving the farmers seedlings to plant would have only amused them, unless, of course, they first found markets for the piles of wood they had left over from land clearing. If there were an assured market

for the wood, farmers declared they would gladly grow trees, especially legumes, on their fallow land. In one area where the cash crop is tobacco, farmers already raise and sell wood for processing their tobacco. Charcoal makers increased charcoal prices in a village meeting merely to keep up with inflation. Since they suffered neither wood nor labor shortages, new technologies to save wood and burning time but which would require an investment, limit where charcoal could be made, or require moving kilns, was not likely to be accepted. They identified their greatest constraint to increased production to be market facilities and transportation. Finally, local women and men constantly spoke of their dependence upon trees and concern over increased clearing of forests for agricultural uses. A program to tell them to quit cutting trees would have been pointless.

Local residents wanted a forestry program. They wanted to learn about agro-forestry technology, the use of legumes to enrich their soil, and they wanted seedlings made available for species offering secondary products they valued or which could be sold. Designing a forestry project here without socio-economic information, which both women and men gladly provided, would have risked developing a completely irrelevant project. (FAO, 1980)

The World Bank is involved in a number of the more quickly implemented "top down" projects; however, their forestry advisors were among the first to signal concern over lack of success when socio-economic information from the involved residents is ignored. In a courageous and perceptive critique of their own programs, Bank foresters described an experience in Niger in which angered villagers who needed fodder more urgently than fuel removed the fencing and let their animals browse on fuel trees newly planted on their traditional grazing grounds. (World Bank, 1978)

FAO projects in Upper Volta and in Senegal have been badly damaged by fires started, in one case over a land right dispute, and in another over new regulations on wood use. An evaluation of a number of other village woodlot project failures in Upper Volta, quoted villagers as wanting more fuelwood badly, but they saw no relation of addressing this need to the "outsider's project". (CESAO, 1980)

Various project evaluations and informal assessments by programmers and project managers in the field describe failures over lack of socio-economic information on leadership, on control of benefits, on strength or inadequacy of forestry service infrastructure, and on absorptive capacity of host governments related to available funding. Their stories include projects of stoves which could not cook local dishes or stoves which, when taken from the laboratories and put in the household situation, ended up using more, not less, fuel. They include tales of consciousness-raising programs to teach farmers not to burn or cut trees without offering alternatives. They speak of national tree planting on internationally specified days which are completely inappropriate to the seasons in West Africa. They describe failures based on lack of socio-economic information on local beliefs about trees, labor pressures, sex-typed tasks, and local priorities.

These failures must not mean we should give up. Trees need to be planted. Many rural residents are vitally interested in wood or tree related products or resources. Donors are interested and concerned. Things are already happening. A 1980 report showed that West African countries are currently involved in forestry and related stove and charcoal projects funded to well above \$165 million. (Howe and Culick, 1980) A few of the actual projects are based on developing teak for export, some are for building infrastructure, and well over \$22 million is being used in data collection. The vast number

of the rest of the projects are dubbed as social forestry since they are designed to fulfill needs of the local society. However, if these projects are judged by the four goals - 1) ecological soundness; 2) local support; 3) national sustainability; and 4) ability to solve local needs with equity, many of them will be failures. The failure will not be because they are not based on the Lagbar model. This model was tailor-made for a specific community with specific needs and strengths and with unusually favorable political and personnel support. It is not always possible to attain such an integrated and participatory program, although the success may be remarkable when the situation is right. But many failures will be because the designs which were used were based on myths instead of realities. Four of these myth/realities are particularly frequent in forestry program design in West Africa.

Myth one is that fast growing exotic species are always the only trees that can successfully fulfill current needs and are the only trees of interest to local populations because they grow more quickly than local species. Reality one is that projects with single stands of rapid growth exotics, especially in the Sahel, seldom fulfill any of the above four goals. Technically the projects frequently fail especially in areas below 800 mm of rainfall. I am not a forester and cannot identify exactly why, but I have seen dozens of dead eucalyptus plantations and plots in Senegal, Upper Volta, Niger, and Mali. Sometimes the trees get to be 5 to 8 feet tall before they die so they are described in early project documents as successful and are seldom evaluated after they have died. What grows well in carefully tended test plots does not always compete well with natural vegetation. In Senegal even the test plot which foresters used to show me (to prove me wrong) is now dying. Economic studies are beginning to indicate that these plantations are not economically feasible, especially in the Sahel. New information about the enormous cost of killing and destumping

the old plantations so replacement trees can be planted must now be added to the equation. (Beát, 1979; Sawadogo, 1981, Weber, 1981) Socially and culturally these trees are frequently not acceptable. (Winterbottom, 1980; SAED, 1978) Rural women discuss how not only is eucalyptus disliked as it makes food taste like vaporub but that the rapid growing species they have seen are all light weight requiring twice as much wood to do their cooking. I listened to a forester telling how he was trying to get women to use charcoal made of these species and women were resisting partly because it too was light weight and took twice the amount to cook the meals. In answer to my question why were they so eager to get this charcoal accepted, he responded, "Because these trees grow twice as fast." I have never seen a place where fuelwood was the only problem. If trees can provide fodder, food, income, or other useful and locally valued secondary or tertiary products they will be much more highly valued. In places where the trees are planted to meet local needs, it is important to ask locals what they need. Ecologically, monoculture plantations of these trees are also not desirable or feasible. (Weber, 1981)

The second myth is that it is easy to identify the needs of a community upon which to design a program. The reality is that a project cannot raise maximum amounts of food, forage, and fuelwood on the same piece of ground at the same time and therefore cannot solve competitive needs equally. There are always conflicting needs - urban vs. rural, herder vs. farmer, landless vs. land holders and women vs. men. The last pair, women vs. men, should perhaps be explained especially for those not familiar with West Africa. In that region women and men usually have separate but complementary traditional responsibilities to the family. Men seldom know all the plants and trees women use for food or in the household, and men may use certain plants for medicines for the animals that are unknown to women. Men may want trees to

to bring cash while women, tired of carrying fuelwood further and further, may select different trees. Fulfilling local needs will always require trade-offs, and as resources become more strained by increasing populations and urbanization, the difficulties in selecting trade-offs will become increasingly serious. It is important to recognize those disadvantaged and those advantaged by each project design, and attempt, with the residents, to minimize the losses. Although maximum amounts of food, fuel, and fodder cannot be grown on the same ground, a recognition of the varying demands may help planning for a better mixture of species or a selection of trees which have multipurposes. How the trade-offs are made will also determine how the project will fulfill the goals of being ecologically sound, locally supported, nationally sustainable, and equitable.

Myth three is that village woodlots are simple to establish on vacant communal land and run along traditional lines with the chief as spokesman. In reality, in large areas of West Africa there is no communal land, communities are not unified with single goals but instead contain a number of conflicting and competing sub-groups, and the chief may not even speak for the majority. In a number of cases the traditional chiefs and religious or political leaders can enforce getting the trees planted because of their power. However, equitable distribution of benefits may not occur. Only the leader's family may receive the profit. Some social scientists have gone so far as to suggest that no communal projects are possible, and that only family groups or individually owned trees will actually be maintained and distributed with equity. (Thompson, 1979; Nahrana, 1980; Tucker, 1980) I would not go so far, but would caution that the model of communal woodlots is not an easy one to apply. In any case, social and economic organization of an area must be understood and details of input, maintenance, and distribution worked out completely during the planning

stage. Management plan contracts are useful tools in identifying, and overcoming potential conflicts.

The fourth myth is that if one only has enough information, rational decisions will be made nationally, regionally, and locally. The reality is that information alone will not assure rational resource management and planning. In 1980 alone more than \$22 million dollars were spent in West Africa for satellite, aerial photography, and inventory studies, and much more was being spent globally on studies which will add more information about West Africa. Already there are banks of data in various capitals which are not being used. Sometimes the same data is being re-collected by other groups. It is not that I believe information is unimportant. Quite the contrary, I have worked with earth satellite projects and have found inventories and aerial photos very useful in program planning. However, it is naive to assume that national, regional or local leaders will always make rational choices given the facts. (After all, look at the way the Americans have responded to the information that fossil fuel is limited.) Forestry policy is based upon a complexity of political and economic choices and must go through knots of bureaucratic ribbon before it comes out at the regional and local levels. Without selection between goals, dedication to give these goals priority support, and bureaucratic and management orientation to make the process of reaching selected goals possible, no amount of data can ensure rational resource planning. The same is true at a regional level or the local level. A region may contain various ethnic groups competing for the same resources or with conflicting priorities; a village may be replete with economic and power struggles. Many programs are designed to inform farmers about rational behavior (do not burn the grass or the soil will be ruined) when in context he has no option available (how else can he develop fodder for his hungry cattle?).

However, there are projects which have addressed local socio-economic needs and are ecologically and fiscally responsible. There are projects currently being designed or in progress which are not based on myths or pre-packaged formulas. There are tools being developed which will be useful in future social forestry design.

The AID forestry project in Guinea, for instance, is designed to provide locally selected fodder trees so that burning can be reduced with the result that natural vegetation can provide some of the future fuelwood. Evergreen fodder tree seedlings will be made available to individuals to plant around their homes in areas already used for fruit trees and protected from fires. Nurseries will be developed in local rural school gardens so girls and boys may participate. This will make seedlings locally available without taxing the already strained forest service resources. Successful local fruit tree growers will be asked to participate as resource people for the schools.  
(AID, 1980)

In German woodlot projects in Upper Volta and Mali, residents are currently incorporating soil conservation techniques. In the Gambia, where people fear their bridge will fall if they cannot control the erosion soon, residents have also become involved. Several plantation projects are successfully employing the taungya system in Senegal, Sierra Leone, etc.

The FAO social forestry project proposal for Sierra Leone suggests using more economic tree crops (coffee, cocoa, pineapple, peppers, etc.) which grow well in controlled shade in combination with locally selected taller forestry species. It also suggests solving urban fuelwood needs through market, transportation and private enterprise supports for rural farmers. The Lagbar model is spreading to appropriate areas and being modified as local conditions suggest.

An exciting new project in Niger deserves special mention. The Nigerian government has designed a comprehensive Forestry Land Use Planning program with the support of AID. One aspect of this program is a collaborative effort of foresters with villagers who live near the forestry reserves to manage the reserves to serve local needs. The villagers may not cut trees for farming, but otherwise they have great flexibility in suggesting management alternatives. In one case farmers identified wanting to increase production of a special grass already growing in the reserve which is useful for making mats and roofing. Residents not only use mats and roofing but believe surpluses can be sold. They informed the foresters that this grass can be produced best by controlled burning. The foresters, although not entirely convinced, have agreed to let the villagers try. Villagers and foresters will develop an agreement to employ this plan on a demarked area. For their part, the villagers are to control the fires, burning is only in the test area and to see that the reserve is otherwise protected. Residents in a neighboring village would like to produce honey and have asked for more expert information on how this best can be done. After they hear what experts have to say, they will select a management plan in keeping with honey production. This collaboration will give the villagers a stake in protecting the forest land and may help develop more useful management techniques. (AID, 1979)

One useful tool which was developed by the Sahelian countries is a series of ecologic guidelines. These guidelines are useful in identifying possible negative social and physical consequences of a potential project. All the eight Sahelian countries have, in principal, adopted the use of ecologic guidelines for project planning. (CILSS, 1979) Also, more projects, such as the cited reserve management in Niger, are using management plan contracts to identify long and short term goals, inputs, outputs, and responsibilities,

with residents and all participating agencies and donors during the project design. (Hoskins, 1979).

If one agrees that Social Forestry is forestry designed to best fulfill the needs of local populations, then all forestry activities should be social forestry. Most West African forestry services have asked for help in designing and/or implementing social forestry programs. We have examples of projects designed to give the largest advantages possible to rural dwellers while serving urban needs, or providing locally needed products as well as the potential for cash for surpluses, of producing fuel while improving water and soil management, or of managing national reserve land to the advantage of both the forestry service and local people. It is time to take the tools and project successes which we have developed, to see in what way they may be used or modified to improve our future social forestry programming.

It is also time that we who work in project design, implementation, and evaluation do what we are asking host country forest policy makers to do. We must take a hard look at the realities and make more rational (in this case potentially successful) plans. Our goals to develop projects which are ecologically sound, locally supported, nationally sustainable, and designed to solve local needs with equity, must be the basis for all future programming. We will have to drop the myths which made prepackaged projects so easy. There are no universally perfect pre-selected trees, community needs, organizational formats or solutions based on yet more data. Social forestry requires an understanding of the social environment. We will have to become more responsive to information local planners, foresters, and most importantly, local residents can provide.

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