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The Tree Gardens of Haiti: From Extraction to Domestication

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In this paper I will be discussing the Agroforestry Outreach Project (AOP), a tree-planting project in rural Haiti in whose design and management there was an unusually high level of participation by several anthropologists. Though the details of this particular case are interesting in themselves, here they will be used principally as a vehicle for examining the relative advantages of "privatized" versus "collectivized" approaches to planned natural-resource interventions.

Conservation advocates are often opposed to privatization. They correctly point out that the intrusion of an extractive, privatized income-generating approach to land where tropical forests currently stand leads more often than not to the destruction of natural biodiversity. Whether forest is transformed to pasture in the service of the "McDonald connection," or to monocropped eucalyptus or pine stands for international lumber markets, the application of a private-property orientation to land formerly controlled under "tribal" communal patterns is lamented as a major cause of environmental destruction.

In this paper I will be making something of a reverse complaint. My contention will be that the legitimate

conservationist concern for protecting natural biodiversity is often translated into a theoretically misguided attempt to preserve, revive, and/or impose collective management strategies where they are anthropologically inappropriate. The experiences of a Haitian tree-planting project will be used as a vehicle for discussing this matter.

The Agroforestry Outreach Project

The Ethnographic Background

On the surface, Haiti seems like an unlikely candidate for creative rural tree-planting efforts. Descendants of slaves on Western Hispaniola who revolted from France Haitian villagers for the most part continue to adhere to the peasant adaptation that emerged in the 19th century. Land is privately owned, inherited from both parents, transmitted to daughters as well as sons, and legally marketable to the highest bidder, though both law and custom mandate the right of first refusal to kin. Farmers plant their land in a combination of New World crops (maize, beans, manioc) and exotics introduced during the colonial period (rice, yams, sugarcane, coffee, plantains, and many others.) Poultry and some mammalian livestock are also present in most rural holdings. From the beginning of Haitian colonial history rural women have sold much of their family's produce in local markets.

The disappearance of tree cover from Haiti is often prematurely attributed to the peasant land-use system. In reality, however, deforestation had already been launched

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during the French colonial times. Foreign lumber companies continued the process after independence. As for peasant input into deforestation, whereas earlier generations of peasants felled trees for their own use and to clear land for agriculture, the commercialization of the forests to produce boards, poles, and charcoal now provides an autonomous incentive, independent of agriculture, for their descendants to collect whatever wood they can find. Their need for this alternative source of income increases in proportion to the decline of holding size and soil fertility, accelerating even more the race of farmers to cut down the few remaining tree stands.

Pre-project Research

In the mid 1970s USAID was invited back to Haiti, having been expelled in the 1960s. The local mission began exploring ways to fund programs for reforestation and soil conservation. Basing his conclusions on an extensive literature review, a USAID economist (Zuvekas, 1978) had hypothesized insecure land tenure as a major disincentive for Haitian peasant tree planting. In view of research I had recently done on Haitian peasant land tenure (Murray, 1977), USAID invited me to do several months of fieldwork to assess the validity of this hypothesis and to recommend action strategies (Murray 1978a; 1978b; 1978c; 1978d; 1979). Other anthropologists carried out similar pre-project feasibility probes (Conway, 1979; Smucker, 1981; 1982) as did other professionals, including economists, foresters, and lawyers (Earl, 1976; Bengé, 1978; Thome, 1978; Voltaire, 1979; Smith, 1980).

Conceptual Paradigm Shift

From all of this baseline research I wrote a USAID "Project Paper" on "Social Soundness Analysis" (Murray, 1980). At this stage of its local evolution, the USAID mission was unusually open to anthropological input. The result was a maverick project strategy that began with a fundamental paradigm shift -- a radical anthropological redefinition of the Haitian "tree problem" -- and followed with program measures logically consistent with this redefined paradigm. The paradigm shift was based on the cultural evolutionary analogy between the domestication of food and the domestication of wood production. (This concept will be discussed below. (Cf. also Murray, 1984; 1987)) The programmatic result of this shift was a project that downplayed conservationist and protectionist

themes and brought to the fore the theme of introducing the planting of wood as an income-generating crop on the holdings of the Haitian peasant.

Tripartite Program Design Model

Abstract paradigms must be translated into concrete program measures. Though technical planning is important, the truly decisive variables determining the fate of tree-planting efforts are not technical, they are behavioral and institutional. I proposed a tripartite model of project planning that gave equal weight to three project components: (a) technical strategies, (b) benefit-flow strategies, and (c) institutional strategies.

Technical Strategies

The first element, the technical component, was to switch from an ecological reforestation theme to a microeconomic agroforestry theme. For the traditional program emphasis on the ecological utility of trees we substituted a more dynamic emphasis on the economic utility of trees to those producing them, specifically the income-generating potential of some of the fast-growing wood. The seedlings supplied by the project are in their vast majority fast-growing trees (e.g. *Cassia siamea*, *Leucaena leucocephala*, *Eucalyptus camaldulensis*) with commercial potential in Haiti's current lumber or charcoal markets.

In line with the agroforestry theme, the trees are planted in association with crops. Other projects had also planted trees near crops, but they viewed the tree as a permanently installed protector of the soil or enricher of the crops. The Agroforestry Outreach Project (AOP) in contrast, without ignoring ecological utility, nonetheless furnishes wood trees first and foremost as an income-generating wood crop. Whereas other projects assumed that the trees would be protected, AOP assumed that they should and would be harvested. Though now taken for granted, in Haiti of the 1970s this concept was viewed as novel, both by the Haitian farmers and by the USAID mission.

Benefit-Flow Strategy

Secondly, in line with this theme of wood as a crop, AOP applied to trees the same proprietary and usufruct rights that govern traditional access to any other crop:

total control by the domestic unit planting the trees. Communal ownership modes imposed by planners in many other countries were rejected. Not the state, not the village, not the extended kin group, but the individual household is the owner of the tree. The purpose was to endow planters with the same proprietary rights over wood as they have over the corn or beans that they plant. Though some other projects had also furnished seedlings for private planting, there was a tendency to invest the state or the project with some residual protective rights over the planted trees. AOP in contrast presented wood as simply one more privately planted crop.

Institutional Strategy

The third core component of the project was the controversial institutional component. Privatization was to apply not only to the ownership of the trees, but also to the channeling of the funds earmarked for producing those trees. With this in mind the project went around the Haitian government and established alternative linkages between project funds and peasant tree planters. Though hotly contested during project design, this arrangement was finally accepted under pressure from USAID Washington.

A Washington-based organization was given the grant to hire Haitian and expatriate staff. (I was Project Director for the first year and a half.) We opened an office in Port-au-Prince, sent regional agroforesters to different parts of the country, and entered into agreements with private voluntary organizations (PVO), most of them religiously affiliated, working in the rural areas. These organizations, most of them already involved in the delivery of economic, medical, or educational services, had preexisting contacts with a rural clientele. When familiarized with the special income-generating approach to trees that our project was adopting, they agreed to collaborate. These PVOs selected, hired, and supervised the part-time village-based animateurs who were the final link in the chain between project and peasant cultivators.

This use of a remunerated structure of village animateurs turned out to be one of the key organizational breakthroughs that led to the success of the project. Previous projects for the most part had either expected village organizers to work for free or hired outsiders to travel from village to village as project employees in an organizational or monitoring role.

In AOP we adopted an intermediate solution. No payment was given to farmers for their own participation.

They were given free seedlings; however, they were to supply the labor themselves, as they would do with any other crop. Nonetheless there were several tasks that somebody else had to do: explaining the project to the farmers, identifying those willing to plant trees, delivering the trees, giving simple technical assistance on the planting and care of the trees, and doing follow-up survival counts. To carry out these tasks, we contracted with specially selected farmers who would be working with kin and neighbors in their own communities.

Rather than expect these animateurs to volunteer their time and labor for free, as projects often do with village-based organizers, we remunerated them on a part-time basis, according to the number of specific tasks they carried out. Since a larger number of farmers required a larger investment of animateurs' time and resulted in higher levels of project recompense, it was in their direct economic interest to recruit as many farmers as possible. To ensure honesty, random site visits were made by full-time employees of the project itself.

Comandantes, Pedagogues, and Negotiators

In several ways therefore the interaction between staff and clientele in the AOP differed from what is often found in projects in rural Haiti (and elsewhere). There are two particularly maladaptive interactional modes that were abandoned in AOP. In many tree-planting projects, particularly those run through government agencies, project staff relate to project clientele in what could be called a "comandante mode." Tree planting is to be done, the farmers are told, because the authorities have determined that trees are necessary. A second mode, less forceful but equally incapable of sustaining long-term cooperation, is the "pedagogic mode," by which staff view their role as that of educating the uninformed. In the comandante mode, farmers will presumably obey the authority of the state. In the pedagogic mode, farmers will spring into grateful action once their minds have been illuminated with new knowledge.

The AOP rejected both of these interactional modes in favor of a third strategy, that of a negotiator mode. It was openly recognized that project staff and villagers have quite different agendas, each of them valid. For a variety of reasons, the project and its implementing agencies were interested in seeing trees in the ground. For equally legitimate reasons, villagers were interested in maximizing income from, and minimizing risks to, their land. We would negotiate an operational compromise, in which project resources could be channeled so as to

permit both project and farmer to pursue modified variants of their own agenda.

In adopting this negotiator mode, the project explicitly rejected an authoritarian command mode and treated the farmers instead as free agents whose participation was to be completely voluntary. The project also dropped the pedagogic tone common in many projects. Though we did not romantically assume perfect wisdom and knowledge among farmers -- we have information about tree species and planting techniques that they might not have -- we nonetheless assumed that farmers also had information about local ecological and economic constraints that they could share with us.

Utilizing this negotiator mode, the project was thus promoted in the idiom not of altruism or of concern for future generation but of reasonable economic returns for land and labor invested. The farmers were invited to try a new land-use behavior in hopes of a reasonable return in local lumber and fuelwood markets. And the villagers who spent time recruiting farmers and supervising the tree planting activities, in addition to receiving their own seedlings, were given modest but reasonable cash recompense for the time they invested in these special activities.

Project Results

Because of the failures of many earlier tree-planting efforts, modest goals had been set in the project-planning stage. Though we anticipated that each participating family would plant about 500 trees, we had no firm basis on which to predict how many families would agree to participate. Most previous tree-planting projects had been mediated through the Haitian government. Therefore, projects had been carried out in the idiom of comandantes and/or pedagogues, had left unclear the question of who, if anyone, had rights to harvest the wood from the trees that were planted, and had even evoked fears that the government would eventually expropriate the land on which people had agreed to plant trees. Because of these and other reasons, Haitian farmers had shown little enthusiasm for tree planting. The term *rebwazman* (reforestation) was associated in rural vocabulary with coercive measures imposed by the State.

In light of this we were modest in our predictions. Our earliest projection was that we might be able to motivate 2,000 farmers to plant a total of one million trees over a four-year period. USAID, however, had already budgeted \$4 million to our section of the project, and a USAID economist warned that the internal rate of

return from only one million trees would not justify that investment. We thus made a rapid and somewhat arbitrary upward adjustment of project output goals to three million trees planted by 6,000 farmers over a four-year period.

From the outset, however, farmer response was startling. Villagers learned that this project would differ from earlier ones in that they would not have to deal directly with government agents, and that they could choose to participate or not. Moreover, the trees would belong to them and they would have full harvest and sale rights over the wood from the trees. Hesitation with respect to project tree planting was rapidly transformed into an energetic willingness to experiment. Farmers began signing up faster than we could furnish seedlings.

We had already surpassed the three million goal by the end of year two. By the end of year four some 20 million trees had been planted. The project rapidly became the star item in the portfolio of USAID/Haiti and was the object of a congressional visit.

Several mid-course corrections have been made during the nine years that the project has been functioning. To mesh peasant demand with seedling supply, the number of seedlings distributed per participant was lowered from 500 to 250. Nursery production, originally centralized near Port-au-Prince, is now almost totally regionalized, and in some communities it is localized in the peasant communities themselves. Greater care is given to ensuring higher survival rates once the seedlings have been planted. And alley cropping experiments have been done to introduce technically more sophisticated combinations of trees and food crops.

Despite these changes, however, the key project components -- the agroforestry technical base, the use of the market-oriented farm family as the core productive unit, and the non-governmental institutional delivery strategy -- have remained untouched as the anthropological assumptions and hypotheses on which they were based have withstood the test of time.

A growing corpus of systematic research on the project has given empirical support to the widespread impression of project success. In addition to popularized magazine accounts (e.g. Carty, 1983; Timberlake, 1983) which began lauding the AOP approach, a growing body of systematic research by social scientists has been carried out on the project. Of particular interest is the research of Balzano, who did case study research and eventually a Ph.D. dissertation in cultural anthropology on the project (1985; 1986a; 1986b; 1989). In addition several other studies have been carried out in communities that have

participated in the project (Ashley, 1986; Buffum, 1986; Buffum and King, 1985; Conway, 1986a; 1986b; 1987; Lauwerysen, 1985; McGowan, 1986). The unanimous conclusion is one of unusual project success.

In response USAID extended the project at the end of its fourth and final year, adding several million dollars. Despite political turmoil since 1986, the project has continued uninterrupted. The project has since been renamed ("National Agroforestry Project") and formally renewed for an additional five-year period. As of December 1990 it is conservatively estimated that more than 150,000 peasant families have each planted several hundred trees, for a total of more than 40 million seedlings -- most startling results for a project whose designers were unsure whether they could motivate 2,000 farm families to plant 3 million trees.

The Case for a Domestic Mode of Tree Production

The effectiveness of the AOP approach derives from the interaction of multiple causal factors. The remainder of this paper will focus on one of them: the selection by the project of a domestic mode of production, in which the individual farm family produces, manages, and harvests the trees. Some justification of this selection seems warranted in view of the frequent tendency of internationally financed tree-planting projects to opt rather for two "non-domestic" tree-planting modes: (a) plantation of government-owned trees on state land, either through wage, corvee, or "volunteer" labor; or (b) plantation of community-owned trees on village woodlots, often through volunteer community labor.

Objections Against Privatized Tree Planting

It is the latter mode, that of communal management by village groups, that has the most articulate advocates. Several arguments are often heard in favor of communal approaches to tree ownership.

1. In traditional village societies throughout the world it is more common to find communal, rather than privatized, control over local forests. Villagers have free, unimpeded access to their communally controlled forests for fuel and construction wood. Tree-planting projects should respect local customs of communal management of wood stands and not impose or even introduce privatized tree-ownership modes.

2. In line with this observation, it is objected that some cultures are more communal than others in problem-solving strategies. A culturally sensitive approach to project organization will utilize communal, rather than privatized, approaches to tree planting in such societies.

3. Whereas tribal groups practicing communal forest management modes have lived in harmony with tropical rainforests, the intrusion of privatized profit-oriented land-use modes almost inevitably leads to the destruction of rain forests and to the reduction of biodiversity.

4. Even individualistic cultures have an unrealized potential for communal approaches to property management. Rather than strengthening individualistic approaches to problem solving, development projects should encourage the emergence of new communal modes of action in such societies.

5. Wood grows too slowly for the ordinary poor rural family to plant it as an income-generating crop. The domestic mode of production is more appropriate to more rapid crops.

6. Few tropical cultivators have enough land to plant wood. The small size of their holdings forces them to allocate their scarce landholdings to the production of food, not wood. In many settings people are totally landless and dependent on renting or sharecropping. The use of privatized modes of tree planting on privately owned land will lead to the exclusion of such landless or land-poor sectors of the community from access to the tree economy.

The Logic of a Domesticated Mode of Production

Despite all of these arguments there were three clusters of reasons that militated strongly against the choice of a communal mode of tree production in AOP. Before discussing these, however, it will be useful to clarify terms. In the lexicon of at least some analysts of development projects, the terms "individualism" and "privatization" have a pejorative ring, a hint of Westernized, capitalistic values invading and replacing the communal and more solitary modes of problem solving presumably more characteristic of "traditional" cultures. I will avoid entering that debate here simply by pointing out that the approach utilized by AOP is more properly labeled a "domestic mode of production," a

productive strategy that utilizes the family as the basic unit of production. This is in contrast with, for example, a productive mode based on companies formed by private-sector investment, or one based on a governmentally engendered productive unit, such as a *corvee* group, called into existence by the authority of the state. Historically this domestic mode of agrarian production antedates all other modes. (This concept will be discussed below.) In AOP we did not promote "capitalist individualism," but rather the application to wood and fodder trees of a domestic mode of production with deep and ancient roots in the agrarian history of our species.

Several arguments justify the choice of this mode in Haiti. Because the arguments are largely applicable, however, not only to Haiti, but to many (and perhaps most) other settings in the rural tropics as well, they may have relevance for the design of tree planting projects elsewhere. I will present the arguments in ascending order of generalizable power, moving from the more concrete to the more abstract.

Argument from Pragmatic Results

Though retroactive in character, the "proof in the pudding" argument is probably the most cogent for funding agencies and project managers. Whatever the original logic of AOP in choosing this strategy for promoting tree planting, the unanticipated and unprecedented enthusiasm it has engendered among Haitian peasants would make it the preferred alternative for future tree-planting projects.

From the late 1940s on, Haitian peasants have been invited (or in some instances forced) to participate in a broad variety of tree-planting schemes, most of them involving state land, public ownership of the trees planted, and "food for work" quasi-wage labor arrangements for the ground preparation and tree planting tasks themselves. Villagers eager for access to cash in whatever form will gladly participate in such projects. The seedlings, however, rarely survive, because itinerant gangs of laborers have no further interest in the seedlings once the wages are disbursed. Laborers assume that the seedlings are public property, either of the state or of the amorphous community, and therefore they have little concern for their survival.

In radical contrast to the above conditions, the AOP approach will soon have motivated 200,000 farm families to plant several hundred wood trees each -- a figure that approaches 20% of the entire rural population of Haiti.

Furthermore many of the trees planted in the early 1980s have already been harvested. Case studies cited earlier, and recent visits to the tree-planting communities by this author, indicate that farmers have already generated income from the sale of poles and charcoal made from project trees. The author has personally visited communities where houses and other structures have been built using the wood from AOP trees planted in the early 1980s. In short a simple comparison of results attests to the superior efficacy of a strategy using a domestic, rather than a communal or statist, strategy of tree planting.

Argument from Haitian Ethnography

But because of its ad hoc and ex post facto character, the argument from results is less than fully satisfactory. In the project-design stage, before comparative results were available, I relied instead on ethnographic logic for advocating a domestic mode of tree production in rural Haiti. The briefest of ethnographic fieldwork quickly reveals Haiti to be neither a tribal society with communal control of land nor a peasant society with ancient communal traditions. It is instead a Westernized, postcolonial society inhabited by the descendants of involuntary migrants uprooted and transplanted from Africa. Both the Westernized economy and the Westernized land tenure system have been market oriented from the outset; not only crops, but also land itself has been and continues to be freely bought and sold.

There exist few if any community traditions in a strict sense of the term. That is, corporate identity and traditional rights derive from membership in dispersed kin groups rather than from membership in a geographically defined local community. There is no communal land in Haiti. Land without a local owner is either state land or undivided inheritance land that belongs to kin groups (wherever the members happen to have been born). The two major manifestations of communal solidarity alluded to in the ethnographic literature are (a) the rapidly vanishing *konbit*, a large community work party, and (b) the smaller *skwad*, a voluntary association of five or six cultivators who assist each other in agricultural tasks. Both of these groups, however, restrict their communal activities to the pooling of labor, never of land or of produce. Economic undertakings of a collective nature -- i.e. where the product of labor is collectively rather than domestically owned -- have either been mandated by the state or triggered off by externally funded development projects.

There was therefore no ethnographic justification whatsoever for recommending anything except a domestic mode of tree production in Haiti. My assumption when I made these arguments in the late 1970s was that the justification for a purely domestic mode of tree production derived from the historical and ethnographic idiosyncracies of Haitian society, with its colonial past and its market-oriented postcolonial present. I was wrong. I had assumed that communal modes of wood production might be more appropriate in other societies with deeper communal traditions.

Argument from Evolutionary Theory

I have since come to question the final sentence of that assumption. Having directed the AOP for the first year and a half of its operations, I have since become involved in the analysis of tree-planting projects in the Dominican Republic, Costa Rica, the Western Highlands of Guatemala, the Peruvian Andes, the eastern Peruvian rainforests, Burundi, and Madagascar. I assumed that beyond the borders of the postcolonial Caribbean I would encounter older cultures utilizing communal modes of production. I have found none so far. Having now explored the tree-planting issue in a broad variety of cultural settings and having interviewed an ethnographically broader sample of cultivators about it, I now question whether communal tree planting is the most appropriate strategy in any social setting.

Around the globe I have found villagers producing food for themselves and for sale. Whatever communal labor sharing or religious traditions exist, it is the individual household that plants, manages, and disposes of its own crops. Though villagers have frequently been taught either by forestry agencies or development practitioners that trees should be collectively planted and owned, and though they are willing to comply with these external mandates, many have expressed preferences for privately owned trees when I have discussed that option with them. More often than not those who have utilized communal tree-planting modes have done so not because they spontaneously desire it but because they have been so instructed.

Our knowledge of the major phases of cultural evolution should in fact have made us predict a preference for a domestic mode of tree planting around the world. Even in pre-agrarian foraging economies, norms of group sharing notwithstanding, ownership and control of hunted animals and gathered vegetation is lodged in the individual male hunter or female gatherer.

Though cultural rules provide guidelines, it is the domestic unit, not the band or its leader, that decides who gets what portion of the take.

A major evolutionary watershed is crossed with the gradual shift to domestication. It will be useful here to introduce an anthropologically deeper understanding of the concept "domestication." The term is conventionally used to refer to a purely technological shift -- from hunting and gathering to food growing and livestock raising. (In context of the current discussion, it would refer to a shift from an extractive mode to a productive mode of wood procurement.) But we should also recall that coincident with technological domestication in human history came a synchronous shift to the "domestication" of property relations as well. If we can reconstruct on the basis of contemporary ethnography, it is rare to see "village corn patches" or any collectively grown food except under conditions of state prodding or external developmental influences, and even then they are minor appendages to economies based first and foremost on familial modes of production. This generalization holds not only for peasant societies, but for tribal societies as well. All ethnographic evidence, and all available historical evidence, points to an ancient agrarian productive mode in which discrete household groups planted their own crops and tended their own livestock.

With the emergence of more complex political structures, ruling groups began establishing tributary liens on the produce of households. And with the emergence of coercive states, group forms of production were imposed from above. But looked at diachronically, in cultural evolutionary perspective, the domestic mode of production antedates other modes of agrarian production. And it is unquestionably still the dominant productive mode today in the tropical world.

These evolutionary insights have important practical implications for tree-planting projects. A common-sense reaction to global deforestation views it in panic as a product of greed and irrationality. But in evolutionary perspective the increasing scarcity of natural wood stands on planet Earth emerges as a historical replay of a similar crisis that may once have affected our basic food supply some 15,000 years ago. Our kill rate of animals and our extraction of natural vegetation back then surpassed the carrying capacity of our environment. We were running out of food. We can suspect that there were prophetic, conservationist voices pleading for a more provident use of nature's resources. The solution that our ancestors adopted, however, was not to reduce their level of extraction but rather to domesticate, as renewable commodities, the animals and plants that were formerly

hunted and gathered. Once the food domestication threshold has been passed, the food conservation theme wanes in importance.

The contemporary tree crisis thus emerges as a replay of a crisis that once occurred in the domain of food. But if the crisis has been replicated, why not also the ancient cultural evolutionary solution -- domestication? In dealing with the growing planetary wood shortage, anthropological wisdom would dictate that we focus our energies not only on conserving the few remaining wood stands provided by nature but more importantly on domesticating wood itself as one more crop in the agrarian inventory of human cultivators. This shift to an emphasis on domestication rather than protection was the underlying paradigm shift that was the core distinguishing feature of AOP.

But there is a stubborn anthropological detail program planners often ignore. Recall that domestication is not purely technological; it has a domestic proprietary dimension as well. The desired shift to a domesticated mode of wood procurement will be hindered if project organizers blindly impose trees collective proprietary arrangements that violate the domestic ownership principles that have been applied to cropped vegetation throughout our agrarian history.

Seen in this diachronic perspective, therefore, the lackluster results of most "village woodlot schemes" around the world begin to make sense. In its anthropologically questionable attempt to combine an agrarian technology of tree planting with pre-agrarian collective-property arrangements, the "community forest plantation" resembles an evolutionary mule, a clumsy and non-viable hybrid. In this sense the operational failures of many social forestry projects resemble those of the rapidly vanishing collectivized food-production schemes of the socialist world. Whatever one's abstract view of human nature, it has been an empirical rule of agrarian conduct that humans are willing to invest labor in ground preparation and planting tasks only when the concomitant property arrangements can assure them and their household members that they will own the product of this agrarian labor. Forestry departments and project planners often try to exclude wood trees from this agrarian principle. If there is a valid anthropological reason for making this exception, I have yet to hear it.

Countering Objections

In short, though the Agroforestry Outreach Project first based its program measures on arguments derived

from the ethnography of Haiti, the selection of a domestic mode of production for tree planting in fact appears to enjoy much broader and deeper evolutionary support as well. To conclude I now wish to address one by one the objections raised above against "privatized," and in favor of "collectivized," tree planting modes.

1. It is true that traditional village societies often maintain collective control over their adjacent forests. But to apply this communal management principle to village plantations as well is not valid. Communally managed traditional forests are natural forests. A forest plantation is domesticated vegetation. As discussed above, domesticated wood stands are best undertaken in the same domestic proprietary arrangements that govern other crops. When hillside tracts, not individually owned, are targeted for tree plantations, I argue that the best procedure is to institute usufruct arrangements by which specific stands of trees will be managed and owned by individual domestic units within the village, though the land itself remains property of the community.

2. Opponents of privatized tree-planting modes claim such a practice is inappropriate for cultures that emphasize collective problem solving-strategies. I argue, however, that even in societies with strong communal traditions, agricultural production remains under the control of individual domestic groups. In the Peruvian Andes, for example, where the community not only owns land but determines which blocs of land will be planted in a given year, the production itself is done by domestic groups. Though the community owns the land, it does not produce its food on collectivized potato or corn plots. The community allocates cropping land on a usufruct basis to households, without thereby forfeiting its control over the land. The community could therefore allocate land for domestic tree stands, should it choose to do so.

3. The objection that privatization has led to the destruction of rain forests and to the reduction of biodiversity by outside actors may be true, but it is irrelevant as an argument for communal tree planting. What I propose is not the imposition of some alien tenure mode, but rather the extension of traditional tenure principles to the wood tree. Domesticated corn and beans belong to households; so should domesticated wood.

4. Another objection concerns the need for development projects to recognize the potential for communal approaches to property management and to

avoid catering to individualistic impulses. The objection assumes that we should convert humans away from their ancient individualistic bad habits toward communitarian good habits. More in keeping with anthropological tradition, the argument presented here assumes that the ancient familial mode of production is a perfectly good habit, both ethically and pragmatically. It should be promoted, not stamped out.

5. The common objection that wood grows too slowly for the ordinary poor rural family to plant it as an income generating crop has been disproved by the experiences of AOP. By using intercropping strategies combining wood trees with their traditional food and cash crops, even impoverished Haitian farmers are willing and able to wait four or five years for a fast growing wood harvest.

6. The objection that farmers with small holdings will either be excluded from the wood economy or will improvidently substitute wood for food is not valid. AOP tried to address the equity issue by offering several hundred free seedlings to all interested parties, rich or poor, thereby precluding any maneuvers by the wealthy to channel all of the seedlings onto their plots. Despite these efforts, research by Lauwersen (1985) and Balzano (1989) on AOP has shown that land poor farmers did participate proportionally less than those with more land.

Though steps can be taken to forestall gross inequities in the distribution of project benefits (as was done in AOP), no tree planting project can nullify the effects of pre-existing local resource inequities. One option is allocation of public land for tree planting by the land poor. But where this step is taken, the conclusions of this paper suggest that the recipients of such public land should not be forced to plant their trees under communal tenure modes. Rather, domestic ownership over specific stands of trees on public land should be allocated to participating poor families. Otherwise we would have a situation in which the wealthy have full ownership of trees on their land, while the poor are restricted to the insecure and unstable tenure associated with communal management. The rich will make money, while the poor will hold each others hands.

To conclude, this paper has analyzed the experiences of the Haiti Agroforestry Outreach Project as an argument in favor of the use of a domestic mode of wood tree production, in which fast growing trees are introduced simply as one more crop in the local farming system. I have found that many tree planting projects, in Haiti and elsewhere, are doomed to failure when anthropologically unsound tree tenure modes, be they

statist or communal, are imposed from above.

I have proposed that our ancestors' transition from extractive to domesticated food procurement some 15 millennia ago be taken as the prototype of the process that could and should now occur with respect to wood production. Projects can assist this shift to a domesticated mode of wood procurement. To achieve this in Haiti, the project described here adopted a domestic mode of tree tenure. I have argued that the viability of this approach in Haiti is only partially related to the idiosyncracies of Haitian ethnography. If the approach has enjoyed some success, it is due rather to its willingness to apply to wood the same tenure and usufruct principles which cultivators around the world and throughout history have applied to their other crops.

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