ORGANIZATIONAL LEARNING IN DEVELOPMENT ASSISTANCE: A COMPARATIVE ANALYSIS OF SIX TREE-PLANTING PROJECTS IN KENYA

A Research Proposal

by

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ABSTRACT

Most community-level development assistance projects fail to achieve their stated objectives. With frustrating regularity, new projects repeat the mistakes that defeated their predecessors. If development assistance organizations are to become effective, they must develop the capacity to learn from their experiences and the experiences of others. There is evidence that community-level forestry projects sponsored by several national and international organizations in Kenya have begun to develop this capacity. I propose to undertake a comparative analysis of six Kenyan efforts (Kenya Woodfuel Development Program, Kenya Renewable Energy Development Project, Rural Afforestation Extension Scheme, CARE Agroforestry Extension Project, the Greenbelt Movement, and the Kenya Energy Non-Governmental Organization Association), to determine what these organizations have learned about the design and implementation of sustainable projects and how they learned it.

THE PROBLEM: COMMUNITY LEVEL PROJECT ADMINISTRATION

In the 1970's, many development assistance organizations began to recognize that their centralized, large-scale industrial projects were not meeting the needs of most of the world's poor.[1] In response, many organizations have returned[2] their attention to projects at the community level, in a strategy known as "participatory" or "people-centered" development. Participatory development calls for small-scale, decentralized, integrated projects that rely on maximum community participation and control, emphasizing equity, empowerment, capacity, and sustainability.[3]

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[1] See James Grant, "The End of Trickle Down?" Foreign Policy (Fall 1973); Robert Chambers, "Rural Poverty Unperceived: Problems and Remedies," (Washington, D.C.: World Bank Staff Working Paper #400, July 1980); Judith Tendler, "Inside Foreign Aid: Rural Projects Through Urban Eyes," (Washington, D.C.: World Bank Staff Working Paper, 1982); Paul Streeten, et al., First Things First, World Bank (Oxford: Oxford University Press, 1981); Keith Griffin, "Increasing Poverty and Changing Ideas About Development Strategies," Development and Change (1977); Irma Adelman, "Growth, Income Distribution, and Equity-Oriented Development," in Gerald M. Meir's Leading Issues in Economic Development (3d ed.)(Oxford: Oxford University Press, 1979)(pp. 27-29).

[2] Community-level development was not a new concept. In 1956, the U.S. International Cooperation Administration defined community development as a process "in which the people of a community organize themselves for planning and action; define their common and individual needs and problems; make group and individual plans to meet their needs and solve their problems; execute these plans with a maximum of reliance upon community resources; and supplement these resources when necessary with services and materials from governmental and non-governmental agencies outside the community." Lane E. Holdcroft, "The Rise and Fall of Community Development in Developing Countries, 1950-1965: A Critical Analysis and an Annotated Bibliography." Michigan State Rural Development Paper No. 2, (East Lansing 1978).

[3] See Coralie Bryant and Louise White, Managing Rural Development: Peasant Participation in Rural Development (Boulder: Westview Press, 1981); Guy Gran, Development by People (New York: Praeger Publishers, 1983); David C. Korten and Rudi Klauss, ed., People-Centered Development (Hartford: Kumarian Press, 1984).

For all the merits of this approach, it has proven extremely difficult to implement. A host of institutional, economic, political, and social factors obstruct the success of community-level projects. Consequently, an alarming number of such projects have failed to meet their objectives. Organizations have found it difficult to identify the causes of their shortcomings, and even when causes are identified, many organizations have been unable to respond effectively, repeating the mistakes in another generation of doomed projects.

Participatory development "...involves more than changing investment decisions. It is a way of thinking about development in which people rather than economics and technology are the central focus. It calls for new methods of development planning and action, new institutional structures, . . . and a continuous learning process at both individual and institutional levels."[4] This institutional learning process is what I propose to study, for it is the vital, and too often missing, ingredient to successful development assistance.

I propose to study community level tree-planting projects in Kenya to analyze obstacles to successful community forestry and to learn about the process by which organizations identify and respond to such obstacles.

I have chosen to study community level forestry projects because deforestation[5] threatens the welfare of so many people, and because the problems of community-level development have proven to be especially persistent in forestry efforts. I selected Kenya because it faces a critical loss of biomass resources and because it is the site of several innovative

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[4] David Korten and Felipe B. Alfonso, Bureaucracy and the Poor, (Hartford: Kumarian Press, 1983) p. 221.

[5] Deforestation here refers to the destruction of vegetation cover, whether it occurs on classified "forests" or on bush or agricultural lands.

tree-planting projects that demonstrate progress towards successful community level assistance.

DEFORESTATION AND DEVELOPMENT

Nineteen-eighty-five was the "Year of the Tree," with good reason. Of the two billion people relying on fuelwood, 70 percent are using it faster than it can regenerate.[6] It is estimated that by the year 2000, the demand for wood in developing countries will exceed sustainable supply by 925 million cubic meters. Today, 125 million people, in 23 countries, cannot find enough wood to meet their basic daily needs. Forests are being cleared at a rate of over 11 million hectares, an area the size of Austria, every year. In Africa, 29 hectares are cleared for every hectare planted. Current reforestation efforts will have to increase one hundred-fold to keep pace with global demands for tree resources.[7] Without massive commitments of labor, capital, and political will, many regions will be completely denuded by the turn of the century.

This loss of biomass resources is a critical issue for half the world's population, for whom trees are a vital resource. Trees provide fuel for cooking, lighting, and heating; they supply a bounty of fruits, fodder, building and weaving materials, medicines, dyes, and resins; they act as reservoirs for water and nutrients; and their roots hold the soil and protect

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[6] Food and Agriculture Organization, Wood for Energy, (Rome: Forestry Tropics Report No. 1, FAO 1981).

[7] World Resources Institute, The World's Tropical Forests: A Call for Accelerated Action, (Washington, D.C: World Resources Institute, 1985) pp. 2-27.

it from erosion. When trees disappear, a delicate balance between mankind and nature is disrupted. The environment deteriorates and, with it, the welfare of millions of people.

Effects of Deforestation

The effects of deforestation on human welfare are devastating. The loss of trees causes soil erosion, watershed destruction, and rain-reducing climate changes. The land becomes less fertile. In time, families can no longer support themselves on their exhausted land and must clear more, increasingly marginal land. Expanding populations intensify the environmental stress as new generations must convert even more forests into farms.

Moreover, as trees become scarce, women are forced to use dung and crop residues for fuel, instead of for fertilizer. It has been estimated that 400 million tons of dung are used for cooking annually. This decreases food production by over 14 million tons, double the amount of food aid distributed annually to developing countries.[8]

Recent case studies indicate that the fuelwood scarcity also increases labor requirements which affect family income, education, and health.[9] Fuelwood collection is often a woman's task, and in Kenya, exclusively so. The more time a woman must spend looking for fuelwood, the less time she has to spend on other activities. Because rural women already work long hours, any additional labor requirement is onerous.[10] Priorities must be

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[8] Op. Cit., World Resources Institute, 1985, p. 7.

[9] Elizabeth Cecelski, The Rural Energy Crisis: Women's Work and Family Welfare: Perspectives and Approaches to Action (Geneva: International Labor Organization (August 1983)).

[10] Irene Tinker, The Real Rural Energy Crisis: Women's Time (Washington, D.C: The Equity Policy Center, 1984).

reordered. Often, especially throughout Africa where women also perform the farming, their schooling and income-generating activities are the first to go. Such sacrifices not only impair family economic viability, but also reduce a woman's chance to earn discretionary income over which she might have control. Children may also have to leave school, either because the family cannot pay for school fees, books, or shoes, or because the children are needed to help search for fuelwood. Clearly this loss of educational opportunities affects future development prospects.[11]

Deforestation can also compromise family health. When fuel is scarce, fewer hot meals can be prepared. Sometimes, attempts to conserve fuel mean that food is not cooked thoroughly. Parasites survive and cause disease. Disease can also spread when water cannot be heated for bathing. Moreover, as mothers are forced to work harder in the search for fuelwood,[12] their children may be born frail and the quality and quantity of their milk may be insufficient to provide adequate nourishment. In the direst circumstances, "a person can starve with a full granary if there is no fuel with which to cook."[13]

While there is considerable debate over the true magnitude of the deforestation problem, there is nonetheless widespread consensus that the

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[11] Marilyn Hoskins, "Appropriate Technology for Time, Labor and Resource Conservation: Women Can't Wait," Department of Sociology, Virginia Polytechnic Institute and State University, Blacksburg.

[12] Amulya Reddy has suggested that the best way to close the caloric gap for rural women is not to provide more food, but to reduce caloric expenditures by providing energy efficient ways of completing subsistence tasks. Ready supplies of forest products, in close proximity to the home, hold potential for testing this theory.

[13] Op. Cit., Hoskins, "Appropriate Technology for Time, Labor, and Resource Conservation," p. 28.

effects of deforestation are serious, and demand attention. There is little doubt that a destructive spiral is created as the environment can no longer support enough people and the people must ravage the environment to survive.

FORESTRY ASSISTANCE

Because deforestation undermines development, foreign assistance agencies, national governments, non-governmental organizations, and local grassroots collectives have begun experimenting with numerous strategies to address its effects. Early projects tended to be large, monoculture tree plantations designed to meet commercial demands. It soon became apparent, however, that new tree-planting projects were needed to address local needs for tree products such as fuelwood, fodder, fiber, and fruits, which are traditionally outside the market economy. Forestry needed to move beyond the protection of gazetted forest for the optimal production of board feet, to a concern for managing and producing biomass resources for general consumption on lands of diverse tenure.

In recent years, forestry assistance has focussed on two types of projects to address community needs: conserving fuelwood by increasing the efficiency of conversion technologies, especially cookstoves and charcoal kilns; and increasing the supply of tree resources through a multitude of tree-planting strategies.

While all forestry efforts will be important in coping with deforestation, community-level forestry offers many unique opportunities to bring rural people and their environment into a sustainable balance. Community-level forestry refers to any effort involving tree planting outside gazetted forests, on communal, public, or private land, for individual, community, or commercial use. Trees can be planted on marginal lands, such as

lands around churches, schools, homesteads, or along public roadsides, or they can be intercropped with agricultural produce, a system known as agroforesty. The goal is to foster environmental rehabilitation, energy self-sufficiency, and opportunities to generate income from the sale of surplus tree resources. And, by ensuring a reliable, renewable supply of fodder, fruits, fiber and building poles, along with the numerous other services trees provide, community-level forestry helps villagers meet their basic needs and reduce labor demands, thereby enhancing their quality of life, particularly for women and children.

Unfortunately, the dreams of the potential for community-level forestry have been tarnished by its disappointing history.[14] It has proven to be extremely difficult to design and implement community-level forestry projects that incorporate the appropriate incentives, are self-sustaining, economical, and culturally sensitive, encourage meaningful participation, and distribute benefits equitably.

Recent studies indicate that many community-level forestry efforts failed to achieve their goals for many of the same reasons other community-level projects fail -- insufficient understanding of local socio-economic conditions, and an inability to incorporate comprehensive

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[14] Indeed, support for community forestry projects has already begun to wane. Allocations for forestry by development assistance organizations are small, though not insignificant. Seven hundred and fifty million dollars was allocated for social forestry by the development banks between 1980 and 1985. After peak contributions in 1979 and 1980, forestry allocations are declining. The World Bank, Inter-American Development Bank, African Development Bank, and Asian Development Bank all contribute less than one percent of their budgets for forestry projects. UNDP allocates two percent of its budget. Yet a newly released report by the World Resources Institute calls for a 1.6 billion dollar commitment over the next five years for social forestry alone.

local participation in the design and implementation of the project. Administering sustainable community level projects requires special organizational structures, interagency communication and coordination, continuous evaluation, flexibility, creativity, and reliable long-term commitments of technical and financial support. Unfortunately, programs that embrace all these qualities are rare.

IDENTIFIED PROBLEMS WITH COMMUNITY-LEVEL FORESTRY

Forestry projects often create conflicts over the use of scarce resources such as land, labor, water, and time. The micropolitics of who is to benefit and who is to lose from the development project is central, yet routinely neglected.[15] Paula Williams has suggested that "(f)orestry development is not managing trees, or making a profit: rather it is managing a socially-valued resource to serve human needs."[16] Failure to recognize the importance of institutional, economic, political, and cultural factors has frustrated many community-level forestry projects.

1. Analysis of Needs

Many projects are doomed from the outset by the failure to complete an end-use analysis to determine who needs the trees, what they need trees for,

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[15] Marilyn Hoskins, "Benefits Foregon as a Major Issue for FLCD Success," Department of Sociology, Virginia Polytechnic, Blacksburg (July 1982).

[16] Paula Williams, "Women's Participation in Forestry Activities in Burkina Faso," (Hanover: Institute of Current World Affairs, Newsletter #17. January 1985), p. 1.

and what kinds of trees best suit those purposes. Part of the problem is that project foresters are most often products of Western forestry schools. While they are well versed in Western tree species, most have little knowledge of indigenous species and none of the social science training necessary to integrate forestry management with diverse community needs.[1/] Moreover, project designers have often consulted only with village elders, as village representatives, thinking they were fulfilling participatory development goals. It now appears, however, that village leaders often do not represent important groups within the community, including women, herders, and the landless, who have different needs. Indeed, even efforts to consult with each household may not be enough; the family head may not seek to maximize the quality of life for the whole household.[18] Development projects will have to overcome these obstacles if they are to identify and serve the needs of all the diverse groups within a community.

2. Land and Tree Tenure

Ignorance of land and tree tenure customs undermines many projects as well. There is growing evidence that people who do not own their land will be reluctant to participate in tree planting schemes. Moreover, in some regions, women are not allowed to plant or own trees because they would then be entitled to the land on which the trees grow, and they are forbidden to own

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[17] Louise Fortmann and Sally Fairfax, "American Forestry Professionalism in the Third World: Some Preliminary Observations and Effects," in Women Creating Wealth (Washington, D.C.: AWID Conference, April 25-27, 1985) pp. 105-108.

[18] D. Dwyer, "Women and Income in the Third World: Implications for Policy," (New York: The Population Council, 1983).

land.[19] In other areas, cultural taboos prevent women from participating in tree planting. For example, in the Kakamega District of Kenya, Noel Chavangi has learned that ". . . current tree-planting activities are dominated by men and the concept of male only tree ownership has been effectively sustained through well-manipulated cultural practices." Women have been taught that if they plant trees they will become barren or their husbands will die. Houses cannot be constructed with wood from a tree planted by a woman. This cultural conditioning is extremely effective in controlling women's access to tree resources.[20]

3. Exclusion of Women

In regions where women can participate, they are often excluded for other reasons. Most often, women are simply ignored by project designers who failed to recognize their vital role as agriculturalists and forest managers. As a result, projects fail to meet women's needs and lose the benefit of their

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[19] Peter Freeman, Forestry in Development Assistance Office of Science and Technology, USAID (Washington, D.C: 1979); Jeffrey Burley, "Obstacles to Tree-Planting in Arid and Semi-Arid Lands: Comparative Case Studies from India and Kenya," United Nations Univesity (Tokyo: 1982); John Raintree, "Agroforestry, Tropical Land Use and Tenure," ICRAF (Nairobi: May, 1985). Diane Rocheleau notes that with the privatization of land under male ownership throughout Africa, women have lost customary usufruct rights to communal resources. Their access to and control over productive resources has gradually eroded, rendering basic family maintenance even more burdensome. Op. Cit. Rocheleau, 1985.

[20] Noel Chavangi, "Cultural Aspects of Fuelwood Procurement in Kakamega District," Kenya Woodfuel Development Program Working Paper No. 4 (Beijer Insitute, Nairobi, October 1984).

expertise and participation.[21] They are denied access to training sessions, and extension services, and so, they lack the knowledge and the tools necessary for participation. And when projects include women, they often impose demands that the women do not have the financial resources, information, time, or energy to fulfill.[22]

Some projects have suffered from the misapprehension that rural women do not work. Irene Tinker contends ". . . there is a critical inelasticity of poor rural women's time."[23] "Women are constantly balancing their personal time and energy against the demands of market work, subsistence activities and household tasks. Given these pressures, rural women cannot easily alter their workday without risking survival."[24] And yet, because the majority of poor

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[21] See Marilyn Hoskins, "Social Forestry in West Africa: Myths and Realities," presented at the American Association for the Advancement of Science, Washington, D.C. 1982; _____, "Women in Forestry for Local Community Development: A Programming Guide," in Invisible Farmers: Women and the Crisis in Agriculture, ed. B.C. Lewis (Washington, D.C.: USAID Office of Women in Development, April, 1981); _____ "Community Forestry Depends on Women," Unasylva, Vol. 32, No. 30 (p. 27-32); Diane Rocheleau, "Women, Trees and Tenure: Implications for Agroforestry Research and Development," ICRAF (Nairobi 1985); Paula Williams, "Women and Forestry," IX World Forestry Conference (Mexico City: July 1985), summary.

For example, foresters have organized fast-growing eucalyptus plantations to satisfy male demands for building poles. But eucalyptus trees are insufficient for women who need fuelwood, fodder, medicines, and dyes, and eucalyptus trees are often incompatible with agricultural crops.

[22] Op. Cit. Tinker, 1984 and Williams, 1985; Kathleen Staudt, "Administrative Resources, Political Patrons and Redressing Sex Inequities: A Case from Western Kenya," The Journal of Developing Areas, #12 (July 19/8):399-414; Lori Ann Thrupp, "Women, Wood and Work: The Imperative for Equity in Overcoming a Deeper 'Energy Crisis,'" (Nairobi: Institute for Development Studies, April 1983). Op. Cit., Marilyn Hoskins, "Appropriate Technology for Time, Labor, and Resource Conservation."

[23] Op. Cit. Tinker, 1984, p.3.

[24] Irene Tinker, Women, Energy, and Development (Vienna: United Nations Center for Social Development and Human Affairs, 1982), p. 15.

rural women's time is consumed in subsistence activities that are ignored in national economic calculations, these women are erroneously perceived as having abundant leisure time and energy. Consequently, development planners often design their projects relying on women who have virtually no leisure and little energy to devote to any additional activity.[25] This mistake is often compounded by project designs or village customs that deny women access to the mature trees they have nurtured; in time, women stop caring for trees because they gain no benefit from the activity. When participation becomes a cost with no benefit, there is a fatal flaw in the project design.

4. Economic Factors

Economic factors are also integral to the success of community forestry. Because trees have historically been a free resource, it is difficult to convince struggling villagers to expend additional labor and capital on tree planting. It is also difficult to promote tree planting for future use when present needs are paramount. In regions such as East Africa, where men and women have traditionally maintained separate budgets and economic responsibilities, forestry projects can be stalled because one spouse may have little incentive to contribute to an activity that lessens only the other spouse's burdens. For example, if husbands buy charcoal for their wives' cooking, the wives may see no reason to use their capital or labor to invest in a tree planting scheme.[26] Conversely, if women are responsible for gathering fuelwood, husbands may be reluctant to use their capital to buy improved cookstoves to conserve fuelwood.

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[25] Op. Cit. Hoskins, 1981.

[26] Op. Cit. Tinker, 1982, p. 14.

5. Institutional Constraints

Institutional constraints undermine the effectiveness of many projects. Research from other types of development assistance projects reveal some institutional constraints that may affect community forestry as well.

Some organizations, dependent on outside institutions for financial support, are compelled to rush a project in order to show results. Project quality becomes secondary to quantity. If a forestry project's success is measured by how many trees are planted, the organization may not take an interest in whether the kinds of trees planted are useful, or whether they survive.

Organizations that must compete for funding are often unwilling to share information. Each organization then works in a vacuum, unable to benefit from other's experiences. Different assistance groups keep bumping into each other in the field, unaware of the others' activities, duplicating previous efforts, and previous mistakes.

All of these factors combine to make rigorous project evaluation rare. Some organizations are reluctant to expose their mistakes, others move on before they assess their performance, or complete only a cursory report, too soon after project completion to determine if the project is truly sustainable. Follow-up evaluations years after project completion are rare,[27] and evaluation itself is seen as an end, instead of a means to help the organization learn during the project life cycle. The result is that organizations often have difficulty identifying past mistakes and hence little prospect of responding effectively. And, even when project designers are

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[27] Sara Hoagland, "Lessons Learned from the Transfer of Renewable Energy Technologies," (Washington, D.C.: World Resources Institute, Special Research Report, 1984).

aware of the problems previous projects have encountered, the need to get the project approved and implemented in an institutionally acceptable time frame means that lessons are often sidestepped,[28] because there is no means to get the new information through the necessary bureaucratic channels to alter the design and implementation of the project.

The dominance of technicians on project staffs often inhibits the consideration of non-technical concerns. When project teams are composed of foresters, mechanical engineers and agronomists, social soundness analyses receive little attention, relegated to appendices, never influencing project design and implementation.[29] The unwillingness or inability to consider the social context in which the project is to be placed frustrates most attempts to involve diverse groups within the local community.[30] The strength of the relationship between meaningful participation and sustainable community development has become increasingly apparent, and new dimensions of participation are continually discovered.[31] The token participation of early projects is no longer sufficient for it has proven to be a ritual on

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[28] Op. Cit., Hoskins, 1982, p. 6.

[29] Robert Chambers. Rural Development: Putting the Last First, (London: Longman, 1983).

[30] Philip Boyle, "On the Analysis of Organizational Culture in Development Project Planning," Institute for Development Anthropology (New York, November 1984).

[31] For example, Uphoff, Cohen and Goldsmith contend that there needs to be a "distinction between dimensions and contexts of participation. Dimensions of participation concern the kind of participation taking place, the sets of individuals involved in the participatory process and the specific characteristics of that process. The context of participation focusses on the relationship between the rural development project's characteristics and the patterns of actual participation that emerge." Uphoff, Cohen and Goldsmith, "Getting Specific About Participation: Analysis for Project Design, Implementation, and Evaluation," in Feasibility and Application of Rural Development Participation, Cornell University (Ithaca 1979) p. 2.

which nothing permanent can be built.[32] Yet, despite what is now known about the centrality of participation to project success, organizations still find it extremely difficult to design and administer projects that incorporate pervasive participation.

These problems have frustrated generation after generation of community-level projects. It appears, however, that some forestry projects now underway in Kenya have broken the cycle of successive project failure. There is evidence that several organizations here are learning to design projects that are truly sustainable.

KENYA

Over the past century, the social relations of production in Kenya have undergone significant transformation. Ben Wisner reports that "the existence of diverse fuelscapes and their socio-environmental origins reflect the continued functioning of three processes at the heart of Kenyan society. These are proletarianization, marginalization, and commodification."[33] The combination of these processes as Kenya "modernizes" has been the creation of three imbalances: (1) the rate of population growth and development of appropriate technology; (2) the core (Nairobi) and the periphery (virtually the rest of Kenya); and (3) the formal and informal economic sectors.[34]

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[32] Alan Fowler, "Rural Development Participation: Rationale and Application," Prepared for CARE-Kenya Staff Workshop (Nairobi: February 1986) p. 2.

[33] Ben Wisner, "Social Factors Affecting Fuelwood Planning in Kenya: Basic Needs in Conflict," Preliminary Field Report, Beijer Fuelwood Project (Nairobi 1981) p. 3.

[34] Ibid., pp. 14-15.

This transformation has magnified the problems associated with access and control of biomass resources. As communal lands became privatized, access to tree resources was restricted, especially for women and the landless. Increasing numbers of males left the farms in search of wage employment and more children were sent to school in hopes of future economic benefits. This has often left the women with increased burdens of managing the farm and the household and securing family welfare. As population pressures have increased, landlessness has become more prevalent and many families have found themselves with no access to biomass resources.[35]

At four percent, Kenya has the highest population growth rate in the world. The average woman has 8 children; fifty percent of the population is now under 14 years of age. The current population of 19 million is predicted to stabilize at 120 million in the year 2030. Seventy-eight percent of all Kenyans are engaged in agriculture,[36] yet only 20 percent of Kenya's land is considered arable, and most of it is already densely populated.

Today, seventy percent of Kenya's energy needs are supplied by fuelwood. The FAO has listed Kenya as one of the 57 nations facing an acute fuelwood scarcity as ". . . indicated by a (its) inability to meet minimum requirements, even with the exploitation of remaining trees."[37] Philip O'Keefe has projected Kenya's fuelwood shortage at 15 million tons per year by 2000. That represents 50 percent of the total demand and implies a massive

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[35] Carolyn Barnes, "The Historical Context of the Fuelwood Situtation in Kisii District," in Wood Energy and Household Perspectives in Rural Kenya, Energy, Environment and Development in Africa No. 6 (Beijer Institute 1984).

[36] World Bank, World Development Report 1985 (Washington, D.C.: The World Bank (1985)), p. 214.

[37] Op. Cit. FAO 1983.

depletion of standing stocks of wood biomass.[38] A recent WRI report concluded that Kenya will need 83 million dollars in development assistance over the next five years to support necessary agroforestry, fuelwood, and watershed management projects.[39]

In recent years, Kenya has hosted community forestry projects sponsored by a variety of organizations including international donor agencies, private voluntary organizations, the national government, and widespread initiatives by non-governmental organizations. Today, 13 major national and international organizations and 63 local organizations concerned with tree planting and biomass resource conservation are active in Kenya. Hundreds of school, church and women's groups are sponsoring tree nurseries.[40] These projects represent a broad range of forestry strategies, in diverse institutional contexts.

Recently the Kenyan government decentralized many policy and budgetary responsibilities to the district level, in a massive reorganization known as the District Focus.[41] This shift has enabled many local non-governmental organizations to obtain funds to support innovative development projects. Because such projects are designed, administered, and controlled by local residents who are well familiar with local conditions, they appear to hold

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[38] United States Agency for International Development, Proceedings of Workshop on Energy, Forestry, and Environment, Volume 1, Workshop Summary (Washington, D.C.: Bureau of Africa, USAID, April 1982) p. 66.

[39] Op. Cit. World Resources Institute, 1985, p. 89.

[40] A Directory of Organizations Working on Tree Planting and Woodfuel Conservation in Kenya, KREDP (Prepared by Winston Mather of EDI for MOERD and USAID)(December 1985).

[41] Joseph Makokha The District Focus: Conceptual and Management Problems, African Press Research Bureau (Nairobi: 1985). Louise Buck, Personal Communication, Fort Collins, Colorado (September 2, 1985).

great promise. One genre of NGO's that is particularly interesting is the 11,000 women's groups who are engaged in thousands of self-help social welfare and income generating schemes.[42] Many of the projects that will be examined in this study rely heavily on the participation of such groups. This participation will likely prove important in the ability of devlopment assistance organizations to learn to overcome the obstacles they encounter.

METHODOLOGY

The objective of this study is to identify and analyze the obstacles to effective community level forestry in Kenya, and discover the process by which various organizations have responded to these obstacles and developed strategies to address them. By examining the design and implementation of community-level forestry projects, I hope to gain some understanding of what types of organizations and strategies are effective in creating sustainable tree-planting projects that truly contribute to the diverse needs of a community. The extent to which the selected organizations are able to respond to past mistakes and alter future project design and implementation is a valuable component in the determination of which organizations are best suited for undertaking which kinds of forestry projects. By analyzing the evolution of each project, and by comparing it to previous efforts, I hope to discover not only what was learned, but how it was learned and incorporated into project design and implementation strategies. These conclusions should lead to useful policy recommendations for international development assistance

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[42] Achola Pala, "Women Power in Kenya: Raising Funds and Awareness," CERES, March/April, 1978, p. 44.

organizations, national governments, and even local grassroots initiatives, and contribute to the theory of participatory development.

The research is divided into six phases: library research in the U.S. and Kenya; selection of Kenyan case studies; comparative analysis of project development; project site observations; student awareness surveys; and, finally, data analysis.

PHASE 1: LITERATURE REVIEW

The goal of the first component is to identify the known obstacles to both successful forestry and organizational learning. Because this study concerns issues of development theory, project administration, and natural resources management, an extensive literature review became necessary, incorporating works from all the social sciences and environmental sciences. I focussed my readings on the evolution of development assistance, project design and management, organizational behavior, and environmental degradation, with particular reference to the dynamics of all these factors in tree-planting projects in Kenya. The literature review will continue throughout the duration of the study, as I continue to discover more materials.

PHASE II: PROJECT SELECTION

I conducted a preliminary overview of all the organizations sponsoring forestry projects in Kenya. Through this preliminary survey, I identified six organizations that appeared to have made significant progress in promoting sustainable community-level tree planting. I selected as case studies those organizations that consciously assessed past efforts, and made attempts to design their strategies to reflect the knowledge gained from those experiences. The selected organizations represent a range of grassroots,

national and international forestry efforts in Kenya, each having developed a unique strategy. The six projects I will study are: the Beijer Institute's Kenyan Fuelwood Development Programme (KWDP); the U.S.A.I.D./Ministry or Energy and Regional Planning Kenya Renewable Energy Development Project (KREDP), contracted to Energy/Development International; the CARE Agroforestry Extension Project; the Greenbelt Movement, sponsored by the National Council of Women in Kenya; the Kenya Energy Non-Governmental Organizations Association (KENGO); and the Ministry of Environment and Natural Resources Department of Forestry's Rural Afforestation Extension Scheme (RAES).

The mandate of KWDP, initiated in 1984, is to make rural households energy self-sufficient by promoting the growth of fast-growing fuelwood trees. The project began with the collection of data on woodfuel availability, existing agroforestry practices and socio-cultural and ecological constraints. Based on these data, technical agroforestry interventions are developed and tested. Promising interventions are then integrated with existing extension services for implementation at the district level. So far, the project has concentrated on research, the establishment of Seed Production Units, and the creation of public awareness strategies.

The KREDP, initiated in 1981 under the Ministry of Energy and Regional Planning, is designed to promote afforestation and biomass energy conservation, and to introduce renewable energy technologies and agroforestry practices. The project's goal is to reduce Kenya's consumption of woodfuel and imported oil to alleviate the strains on its biomass resources and foreign exchange. Major emphasis is placed on research and demonstration, seed and seedling production and supply, training, extension and technical services. The project has established six agroforestry/energy centers in each of the major ecological zones of Kenya. I will study the Bukura and Kisii centers.

CARE is an international development agency now operating in 40 countries. CARE-Kenya's agroforestry project began in 1982 in Siaya District and has since expanded to South Nyanza. The program focusses on implementing extension services to rural schools and women's groups. Groups are supplied with carefully timed inputs, such as seeds, nursery tools and technical advice. The extension workers emphasize multi-purpose and fruit trees. CARE works closely with the Ministry of Environment and Natural Resources and has established hundreds of small nurseries. They have also published manuals to help groups start their own nurseries.

The Greenbelt Movement, initiated by Dr. Wangari Maathai in 1977, began as an urban beautification scheme. It soon expanded to promote urban and rural tree-planting for multiple purposes. The project's objectives are to employ the needy and handicapped, improve the status and image of women and their income-generating opportunities, curb rural-urban migration, and increase awarenes of the need to rehabilitate the environment through tree-planting. The Greenbelt Movement works closely with the Ministry of Environment and Natural Resources; it is funded by various international donors. The movement has established hundreds of greenbelts and over 60 tree nurseries throughout Kenya.

The Rural Afforestation Extension Scheme was established by the Department of Forestry in 1971 to complement the Department's Industrial Plantations Programme. The primary objectives of the RAES are to promote tree-planting for multiple end uses and to conserve soil and water. RAES provides technical assistance and some materials to schools, community groups and individuals. The scheme operates in 41 districts.

KENGO was established in 1982 as an association of non-governmental organizations concerned with the conservation of Kenya's biomass energy resources, and the development of new technologies. It supports the energy

activities of member groups through training, information dissemination, and technical assistance, and strives to promote awareness of the value of indigenous trees and the potential of improved cookstoves and kilns through workshops and educational materials.[43]

Each of these organizations sponsors projects in Western and Nyanza Provinces. As that area is experiencing the most severe deforestation, aggravated by high population growth rates and acute land scarcity, I have chosen to limit my site observation to that geographic area.

PHASE III: CASE STUDY ANALYSIS

Each project selected will be studied from its initial conceptualization through project design, implementation, and, where appropriate, evaluation. By analyzing project literature, such as proposals, interim reports evaluations, extension staff reports, research findings, training manuals, and workshop materials, I will follow the paper trail from organization headquarters to project site. Supplementing this analysis with interviews of project staffs, I will retrace and analyze each step in the project's creation and implementation to discover how the project was developed, the efforts made to address the problems that plagued previous projects, and the process by which new problems were confronted or ignored. The data resulting from this analysis will enable me to piece together the evolution of Kenyan tree-planting projects, and to understand how each organization built on the foundation laid by its predecessors, as well as to compare experiences between organizations. This analysis will help me to discover not only how the organization's strategies evolved, but the institutional process by which that evolution took place.

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[43] Op. Cit., KREDP 1985.

I will be particularly interested in the effect that organizational structures, project cycles, decision-making, information flows, and management styles appear to have on project success; the working relationships among project planners, field staffs, and project participants; the process by which the project was designed and evaluated; and, the manner in which the various organizations worked with each other and with the Government of Kenya. An analysis of the relationship between participation in project identification, design, implementation, and evaluation and project sustainability will be central. Who participated, at what phases, in what capacity, with what effect? And, how did the organizations promote this participation. The process and content of staff training will be analyzed in detail. How were extension staffs trained, by whom, at what phase of the project, emphasizing the development of what skills, and awarenesses? The contribution of Kenya's District Focus development strategy will also be of interest.

PHASE IV: PROJECT SITE OBSERVATION

The purpose of the site visits is to supplement the information obtained from project documents, and to gain an understanding of the dynamics of the working relationships among the project managers, their field staffs, government officials, and project participants. I will interview field management and extension staffs to tap their knowledge of the project, the problems they have encountered, and how they addressed those problems, and I will accompany them on their visits to participating schools, women's groups, and farms to compare the project design to what is actually happening at the project site.

PHASE V: SURVEY DATA

I will supplement these site observations with data collected from 63 Peace Corps teachers, who have been solicited to gather information on the

tree-planting projects in their area. Each teacher was supplied with three different surveys. The first is to be completed by the teacher. It elicits general information about the local environment and culture, requesting specific information about the tree planting projects in the area, i.e., who sponsors them, who participates, and the general perception of the project's usefulness; it also requests information on the school's environmental curriculum. The second survey is to be completed by the students. They have been asked to describe the state of their environment, any difficulties they have experienced in gaining access to the trees they need, whether they participate in any tree-planting activities, and lastly, how they would design a tree planting project for their community. Attached to the students' survey are three copies of a family survey. Each student was requested to interview three members of his or her family, representing a range of age and gender, asking essentially the same questions. While this methodology may not be strictly scientific, it may nonetheless yield useful data about local attitudes and knowledge, and about the tree-planting activities of non-project participants and the obstacles they encounter.[44]

PHASE VI: DATA ANALYSIS

When this research is complete, I will have four data sets. From my literature review, I will have information about the institutional, economic, political, and cultural obstacles to successful community-level forestry projects. From the investigation of each project, I will have information from project documents, interviews, and observations about the evolution of each organization's project and the process of organizational learning. From my site observations, I will have information about the local impact of the project and local attitudes and perceptions. Finally, from the surveys, I will have information about the local tree-planting activities, a better

understanding of local attitudes and perceptions, and, perhaps, suggestions for improved project design and implementation strategies.

By combining these data sets, I should be able to assess the evolution of project design and implementation strategies, the successes and setbacks of each project, and the process by which each organization identified and responded to past mistakes. By compiling the lessons learned from each project, many policy recommendations should emerge about how organizations can learn to design and implement effective community-level forestry.

CONCLUSION

Much has been learned about how to design and implement effective community level projects, in theory. In practice, however, organizations keep stumbling. Disillusionment grows as the same mistakes are repeated over and over. This failure to learn from past mistakes is not only frustrating, it has led many organization to once again abandon community level development efforts in favor of easier, large-scale, centralized projects. If development assistance organizations can begin to understand the obstacles to community level assistance and design strategies to help organizations respond effectively, perhaps this trend could be reversed. By examining the design and implementation of several community level tree-planting programs in Kenya to determine whether and how they have identified and responded to obstacles they encountered and learned from the experiences of their predecessors, I hope to gain a better understanding of organizational learning, and important information about the ingredients for sustainable community level development.

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