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**AID FORESTRY STRATEGY**

**Sector Council  
for  
Energy and Natural Resources  
U.S. Agency for International Development  
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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D C 20523

THE ADMINISTRATOR

April 9, 1984

MEMORANDUM FOR THE EXECUTIVE STAFF, AID/W AND OVERSEAS

SUBJECT: Agency Forestry Strategy

The attached Forestry Strategy paper is now an approved Agency document. It provides guidance for the development of Bureau and country assistance programs and reflects the many useful comments provided on an earlier draft by Missions and interested outside organizations.

The paper stresses that implementation of AID policy in forestry and forestry-related management requires recognition of the multifaceted nature of these concerns, including biological diversity. It stresses a special commitment to the agriculture, energy and private sectors to assure long-term economic productivity and sustainable development. The importance of Agency research leadership is also addressed in this strategy.

I am proud of the leadership that AID has taken in forestry and the additional initiatives that are being planned.

I would appreciate hearing from each of you on your progress in implementing this strategy.



M. Peter McPherson

Attachment:  
Agency Forestry Strategy

## AID FORESTRY STRATEGY

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## AID Forestry Strategy

### A. Introduction

Many developing countries can not meet local needs for forest products. They are faced with deforestation, declining agricultural productivity and degradation of the environment and the natural resource base. Likewise, measures must be taken to protect and conserve biological diversity because the abundant plant and wildlife genetic resources present in these forests are being drastically reduced or lost. What is required is to develop sustainable forest production through wise, multiple use of natural resources, including forest conversion, management, conservation and preservation.

The three goals of U.S. assistance in forestry sector development help to satisfy these needs. They are to:

- 1) assist other sectors achieve goals in food, water and energy production in ways that conserve forests and natural resources; and
- 2) enable countries, through the science and practice of forestry, to manage their forests, range and other wildland resources for long-term sustained production so they may enjoy a broadening array of goods and services without threat of depletion. Sound practices of forest

conservation, multiple use management and conversion are essential components of the goal of sustained yield.

- 3) give high priority to developing sound plant conservation and wildlife management programs in order to protect and maintain biological diversity. It is recognized that survival of many plant and animal species occurring in forests is endangered by the destruction of habitats. The resulting extinction of plant and animal species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike, especially in the tropical environments. Accordingly, AID should undertake research programs dealing with the identification and classification of tree and wildlife species, the ecology of these species, including their distribution, habitat and land-use classifications. This information will then serve as the basis for designating selected areas for gene and habitat preservation.

B. Meeting Short-Term Needs  
While Advancing Long-Term  
Forest Management and  
Conservation Objectives

Within this general assistance framework, AID's forestry program has three main objectives:

- 1) to help meet the short-term needs of rural and urban populations in the developing countries for forest products like fuel, food, fodder and building materials as well as for income and employment;
- 2) to strive concurrently to improve the agricultural base through advancement of agro-forestry, and programs of soil and water conservation and management;
- 3) to improve and enhance the natural resource base over the long run through widespread adoption of effective multiple use management and conservation practices.

To achieve these objectives, land tenure and forestry legislation will be treated as major issues in forestry policy dialogues with host governments. AID will seek to change policies and laws that constrain local forestry activity and the effective application of sound forest resource management practices. Traditional forestry institutions in forestry education, research and management will be strengthened, and private enterprise will be encouraged.

While individual AID projects and project components may appropriately deal with any aspect of government policy, forest management or conservation consistent with Agency objectives, the primary action thrusts of specific bilateral forestry projects will be directed toward (1) reinforcing local and national forest and natural resource management capabilities; (2) helping to achieve self-reliance in food production and improve agricultural productivity; (3) meeting energy and multipurpose product requirements; and (4) expanding self sustaining private sector initiatives for meeting these needs while providing opportunities for income, employment and economic growth.

In all these activities AID's forestry program will seek to coordinate with those of agriculture, rural development, energy and other environmental fields, because the highest level of efficiency in resource use is found in a strategy which embraces them all. So although agricultural, energy and forestry development goals are treated separately here, it is recognized that many Agency-supported forestry projects will provide multiple benefits that will cross sectoral lines and require close and simultaneous collaboration among the several fields for maximum benefits to be realized at local, regional and national levels.

C. Building and Strengthening Mutually Supportive Relationships Between Forestry and Agriculture

The protective and contributive role of forests, trees and agroforestry practices in agricultural production is well established. Forested upland watersheds assure water supplies for irrigation systems.

Shelterbelts, windbreaks, dune stabilization measures and widely-spaced plantings in semiarid environments protect agricultural land from erosion, decrease water losses and slow desert encroachment and thus increase food production. Agroforestry and on-farm tree crop management help to increase agricultural crop yields and provide cash and material benefits. Forests and trees within areas of productive agriculture often help to protect and sustain fragile and marginal lands. Herbs, grasses, shrubs and trees on grasslands, savanna, rangelands, as well as in woodlands and forest provide forage and fodder for livestock and pastoral development.

In spite of these and many other benefits of forests and forestry to agriculture, the overwhelming causes of deforestation in the developing world are shifting cultivation, and expansion of both permanent croplands and grazing lands. There is clear need to harmonize forestry development on the one hand and forest depletion on the other to promote improved agriculture.

The strategy therefore includes expansion of forest and range

science in support of agricultural food and livestock production; promotion of reciprocal response by agricultural development programs and institutions; conduct of integrated field action, research, education and extension programs; and development of land use policies and programs mutually beneficial to agriculture and forestry.

1. Supporting Food and Livestock Production

Joint Action: AID will foster increased cooperation between agriculture and forestry in the development of integrated programs and projects. Project development and review processes in agriculture will consider the inclusion of forestry-related components. Separate project efforts addressing the needs for shelterbelts, windbreaks, and other erosion control and watershed conservation measures utilizing woody vegetation will be considered.

Tree planting components of projects will emphasize multipurpose uses for agricultural benefits as well as for increasing energy supplies and other tree products. Some tree planting operations will be directly funded but other projects will strengthen the management and planning capabilities of LDC institutions. Increased recognition will be sought for the economic viability of trees as a crop and as a protective cover.

Emphasis on Agroforestry:

AID will support agroforestry as an integral part of farming systems development and research. Programs will strive to increase farm outputs of fuel, food, fiber, fodder and wood to satisfy the needs of small farm families, shifting cultivators, and rural and national economies. The Regional and Central Bureaus will increase support for agroforestry research activities through existing agricultural, forestry and other specialized institutions.

S&T Bureau-supported cropping systems research will give greater recognition to increasing farm production resulting from tree and woody vegetation interactions with soils and crops. Agroforestry training and extension in LDCs will be promoted to strengthen the links between research, development, and on-farm needs. AID-supported research will integrate biological, socio-cultural and economic aspects of agroforestry and farm forest management.

Attention to Watershed Management: Watershed management is crucial to sustained, reliable water delivery for agricultural production as well as for energy requirements in the context of river basin development. AID will coordinate with LDC governments and donor organizations to address watershed

management problems and funding requirements. Increased emphasis will be placed on training and technical assistance in this area.

Because watershed management expertise is scarce in the LDCs, AID will help LDCs build institutional capabilities in watershed management methods in: those offices and institutions directly responsible for land use in fragile areas and upstream from important existing and planned reservoirs (potable water, irrigation, hydro-power, etc.); coastal estuaries; and urban centers and important road and communications networks. The integration of watershed management subjects into the formal training of foresters, agriculturists and natural resource managers will be encouraged. Teacher training will be emphasized as a means of developing a self-perpetuating education program.

Integrated Education and Extension: AID will provide appropriate agriculture and forestry officers among its staff with education and training in the relation of forestry with agriculture. Such education will include short- and long-term training, as well as information prepared or gathered by the S&T Bureau and disseminated to the field.

Missions will provide the resources for training of key LDC agriculturists and foresters in agroforestry and other fields where forest and agricultural sciences converge. Missions and Central Bureaus will encourage agricultural curriculum revisions in the LDCs to include forestry as applied to agriculture. Projects that include forestry extension for farmers will integrate these activities into existing agricultural extension networks by providing extension agent training when this is more appropriate than creating or supporting a separate forestry extension service.

Projects dealing with farming systems that include trees and elements of forest science will use appropriate U.S. and LDC intermediary groups (such as private voluntary organizations, U.S. Peace Corps, cooperatives, farmers' associations, and local trade and other private and community organizations) to bring production and management techniques to rural producers.

## 2. Agriculture/Forest Policy Interrelationships

AID will seek, at all levels of Agency involvement, to ensure that country agricultural policies and programs provide opportunities for timely inputs from forestry and renewable resource institutions.

AID will explore the potential of agricultural programs for assisting LDCs to develop their forest and renewable natural resources management institutions and to stabilize and conserve their forests and other elements of the natural resource base.

AID will encourage LDCs to approach forest land conversion to agriculture in ways that ensure sustainable production systems, full consideration of forest-based economic development opportunities and options, and the most appropriate forest land-use choices in relation to soil characteristics and land capability. AID will seek agroforestry and conventional agricultural cropping solutions to destructive forms of slash-and-burn agriculture. Efficient utilization of timber will be promoted as forest land is converted to agriculture. And policy dialogue will be employed to discourage uncontrolled, economically unjustified and ecologically damaging deforestation and inappropriate land conversion.

### D. Meeting Energy Needs Through Forestry

Wood serves as the main source of energy in many LDCs. Where the use of fuelwood and charcoal for home heating and cooking is traditional and substantial, depletion of wood supplies has dramatized the severe social and

economic effects of scarcity. The present lack of low-cost alternatives will limit the widespread use of substitutes in the near and medium term. To slow the current decline of this resource, and incomes associated with it, substantial and rapid improvement is required in the efficiency with which forest fuels are produced, managed, converted, merchandised and consumed.

Forests also play a non-fuel role in relation to energy production. Stabilizing soils, water yield and flow control, and community development are critical in watersheds feeding hydroelectric installations. Forest degradation in such areas has underscored the devastating effects on the reliability, costs and effective life of large hydroelectric systems. AID will seek dialogue with countries and donors concerning the need for adequate watershed management measures, and will favor support for multiple benefit forestry projects that affect hydroelectric and other reservoirs.

AID will advance forestry and energy integration, fuelwood production and forestry and fuelwood research while encouraging greater private sector involvement in meeting fuelwood needs.

1. Expanded Forestry and Energy Integration

The first element of a program to increase wood supplies for firewood, charcoal, and more highly processed forms of fuel is

to increase the participation of forestry-oriented institutions in energy planning, program development and research. Forestry institutions will be encouraged and supported in becoming involved in such planning, development and research at the national, regional and local levels in LDCs. In this process, production will be linked with fuel conversion activities.

AID's forestry program will encourage countries to design organizational means at the national level to integrate forestry and energy concerns. Where appropriate, it will contribute to the technical analysis and planning capabilities of LDC forest services, universities, private trade associations, ministries and other planning groups. Projects will include training in, and establishment of mechanisms for, market analysis. This may entail the establishment of offices of analysis and planning that can provide projections of trends in production and consumption of fuelwood and derived products, and relate predictions to wider resource availabilities, scarcities, and development needs and opportunities. Information dissemination from such offices will help ensure that appropriate amounts of public sector resources continue to be invested in fuelwood production, and that appropriate incentives are

provided the private sector to carry out tree planting in targeted areas and to use these resources for energy purposes.

## 2. Forestry/Fuelwood Research

AID fuelwood research will focus on fast growing, multipurpose trees, and on production systems for multiple benefits. Whenever possible, AID will also encourage research on natural forest management and fast-growing tree plantations to help meet urban and rural energy and other basic needs. AID will also conduct the institutional, socio-cultural and economic research necessary for understanding policy change implications and ensuring successful field applications. Fuelwood research will focus on meeting agricultural as well as energy needs, with stress on multiple benefit approaches.

The capacity of LDC research institutions for biological research and collateral socio-economic research will be strengthened by including research components in projects where feasible. AID will assist LDCs in development of their abilities to collect, evaluate, and disseminate information. Networking of research institutions that have common programs will be supported and emphasized.

## 3. Expanded Fuelwood Production

AID will directly finance tree-planting operations,

especially within areas of extreme energy deficit, while strengthening LDC institutional capacity and supporting natural forest management, agroforestry and on-farm multipurpose plantings which simultaneously provide agricultural and other longer-term conservation benefits and environmental enhancement. Local participation and self-sustaining approaches will be stressed.

Conversion of forest land to agricultural use without adequate provision for trees in the subsequent land use and farming systems is frequently the cause of fuelwood scarcity in many densely populated agricultural areas. For this reason, AID will support agroforestry, on-farm tree crop management, woodlot development, linear plantings and shelterbelts, plantations, and managed natural forest preserves as a part of the solution to the energy problem.

Where community woodlot and industrial-scale reforestation projects have succeeded or promise to be successful, they will be financed in conjunction with institution-building activities. These direct investments in reforestation will provide a training ground for local LDC personnel, and create demand for services being built into national or regional institutions. Where these types of activities have not

proven successful, AID will support socio-economic research to identify constraints and propose alternatives. Including research with development in such projects is essential to generation of information on ways to continue increasing productivity.

Demonstration plantings will be supported to motivate and guide self-perpetuating reforestation efforts. Support for large-scale urban and commercial-scale operations will be based on economic, financial, social, and environmental feasibility studies and on the results of demonstration projects. Technical approaches beyond traditional tree plantations such as use of shrubs, short-rotation coppicing, and improved natural forest, woodland, and scrubland management will be tested.

Allocations from PL-480 Title I and Title III proceeds from sale of food will be sought for reforestation projects for fuelwood production where consistent with AID/host government policies. PL-480 Title II Food For Work will be used to support large-scale reforestation for multipurpose tree and fuelwood production. Appropriate levels of technical and management assistance will be provided to assure plantation survival and increased productivity.

#### E. Promotion of Private Sector Involvement

AID will seek to increase private sector involvement wherever forestry, agricultural and energy-related initiatives are undertaken, and will simultaneously foster environmentally sound forest resources management and conservation programs by the private sector.

AID will stress forest-based economic development and income and employment opportunities that are consistent with other, broader goals and objectives of the Agency. In this endeavor, AID will focus primary attention on expanding participation and productivity of indigenous private enterprise in both the traditional and commercial sectors. To guide this process, AID will provide resources and expertise to LDC governments, industries, international forest products trade associations, and enterprises of all sizes. The Agency will also encourage U.S. private sector participation and involvement where AID's client countries stand to benefit.

AID will support the creation and strengthening of institutional structures to study forest resources and forest products markets and to work with the private sector to increase output and productivity and expand economic development without resource depletion or deterioration.

AID will educate and train personnel of such organizations to conduct capable research on an independent and continuing basis

and will support market development and promotional activities that offer increasing use of local wood resources within sustainable production systems with attendant income, employment and social benefits.

Forestry components of private enterprise projects will be used to test ideas for further application in the Agency's forestry, agriculture, energy and rural development projects so as to expand opportunities for private initiative in those areas.

AID will work with LDC governments to identify, measure, and remove or modify institutional, infrastructural and policy constraints on private initiative for meeting forest and tree related needs and for taking advantage of economic development opportunities.

AID will also work with LDC governments to develop policies and procedures in international trade which improve the economic performance and contributions of local enterprises and the private sector.

#### F. Implementing Agency Forestry Strategy

Forestry development is a long-term and important investment. A steady increase in expenditures for forestry projects and forestry and agroforestry components within agriculture, energy, private enterprise and rural development projects is needed on a sustained basis over the next decade.

A balanced Agency program will include: direct support for

project development; technical assistance and research related to ongoing field projects; pilot initiatives to involve the private sector in AID's forestry program; training coordination, curricula development; and forestry technical and management support to the myriad of reforestation activities being undertaken with PL-480 resources.

To carry out this strategy, a significant increase in direct hire staff is needed. Contract, IPA, RSSA, PASA, Joint Career Corps, and MOU university-supported personnel will continue to be used to provide essential technical assistance. Support for global and regional research and development in forestry through the Central and Regional Bureaus will require a significant increase in the present level of funding.

Long- and short-term training will be required for direct-hire personnel serving as agricultural, energy or forestry officers. Training will cover subjects related to basic forest science, forestry and energy, forestry and agriculture, the potential economic contributions of the forestry sector to national and local rural development, and to the intersectoral relationships involved.