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July 1994

National Conservation Strategy Secretariat
Ministry of Natural Resources Development
and Environmental Protection
Addis Ababa

**NATIONAL CONSERVATION STRATEGY
VOLUME IV
ACTION PLAN
FOR
THE NATIONAL POLICY ON
NATURAL RESOURCES
AND THE ENVIRONMENT**

TRANSITIONAL GOVERNMENT OF ETHIOPIA

5119

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National Conservation Strategy Secretariat
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AND THE ENVIRONMENT
NATURAL RESOURCES
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FOR
ACTION PLAN

VOLUME IV
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NATIONAL CONSERVATION STRATEGY

VOLUME IV

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ACRONYMS

AAWSA	Addis Ababa Water and Sewerage Authority
CITES	Convention on International Trade in Endangered Species
CPPS	Community Participation Promotion Service
EEA	Ethiopian Energy Authority
EFAP	Ethiopian Forestry Action Programme
EIA	Environmental Impact Assessment
EIGS	Ethiopian Institute for Geological Surveys
ENTO	Ethiopian National Tourist organisation
EVDSA	Ethiopian Valleys Development Studies Authority
EWCO	Ethiopian Wildlife Conservation Organisation
GIS	Geographic Information System
HE	Hydro Electricity
IMEMIS	Integrated Macro Economic Management Information System
LUP	Land Use Planning
MCSA	Ministry of Culture and Sports Affairs
M&E	Monitoring and Evaluation
MEEC	Ministry of External Economic Cooperation
MIS	Management Information System
MMEn	Ministry of Mines and Energy
MNRDEP	Ministry of Natural Resources Development and Environmental Protection
MOA	Ministry of Agriculture
MOE	Ministry of Education
MOH	Ministry of Health
MOI	Ministry of Industry
MOInf	Ministry of Information
MPWUD	Ministry of Public Works and Urban Development
MRCCD	Mineral Resources Exploration and Control Department
MSF&TCD	Ministry of State Farms and Tea and Coffee Development
NCS	National Conservation Strategy
NEPA	National Environmental Protection Authority
NEPC	National Environmental Protection Council
NPCC	National Programme Coordinating Committee
NPCS	National Programme Coordinating Secretariat
NWSA	National Water and Sewerage Authority
OGEDO	Oil and Gas Exploration and Development Organisation
PGRCE	Plant Genetic Resources Centre of Ethiopia
R&D	Research and Development
REPC	Regional Environmental Protection Council
RPCC	Regional Programme Coordinating Committee

RPCS	Regional Programme Coordinating Secretariat
ROEP	Regional Bureau of Environmental Protection
WID	Women in Development
WPCC	Wereda Programme Coordinating Committee
WPCS	Wereda Programme Coordinating Secretariat
WRDA	Water Resources Development Authority
ZPCC	Zonal Programme Coordinating Council
ZPCS	Zonal Programme Coordinating Secretariat

CHAPTER I

INTRODUCTION

This is the fourth volume of the Ethiopian National Policy on Natural Resources and the Environment.

Volume I establishes the setting by evaluating the state of the natural resources, the environment and development in Ethiopia and examining the interconnected causes and effects of the existing situation.

Volume II presents a policy and strategy framework aimed at ensuring a sustainable use and management of natural resources, at rehabilitating those whose bases have suffered degradation and at maintaining life support systems functioning well. For this, the use and management of natural resources and the environment was approached through 11 cross sectoral and 11 sectoral issues, with prioritised strategies being defined for each issue.

Volume III deals with institutional questions which require to be answered to implement the strategies defined in Volume II.

This volume (Volume IV) presents a plan of prioritised actions within the framework of 11 cross sectoral and 11 sectoral programmes (shown in figure 1.1). Each Programme is divided into a number of **components** which are broad divisions for programming purposes. For each component **prioritized actions** have been formulated which translate the broad strategies outlined in Volume II into specific activities.

These activities have been prioritized into three, not necessarily exclusive, categories. **Immediate priorities** are those actions which are deemed essential for immediate implementation and which can be accomplished within a period of two years. **Medium term priorities** are those actions which can be started immediately or may be dependant on the completion of specific immediate actions, and which can be completed within a period of five years. **Long term priorities** are actions which require the completion of immediate and/or medium term actions and which will take a period of much more than five years to complete.

Volume V gives a listing of projects, some funded and being implemented, and others only proposed, with estimated costs. The projects have not been fully evaluated and prioritised in the context of the strategies defined in Volume II.

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CHAPTER II

ACTION PLAN

2.1 CROSS SECTORAL PROGRAMMES

- I. POPULATION GROWTH, NATURAL RESOURCES AND THE ENVIRONMENT
 - Planning Surveys and Studies
 - Capacity Building and Institutional Strengthening

- II. PEOPLES' PARTICIPATION IN NATURAL RESOURCE DEVELOPMENT
 - Participatory Planning and Programme Implementation
 - Capacity Building and Institutional Strengthening

- III. LAND AND NATURAL RESOURCE TENURE
 - Studies and Policy Development
 - Capacity Building and Institutional Strengthening

- IV. LAND RESOURCE USE POLICY AND STRATEGIC LANDUSE PLANNING
 - Resources Surveys and Suitability Assessment
 - Capacity Building and Institutional Strengthening

- V. INTEGRATION OF SOCIAL, CULTURAL AND GENDER FACTORS
 - Social, Cultural and Gender Factors in Resource Use
 - Empowerment and Local Level Capacity Building and Institutional Support

- VI. ENVIRONMENTAL ECONOMICS, MACRO ECONOMIC POLICY PLANNING
 - Natural Resource and Environmental Economic Valuation
 - Correcting Market Failures & Avoiding Policy Failures
 - Capacity Building and Institutional Support

VII. ENVIRONMENTAL INFORMATION SYSTEMS

- Establishing Environmental Information Systems
- Capacity Building and Institutional Strengthening

VIII. ENVIRONMENTAL RESEARCH

- Strategic, Applied and Adaptive Research
- Capacity Building and Institutional Strengthening

IX. SCIENCE AND TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT

- Studies and Science and Technology Policy Development
- Capacity Building and Institutional Strengthening

X. ENVIRONMENTAL IMPACT ASSESSMENT

- Development of EIA Procedures and Guidelines
- Capacity Building and Institutional Strengthening

XI. ENVIRONMENTAL EDUCATION AND AWARENESS

- Formal Education
- Informal Education and Public Awareness

CROSS-SECTORAL PROGRAMME I
POPULATION GROWTH AND DISTRIBUTION AND THE SUSTAINABLE
MANAGEMENT OF RESOURCES AND THE ENVIRONMENT

Components:

- 1. Planning Surveys and Studies**
- 2. Capacity Building and Institutional Strengthening**

1. *Planning Surveys and Studies*

The Immediate Priorities are:

1. To develop Regional Population Action Plans for the implementation of the National Population Policy and the population strategies contained in the National Policy on Natural Resources and the Environment.
2. To undertake a national survey and assessment of the human support capacity and settlement expansion potential in the highlands and lowlands.

Medium Term Priorities:

1. To develop Wereda and Local level Population Action Plans for the implementation of the National Population Policy and Regional Population Action plans.
2. To undertake a study into the relationships between demographic, socio-economic and environmental factors as a basis for developing and refining national and regional policies on population and environment.
3. To develop regional action plans for off farm income generation for the poor and the landless, especially women.

2. *Capacity Building and Institutional Strengthening*

The Immediate Priority is:

1. To develop central and regional government laws and guidelines to ensure that the empowerment of women is complete and that population concerns are reflected in all programmes and projects.

2. To establish and provide institutional support for a Population Communication Centre in the Ministry of Information.
3. To review and revise curricula and text books to ensure that population issues are adequately covered and the appropriate values are cultivated among school children.

The Medium Term Priorities are:

1. To develop guidelines and provide training for government staff to enable them to incorporate population concerns into planning and development activities.

**CROSS-SECTORAL PROGRAMME II
PEOPLES' PARTICIPATION IN SUSTAINABLE DEVELOPMENT**

Components:

1. **Participatory Development Planning and Programme Implementation.**
2. **Capacity Building and Institutional Strengthening**

1. *Participatory Development Planning and Programme Implementation*

The Immediate Priorities are

1. To develop appropriate methodologies in participatory studies at the local level in all aspects of development, including but not confined to, agriculture, farm forestry, water supplies and primary health care, to enable development workers and planners to better understand the informal socio-economic groupings and power structures found at this level, in order to better provide a basis for facilitating peoples' participation in development.
2. To undertake participatory local level studies in pilot areas in the various regions to design specific development programmes that effectively involve and benefit all people, but particularly the most disadvantaged groups, particularly widows, children, the disabled and the landless.

The Medium Term Priorities are:

1. To expand on and extrapolate from the lessons learned in the pilot phase of participatory appraisal, planning and development in the various fields of development, to cover the whole country.

2. To recruit and train women extension workers in order to increase their relative proportion and absolute numbers.
3. To reform the national and regional government programming and budgeting system to allow for government funds to be held at the zonal, wereda and community level, to be used for designated and approved development works and activities without recourse to the central or regional level.
4. To permit such government funds held at the community level, to enable communities, initially on a pilot basis, to employ their own development workers and facilitators, or hire graduates, other specialists or consultants on a temporary basis for specialised technical advice.
5. To reform the national and regional government financial regulations to authorize all levels of government and community organizations, initially on pilot bases, to raise revenue and funds locally from the use of natural resources (eg. tourism, sale of forest products, etc) to fund local development works and activities.
6. To establish a system of monitoring and evaluation of the use, by communities, of government funds placed at that level as well as funds raised by the community itself.

2. Capacity Building and Institutional Strengthening

The Immediate Priorities are:

1. To provide training at the wereda and community levels in small project design and appraisal, in work programming and budgeting, in work supervision and in simple accounting.
2. To provide, to professionals and development workers at all levels of government, a programme of reorientation training which embraces techniques in participatory appraisal, planning and implementation, and includes the development of listening and communication skills.

The Medium Term Priorities are:

1. To develop, through a system of regular meetings and information gathering and provision at all levels, a two way channel for the monitoring and evaluation of the projects implemented at the national, regional and local levels.

2. To provide training programmes for development workers and facilitators recruited by communities.

CROSS-SECTORAL PROGRAMME III
RURAL LAND AND NATURAL RESOURCE TENURE AND ACCESS RIGHTS

Components:

1. **Studies and Policy Development.**
2. **Capacity Building and Institutional Strengthening.**

1. *Studies and Policy Development*

The Immediate Priorities are:

1. To establish national and regional task forces to undertake studies on rural land and natural resources issues as a basis for formulating a rural land tenure.
2. To undertake a national survey of broad categories of existing land users and their use rights (e.g. peasant agriculture, shifting cultivator group, territories of transhumant pastoral group, state agriculture, state forest, etc) and resource users and use rights (e.g. water, trees, grass, minerals).
3. To undertake a study into land holding fragmentation, whether and to what extent this constitutes a problem.
4. To study the control and management of communal, private and institutional land and the natural resources on or in it.
5. To undertake pilot schemes of land holdings consolidation and other possible local level solutions if required.
6. To undertake local studies of land tenure history and existing *de facto* land tenure practices in all parts of the country as a basis for policy reform.
7. To undertake a study into measures required for the reform of agricultural income and land tax.
8. To undertake study visits to other countries with similar socio-economic conditions to examine and assess different institutional structures, legal systems and other interventions for the cost effective administration of land tenure.

2. *Capacity Building and Institutional Strengthening*

The Medium Term Priorities are:

1. To establish the institutional structures necessary to administer the land tenure systems which are finally adopted.
2. To develop and implement a programme of training for members of community and wereda level organisations responsible for implementing systems of land tenure administration.

**CROSS-SECTORAL PROGRAMME IV
STRATEGIC LAND USE PLANNING**

Components:

1. **Resource Surveys, Suitability Assessment and Land Use Planning.**
2. **Capacity Building and Institutional Strengthening.**
3. **Resource Surveys, Suitability Assessment and Land Use Planning.**

1. *Resource Surveys, Suitability Assessment and Land Use Planning*

The Immediate Priorities are:

1. To undertake a national land use survey, focusing as a first priority on the highlands at a scale of 1:250,000, and as a second priority on the lowlands at a scale of 1:500,000.

The Medium Term Priorities are:

1. To undertake natural resources, land suitability and land availability studies for commercial agriculture.
2. To undertake natural resource, land suitability and land availability studies in the western and southwest lowlands for expanded rainfed agriculture.
3. To undertake natural resource surveys in the semi arid and arid northeastern eastern and southeastern lowlands.
4. To develop Strategic Regional Land Use Plans.
5. To synthesize the Regional Land Use Plans into a Strategic National land Use Plan.

2. *Capacity Building and Institutional Strengthening*

The Immediate Priorities are:

1. To provide training at Regional Natural Resource, Agriculture and Planning Bureaus in natural resource surveys and land suitability assessment for rainfed and irrigated agriculture, extensive livestock production and forestry.
2. To undertake training at Regional Natural Resource, Agriculture and Planning Bureaus in Strategic Regional Land Use Planning.
3. To undertake training at Regional Natural Resource, Agriculture and Planning Bureaus in the application of Geographic Information Systems to Regional Planning.
4. To provide training at the regional level to prepare community trainers in the use of regional strategic land use plans as a basis for local level participatory planning and development.
5. To provide institutional and logistical support to Regional Bureaus to undertake resource surveys and assessments, and Strategic land Use Planning.

The Medium Term Priority is:

1. To provide training at the community level in the use of strategic land use plans as a basis for participatory planning and development.

CROSS-SECTORAL PROGRAMME V INTEGRATION OF SOCIAL, CULTURAL AND GENDER FACTORS IN SUSTAINABLE MANAGEMENT OF RESOURCES AND THE ENVIRONMENT

Components:

1. **Integrating Social, Cultural and Gender Factors in Resource Use and Management.**
2. **Community Empowerment, Local Level Capacity Building and Institutional Strengthening.**

1. *Integrating Social, Cultural and Gender Factors in Resource Use and Management*

The Immediate Priorities are:

1. To develop effective methodologies to assess and monitor the social, cultural and gender impacts of development projects, programmes, policies, directives, rules and regulations.
2. To institutionally support and establish, "Women in Development" desks in all central and regional government agencies concerned with natural resources development and environmental management and to ensure that projects, programmes, policies, directives, rules and regulations are emanating from the agencies are scrutinized by the desks.

The Medium Term Priorities are:

1. To undertake an awareness training programme for development and extension staff, identifying and emphasising the role of women in agriculture and natural resource use and management and redirecting attention of extension activity to focus on them.
2. To undertake a study on women's traditional rights to natural resources and the cultural values placed on these rights and to identify the constraints to, and opportunities for equal access to education, training, jobs and status, as compared to men.
3. To undertake a study on the roles of women in pastoral systems of production and to identify the constraints to, and opportunities for equal access to education, training, jobs and status, as compared to men.
4. To provide technical and material support to women in private sector, and especially artisanal mining.
5. To undertake a study of women's rights and entrenched handicaps to education, training, jobs and status in urban settings as compared to men.
6. To incorporate into local level participatory rural and urban planning the development of alternative income generating activities for landless men and women.

2. *Empowerment, Local level Capacity Building and Institutional Strengthening*

The Immediate Priorities are:

1. To develop and support participatory and democratic community organisations, fully enfranchising women, disadvantaged social groups, disabled persons and, as appropriate, youth and children, whose power and authority derives from the community members, able to undertake the regulation, planning and management of projects, resources and the environment within the community's area of jurisdiction.
2. To undertake empowerment training for local communities to enable them to fully enfranchise their women, disadvantaged social groups, disabled persons and, as appropriate, youth and children, to effectively participate in the planning and implementation of all development activities, including in particular simple methods of accounting, project preparation and monitoring, work programming and budgeting and stock control.

The Medium Term Priorities are:

1. To incorporate into research programmes for improved land, crop and animal husbandry, the development of appropriate technologies, tools and utensils which reduce the work load of women and the disabled.
2. To promote community participation in the development of basic services and infrastructure, including water supplies, schools, primary health care, access and feeder roads, crop and fertilizer storage facilities.

See also community participation activities in all Sectoral Programmes

**CROSS-SECTORAL PROGRAMME VI
ENVIRONMENTAL ECONOMICS AND ECONOMIC PLANNING**

Components:

1. **Economic Valuation and Accounting.**
2. **Correcting Market Failures and Avoiding Policy Failures**
3. **Capacity Building and Institutional Strengthening**

1. *Economic Valuation and Accounting*

The Immediate Priorities are:

1. To assess, as far as is possible, the full economic contributions made by each of the main sectors of the Ethiopian economy which are dependant on natural resources and identify the main gaps in environmental-economic data.
2. To determine how the National Accounts can be extended to give due weight to natural resource based activities which are currently operate outside the market system, and to develop estimates of the value of such activities to the country's economy.
3. To develop an appropriate system of natural resources stock and flow accounts, firstly in physical terms, to be used as a basis for subsequently developing, in the medium term, an appropriate system of accounts in monetary terms.

The Medium Term Priorities are:

1. To strengthen the methodology of calculating the System of National Accounts to reflect more accurately the contribution made by natural resources to the nation's income as well as to reflect more accurately the degradation and depletion of those resources.
 2. To strengthen the current methodology of economic cost benefit analysis used in project appraisal to more fully incorporate monetary values of natural resource use and depletion and environmental services and functions.
 3. To establish an integrated macro economic management information system (IMEMIS) at the national and regional levels.
- 2. *Correcting Market Failures and Provision of Incentives or Disincentives to achieve Sustainable Environmental Management***

The Immediate Priorities are:

- 1 To undertake a review of past government policy interventions to determine the environmental impacts (positive and negative), if any.
- 2 To undertake a study into the need for, and role of, subsidies and other potential incentives to improve land, crop and animal husbandry.

3. To establish a formal system of environmental review and assessment of all state investment proposals and policies.

The Medium Term Priorities are:

- 1 To assess appropriate levels of user charges, at the community, regional and national level, for the use or harvesting of and access to natural resources: e.g. visitor charges for entry to protected areas and cultural sites, grazing and cut and carry charges for individual livestock owners in communal grazing areas, charges for irrigation water in small, medium and large irrigation schemes.
- 2 To assess the appropriate levels of taxes, tax concessions, performance bonds, etc, required to provide sufficient incentives/disincentives to use and management natural resources in a sustainable manner.
- 3 To investigate on a trial basis at community, regional and national levels, the use of short, medium or long term concessions with appropriate conditionalities of access to natural resources, e.g. logging in community, regional and state forests, establishing private lodges in national parks, wildlife sanctuaries, and regional and state protected forests, private water transport on the major lakes, hunting concession issued by communities or regional governments in or outside controlled hunting areas.

3. *Capacity Building and Institutional Strengthening*

The Immediate Priorities are:

1. To develop the capacity of concerned regional government agencies, through a programme of training and technical assistance, in the field of environmental economics in national accounting and economic cost benefit analysis.
2. To develop the capacity of central and regional government agencies, through as programme of training, study visits to other countries and technical assistance, to undertake the analysis required in establishing appropriate and effective user charges, tax and other incentives and concessions for sustainable resource use and management.

3. To develop the capacity of communities, through a programme of training and exchange visits to other communities, to effectively assess the appropriate levels of user charges and conditionalities for concessions for the sustainable use and management of natural and cultural resources in their jurisdiction.
4. To develop educational and training programmes in institutions of tertiary and secondary education to develop appropriate human resources to carry out effective environmental and natural resource economics, accounting and management.

CROSS-SECTORAL PROGRAMME VII ENVIRONMENTAL INFORMATION SYSTEMS

Components:

- 1. Establishing Environmental Information Systems.**
- 2. Capacity Building and Institutional Strengthening.**

1. Establishing Environmental Information Systems

The Immediate Priorities are:

1. To staff and equip the Natural Resources Data Base and Information System Service in the Ministry of Natural Resource Development and Environmental protection.
2. To collate, systematically arrange and file all existing natural resources data and information in all forms from within the MNRDEP and the Ministry of Agriculture.
3. To establish by law and operate a national natural resource and environmental information system network with a coordinating body and an independent budget and link departments within MNRDEP and other Ministries concerned with, generating and collecting natural resources and environmental data and information, including the Ministry of Mines and Energy, Ministry of Public Works and Urban Development, Ministry of Agriculture, Ministry of Health, Ethiopian Mapping Authority, Central Statistical Authority, other appropriate ministries, their component institutions and equivalent regional bodies.

The Medium Term Priorities are:

1. To inventory and systematically arrange and file all socio-economic, cultural and other data of interest and relevance to natural resource development and environmental management currently held by MNRDEP, other government, non-governmental central and regional, as well as international agencies in and outside Ethiopia to create an accessible network, and to photocopy or reproduce in other ways the documents in the network to create a more easily accessible information centre.
 2. To develop Natural Resources Data Base and Information Systems Services in regional bureaus of Natural Resource Development and Environmental Protection.
- 2. *Capacity Building and Institutional Strengthening***

The Immediate Priorities are:

1. To provide training and logistical support to the Natural Resource Data Base and Information System Service in MNRDEP and the other components of the environmental information systems network to be created.

The Medium Term Priorities are:

1. To provide training and logistical support to the natural resource data base and information system services in regional bureaus to enable them to effectively function as the centres of environmental information systems networks within the region, and between the region and the central information network.
2. To develop the methodologies of collecting, storing and safeguarding information as community intellectual property and trying, on a pilot basis, the collecting, storing, retrieving and distributing scientific and technological information available in communities.

**CROSS-SECTORAL PROGRAMME VIII
ENVIRONMENTAL RESEARCH**

Components:

1. **Strategic, Applied and Adaptive Research.**
2. **Capacity Building and Institutional Strengthening.**

1. *Strategic, Applied and Adaptive Research*

The Immediate Priorities are:

1. To establish an Environmental Research Fund for contract research on environmental problems and issues, including those of a socio-economic, economic and cultural nature.
2. To undertake a study and assessment of priority areas for environmental research.
3. To establish the mechanisms and procedures for assessing and evaluating research requests and issuing contracts.

The Medium Term Priorities are:

1. To establish formal linkages with relevant international research and development institutions, universities and other institutions, and develop, where appropriate, collaborative research projects and studies.
 2. To promote and support traditional systems of environmental research and the development of environmental management systems, as part of the overall environmental research programme.
- 2. *Capacity Building and Institutional Strengthening.***

The Medium Term Priority is:

1. To provide technical and other support to traditional and rural institutions to enable them to record and report on traditional systems of environmental research and management.

**CROSS-SECTORAL PROGRAMME IX
ENVIRONMENTAL SCIENCE AND TECHNOLOGY FOR
SUSTAINABLE DEVELOPMENT**

Components:

1. **Science and Technology Activities and Policy Development.**
2. **Capacity Building and Institutional Strengthening.**

1. *Science and Technology Activities and Policy Development*

The Immediate Priority is:

1. To undertake a policy study to determine the directions; scope and focus of bio-technology research.

The Medium Term Priorities are:

1. In partnership with the Science and Technology Associations (see next section), to develop a comprehensive programme of science and technology research and development, getting priorities and directions for such research and development from the Associations.
2. To undertake studies and surveys of empirical knowledge of technologies existing in communities while protecting the intellectual property rights of the communities where appropriate, and ensure that this knowledge is integrated with planning and development by publishing and making widely available the results of such studies and surveys to development workers, for example:
 - o to undertake research and development of improvements to traditional cereal products processing technologies,
 - o to undertake research and development of improvements to traditional grain storage methods.

2. *Capacity Building and Institutional Strengthening*

The Medium Term Priorities are:

1. To promote the establishment of, and provide financial and technical support to, Science and Technology Associations, initially at the community and then successively, at the wereda, regional and national levels.
2. To promote the development of artisan and craft guilds, to provide technical support to enable them to establish technical standards, and to make credit, raw materials and market available to them.
3. To establish a Technology Information and Monitoring Centre with the facilities and capacity to develop an information base on new technologies and products available world-wide which might be appropriate for adoption or adaptation in Ethiopia.

4. To provide financial, technical and logistical support to the Ethiopian Science and Technology Commission to undertake its expanded role.

CROSS-SECTORAL PROGRAMME X ENVIRONMENTAL IMPACT ASSESSMENT

Components:

1. **Development of Procedures and Guidelines.**
2. **Capacity Building and Institutional Strengthening.**

1. *Development of Procedures and Guidelines*

The Immediate Priorities are:

1. To establish an inter Ministerial Working Group to formulate umbrella procedures, powers and responsibilities and establish criteria for undertaking environmental impact assessments, the scope and content required in environmental impact statements, and the general scope and responsibilities for undertaking subsequent environmental audits and monitoring.
2. To incorporate these procedures and recommendations into the environmental legislation.

The Medium Term Priorities are:

1. To develop specific technical guidelines for undertaking EIA's by each mandated government ministry, agency or authority.
2. To develop general guidelines for incorporating social, economic and cultural concerns into the environmental impact assessment process.

2. *Capacity Building and Institutional Strengthening*

The Immediate Priorities are:

1. To develop the technical capacity within the National Environmental Protection Authority to undertake reviews of E.I.A.s' produced by state and private sectoral agencies and organisations, and to undertake subsequent environmental audits and monitoring.

2. To develop the technical capacity in responsible state agencies to enable them to effectively undertake E.I.A.s and compile environmental audits.
3. To provide technical support, as required, to private sector organisations who are required by law to undertake E.I.A.'s and compile environmental audits.

(See also Actions in Sectoral Programme X: Control of Pollution.)

CROSS-SECTORAL PROGRAMME XI ENVIRONMENTAL EDUCATION AND AWARENESS

Components:

1. **Capacity Building and Institutional Strengthening for Formal Environmental Education.**
2. **Capacity Building and Institutional Strengthening for Informal Education and Public Awareness.**

1. Formal Education

The Immediate Priorities are:

1. To establish an Inter-Ministerial Task Force on Environmental Education: (i) to determine the short, medium and long term needs of public and private (including the peasant and pastoralist) sectors for education and training in all sectors of natural resources and environmental management, (ii) to review the capacity of existing training institutions to provide for such needs, and (iii) to prepare proposals and guidelines for any changes that may be required, particularly in curriculum development. The Task Force may commission specific studies as it sees fit.
2. To establish a Technical Working Group under the direction of the Inter-Ministerial Task Force to undertake the detailed curriculum development (over 10 months) for formal education in natural resources and environmental management.

The Medium to Long Term Priorities are:

1. To provide support to local training institutions which would implement the new curricula with vocational training; training in farm and community

forestry, forest management, soil conservation and all aspects of natural resource management and development and environmental protection.

2. To provide short term technical assistance for the production and translation of text books, curriculum revision, provision of external examiners and establishment of systems of monitoring and evaluation.
3. To provide teaching materials, equipment, vehicles and in-service training, practical training and study tours to support the implementation of the curricula changes.

2. *Informal Education and Public Awareness*

The Immediate Priority is:

1. To foster the creation and then support environmental awareness associations in rural areas to compile local environmental information and alert communities to it.

The Medium Term Priorities are:

1. To promote environmental awareness at all levels of society but with particular emphasis on school children through the provision of trainers for trainers, teaching materials, magazine production and school and community activities.
2. To promote public awareness at all levels of society of the need to conserve habitats and their flora and fauna with special focus on the population living in and around conservation and protected areas through workshops, seminars, publication of educational material and magazines.
3. To provide institutional support to implementing agencies such as MOE, EWCO, the Ethiopian Wildlife and Natural History Society's "Conservation for Survival Programme" and other non-government all organisations working in the field of flora and fauna conservation.
4. To produce environmental education and awareness materials for use by the mass media.

2.2 SECTORAL PROGRAMMES

I. IMPROVED LAND HUSBANDRY FOR SUSTAINABLE AGRICULTURAL PRODUCTION

- Integrated Land Use & On-farm Soil Management
- Planting Material Seed Production
- Capacity Building and Institutional Support
- On-farm Water Management
- Land Resources Data Base, Studies and Research

II. IMPROVED CROP AND ANIMAL HUSBANDRY FOR SUSTAINABLE AGRICULTURAL PRODUCTION

- Sustainable Agricultural Activities
- Capacity Building and Institutional Strengthening
- Research, Planning and other Studies

III. RANGELAND MANAGEMENT AND PASTORAL DEVELOPMENT

- Management and Development Activities
- Capacity Building and Institutional Strengthening
- Research, Planning and other Studies

IV. FORESTRY, WOODLAND AND TREE CONSERVATION, PRODUCTION AND MANAGEMENT

- Tree and Forestry Production
- Forest Industries Development
- Capacity Building and Institutional Strengthening
- Forest Resources and Ecosystems Conservation
- Technology Development and Dissemination

V. BIODIVERSITY CONSERVATION

- Conservation of Genetic Resources
- Studies, Surveys, Planning and Research
- Species and Ecosystems Conservation
- Capacity Building and Institutional Support

VI. WATER RESOURCES DEVELOPMENT

- Irrigation, Master Plan and Project Studies
- Small Scale Irrigation Development
- Surveys for Water Supplies
- Capacity/Institutional Strengthening: Water Supplies
- Medium and Large Scale Irrigation
- Capacity/Institutional Strengthening: Irrigation
- Development of Water Supplies

VII. ENERGY DEVELOPMENT

- Development of Electricity Sub-Sector
- Development of Alternative Energy Sources
- Capacity Building and Institutional Strengthening
- Development/Conservation of Bio Energy Sources
- Energy Planning and Information

VIII MINERALS DEVELOPMENT

- Increasing the Minerals Information Base
- Environmental protection in the Mining Sector
- Support to the Private Sector
- Investment in the Mining Productive Sector
- Public Sector Capacity/Institutional Strengthening

IX. IMPROVING SETTLEMENTS AND THE URBAN ENVIRONMENT

- Improving Urban and Rural Sanitation Facilities
- Planning for Improved Settlements & Urban Environment
- Improving Settlements and the Urban Environment
- Capacity Building and Institutional Support

X. PREVENTION OF INDUSTRIAL POLLUTION AND CONTROL OF WASTE AND HAZARDOUS MATERIALS

- Management & Control of Industrial Waste & Pollution
- Capacity Building and Institutional Support
- Research, Environmental Standards & Monit. Systems

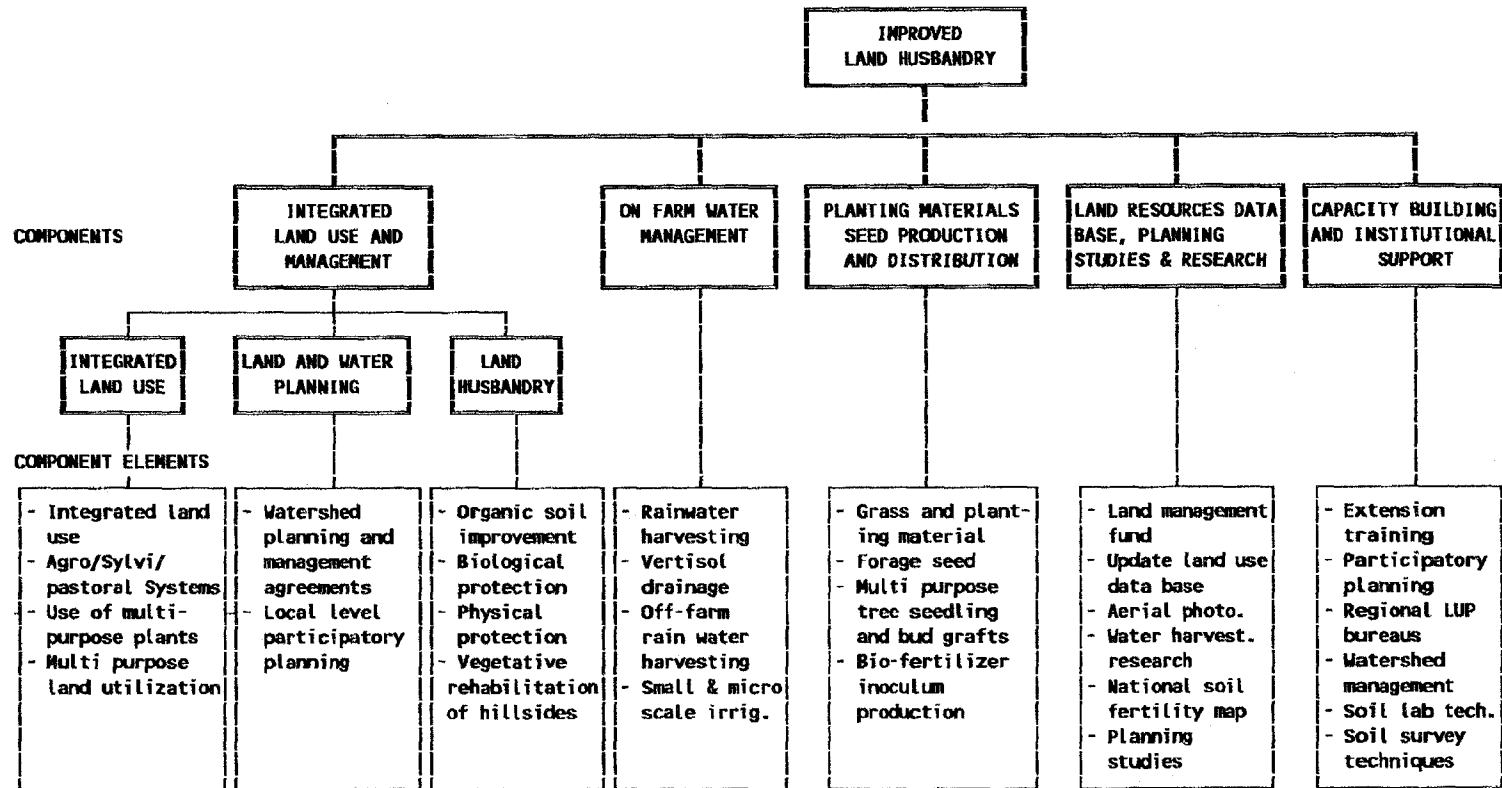
XI. CONTROL OF ATMOSPHERIC POLLUTION AND CLIMATIC CHANGE

- Protection of the Atmosphere
- Capacity Building and Institutional Strengthening

XII. CONSERVATION OF THE CULTURAL HERITAGE

- Conservation & Restoration of Heritage Areas & Sites
- Ex situ Conservation/Preservation of Relics, etc.

Programme I. Programme Planning Framework: Improved Land Husbandry



**SECTORAL PROGRAMME I
IMPROVED LAND HUSBANDRY FOR
SUSTAINABLE AGRICULTURAL PRODUCTION**

Components:

- 1. Integrated Land Use and On-Farm Soil Management**
- 2. On-Farm Water Management**
- 3. Production of Tree and Forage Planting Material**
- 4. Land Resources Data Base, Planning Studies and Research**
- 5. Capacity Building and Institutional Strengthening**

- 1. Integrated Land Use and On-Farm Land Management*

The Immediate Priorities are:

1. To develop on-farm and homestead forestry through the provision of seedlings, technical advice on seedling production, particularly of indigenous trees, and the introduction of suitable indigenous and exotic multipurpose fodder species, especially trees, coupled with technical advice on livestock feeding techniques.
2. To develop action plans on how individual cropland holdings can be gradually enclosed in order to provide incentives for bund and terrace maintenance, for increased manure application to cropland as well as for increased forage production on harvested lands (eg. undersown legumes, forage planting on strips, bunds and terraces), through studies of, and farmer visits to, existing land use systems which use enclosed fields, and through the testing on pilot schemes of other land use systems with the close participation of farming communities. (See also Sectoral Programme II: Improved Crop and Animal Husbandry and Cross-Sectoral Programme: Land and Resource Tenure)

The Medium Term Priorities are:

1. To develop and promote, through a programme of applied and adaptive research, balanced regimes of soil structure and fertility maintenance and enhancement using farm produced organic matter and supplementary additions of chemical fertilizer in order to increase crop yields and reduce fluctuations in yields (and thus risk), by building on indigenous systems of soil management and within the context of existing farming systems, including, but restricted to, improvements in storage and use of animal manure and urine, composting and green manure.

2. Given the importance of land degradation and bearing in mind the non sustainability of previous efforts, to undertake a country-wide programme of soil conservation and improved land husbandry based on agro-ecologically appropriate, economically viable and socially acceptable physical and biological methods of soil and water conservation within the framework of existing farming systems.
3. Given the tremendous erosive power of rainfall on bare earth, to develop, in participation with farming communities, appropriate integrated cropping and soil management systems which maximise the length of time the soil is covered with live and/or dead vegetative and other materials.
4. To undertake a programme of farmer participatory research into crop yields, soil retention and soil moisture conservation as related to physical structures and biological measures as well as a mix of the two approaches to soil conservation to determine the most suitable methods of soil and water conservation for specific agro-ecological zones.
4. Given the ever increasing burning of dung and residues as fuel because of the shortages of firewood, to develop and promote appropriate systems of on-farm and homestead tree production for fuelwood (to substitute for dung and crop residues as fuel), as well as for construction material, implements and crafts and for other tree products including fruits and animal feed.
5. To retain the use of animal waste as fertilizer while using it as a source of energy by developing appropriate biogas digesters and promote their widespread use (*See also Sectoral Programme VII: Energy Development.*)
6. Given the beneficial effects of appropriately chosen trees and shrubs on the productivity of land, to select and promote through participatory research with farming communities, trees and shrubs suitable for windbreaks and for soil improvement in and around farms and on uncultivated hillsides.
7. Given the presence of small irrigation and rainfed vegetable and other production in and near urban centres, to produce organic fertilizer from urban, processing and manufacturing waste.

2. *On-Farm Water Management*

The Immediate Priorities are:

1. To develop and promote appropriate methods of rainwater harvesting and improved soil moisture conservation for crop and other biomass production incorporating indigenous techniques and building on them wherever

possible, in order to maximise familiarity with, and acceptability to, farming communities.

2. To select and promote varieties and provenances of crops and trees that appropriately rest and reduce their water demand during the dry season so that the environment is not desiccated.

The Medium Term Priorities are:

1. To develop pilot water harvesting schemes and shallow ponds for micro scale irrigation covering 20,000 ha.
2. To promote the use of camber beds based on systems already in use by farming communities in order to improve the drainage of Vertisols.
3. To undertake a research and development programme for improved drainage of Vertisols.

3. *Planting Material and Seed Production*

The Immediate Priorities are:

1. To rehabilitate existing tree nurseries.
2. To compile the knowledge and experience of rural people on native trees and make up for the deficiency in scientific silvicultural knowledge.
3. To expand the current programme of farmer-based multi-purpose tree seed production and distribution.

The Medium Term Priorities are:

1. To establish the facilities for production of bio-fertilizer inoculum.
4. ***Land Resources Data Base Surveys, Planning and other Studies***

The Immediate Priorities are:

1. To undertake a feasibility study of, and try on a pilot scheme basis, a Land Management Fund which could be used to provide incentives for resource-poor farmers to undertake soil conservation measures.
2. To undertake new national coverage of aerial photography for land use planning and mapping purposes.

The Medium Term Priorities are:

1. To undertake an updating of the national land use data base.
5. *Capacity Building and Institutional Strengthening*

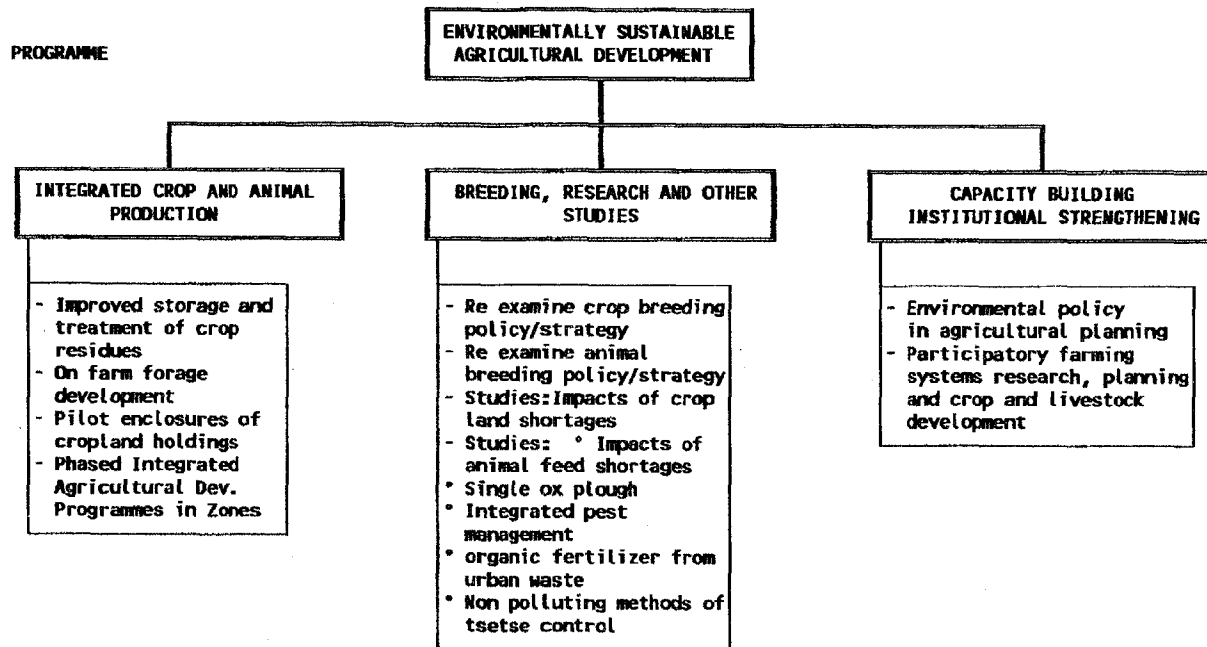
The Immediate Priorities are:

1. To establish the institutional framework and operational arrangements for implementing the improved land husbandry programme outlined in Section 6 below.
2. To inculcate in agricultural extension workers and technicians through a programme of intensive in-service training a holistic view of land husbandry and soil management, and to train them in the use of technologies for organic matter and soil nutrient enhancement, physical and biological methods of soil protection and conservation, improved methods of harvesting and conserving rainwater and soil moisture.
3. To develop, promote and train extension and development workers in appropriate approaches to local level, participatory problem diagnosis and research; planning and development of improved land husbandry technologies; integrated and multi-purpose land use; and the optimum use of rainwater and soil moisture for crop and biomass production.
4. To undertake inter-regional exchange visits for land husbandry technicians and farmers to view and exchange practical experiences in land husbandry techniques.

The Medium Term Priorities are:

1. To build-up a capacity in soil survey techniques through an intensive system of in-service practical training.
2. To provide technical support through a programme of in-service practical training in natural resource surveys, capability assessment and land use planning.
3. To provide technical support and in-service training to the Soil and Plant Laboratory Service and its networking regional institutions.
4. To establish soil and plant laboratories for soil and plant analysis to serve each of the regions, and to develop the trained human resources for them.

Programme II. Programme Planning Framework: Environmentally Sustainable Agricultural Development



**SECTORAL PROGRAMME II
IMPROVED CROP AND ANIMAL HUSBANDRY FOR SUSTAINABLE
AGRICULTURAL DEVELOPMENT**

Components:

- 1. Integrated Crop and Livestock Production**
- 2. Breeding Policy, Research, Studies and Planning**
- 3. Capacity Building and Institutional Strengthening**

This Sectoral Programme is primarily concerned with sustainable crop and animal husbandry as distinct from land husbandry, farm forestry and irrigation development although there are very clear and strong linkages among these sectoral programmes and a number of the cross-Sectoral programmes.

1. *Integrated Crop and Livestock Production*

The Immediate Priorities are:

1. In order to meet the increasing shortages of animal feed and so minimize open grazing on hillsides, promote tethered grazing and stall feeding, as well as improve animal nutrition and so reduce disease:
 - (i) To develop and promote appropriate programmes for improved storage and treatment of crop residues for animal feed.
 - (ii) To develop and undertake appropriate programmes of on farm forage development (including forage trees, shrubs and forbs)
 - (iii) To replant and maintain what is now communal grazing land producing forage and browse for cutting and carrying.
2. To determine, through pilot participatory programmes, how individual cropland holdings in the many different farming systems can be gradually enclosed in order to provide incentives for increased forage production on harvested lands (eg. undersown legumes, forage planting on strips, bunds and terraces), for bunds and terrace maintenance as well as for increased manure application. (*See also Sectoral Programme I: Improved Land Husbandry and Cross-Sectoral Programme: Land and Resource Tenure*)

The Medium Term Priorities are:

1. To formulate, with farmer groups, and wereda, zonal and regional agricultural and natural resource professionals, phased integrated agricultural development programmes at the wereda and zonal level which address the perceived problems and priorities of peasant farmers.
2. To delegate implementation of these integrated agricultural development programmes according to the appropriate degrees of responsibility to the Regional, Zonal, Wereda and local staff and farmer groups.

2. *Crop and Animal Breeding Policy, Research. Studies and Planning*

The Immediate Priorities are:

1. To establish an inter agency task force to re-examine the current crop breeding policy and programme with a view to placing more emphasis on the development of multi-line plant varieties and place its recommendations before national/regional workshops for action.
2. To establish an inter agency task force to re-examine the current animal breeding policy and programme with a view to placing more emphasis on the development of cross-breeds of broad genetic make-up and place its recommendations before a national/regional workshop for action.
3. Given the lack of accurate information for strategic livestock production planning on livestock numbers and production parameters, to undertake a national livestock census and production study.

The Medium Term Priorities are:

1. To formulate long term breeding programmes which incorporate the recommendations of the task forces and workshops into crop and animal breeding policies and strategies .
2. Given the increasing pace of change in Ethiopian farming systems due to increasing population pressure, shortages of crop and grazing land and the rapid changing macro and micro economic situations:
 - (i) To undertake studies in the various farming systems to detect possible adverse impacts of increasing shortages of farm household crop land holding on (i) the proportion of grain surplus, (ii) the type of crop

mixes (eg. proportion of grain legumes), (iii) the practice of crop rotations and (iv) the length and type of fallows.

- (ii) To undertake studies in the various farming systems to understand the dynamics of animal feed sources and situations under increasing grazing land shortages in highland peasant farming systems with particular respect to hillside closures and communal and/or individual management and regulation (including forage improvements), to residue storage and use, to relative grain and straw values and animal production objectives
 - (iii) To re-examine current research and extension programmes and modify them where necessary in the light of the findings of these studies into the dynamics of Ethiopian farming systems.
3. Given the growing shortage of oxen per farm family and the increasing reduction in size of farm holdings, to undertake a research and development programme for a single ox plough and other ways of land preparation.
 4. Given the need to reduce negative environmental impacts as well as dependence on imported chemicals, to undertake research and development into cost effective systems of integrated pest management.
 5. Given the need to improve the efficiency of labour and draught power, to undertake research and development programmes to improve traditional hand and animal drawn tools and implements, especially with reducing the work load of women as the target.
 6. Given the potential of the moist western lowlands for rainfed agriculture, to undertake research into non-polluting methods of tsetse control and the opening up of areas for agricultural development.
 7. Given the increasing numbers of people dependant on the arid and semi arid zones for agriculture, to increase and improve the current programmes of sustainable farming systems research.

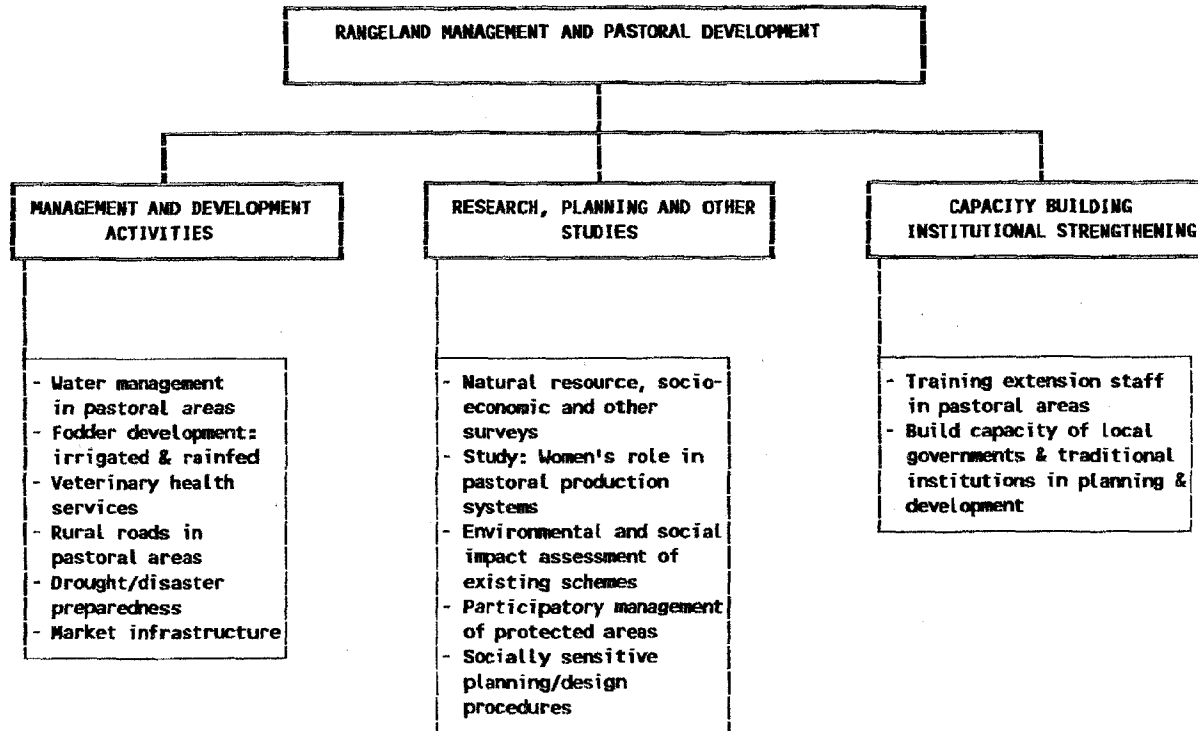
3. Capacity Building and Institutional Strengthening

The Immediate Priorities are:

1. To establish the institutional framework and operational arrangements for implementing an improved crop and animal husbandry programme.

2. To develop and implement intensive in-service training programmes at all levels, in appropriate approaches to local level participatory research and technology evaluation, problem diagnosis, planning and development of improved crop and animal husbandry technologies, integrated and multi-purpose land use and the optimum use of rainwater and soil moisture for crop and livestock feed production.
3. To provide training and technical assistance in MoA and regional agricultural bureaus to develop methodologies of environmental policy review and strategic planning for sustainable agricultural development.

Programme III. Programming Framework: Rangeland Management and Pastoral Development



**SECTORAL PROGRAMME III
RANGELAND MANAGEMENT AND PASTORAL DEVELOPMENT**

Components:

- 1. Management and Development Activities**
- 2. Research, Studies and Planning**
- 3. Capacity Building and Institutional Strengthening**

- 1. Rangeland Management and Development Activities*

The Immediate Priorities are:

1. As water is the priority need in the arid and semi arid areas, to develop water supplies where these are urgently required.
2. Given the lack of access in many parts of the pastoral areas, to construct rural roads to (as a minimum) zonal and wereda centres.

The Medium Term Priorities are:

1. Given the seasonal shortage of feed for cows in milk and calves at permanent camps, to develop rainfed and irrigated fodder reserves.
2. Given the extreme difficulties in providing a public sector veterinary service in the pastoral areas, to establish and expand a basic veterinary health service based on the training of local people and the supply of drugs at cost, to community organisers and/or private entrepreneurs.
3. Given the poorly developed livestock marketing system in the rangelands, to establish the basic market infrastructure (water supplies, temporary feed sources, goods and services, etc) linked to rural access roads together with domestic and foreign livestock market price information.
4. To assist local pastoral groups establish the necessary infrastructure and systems for effecting distress sales of livestock in times of drought, credit facilities for post drought herd reconstruction.
5. To establish local emergency feed and grain reserves for times of drought.

6. To initiate integrated participatory rangeland and pastoral development programmes in pastoral, agro-pastoral and farming communities.

2. *Research, Surveys, Studies and Planning*

The Immediate Priorities are:

1. To undertake detailed environmental and social impact studies on existing irrigation schemes in the pastoral areas and formulate, in participation with affected people, a programme of correcting their negative environmental, social and economic impacts through eg. developing irrigated dry season grazing and forage production and watering points for the livestock of pastoralists.
2. Given the dearth of such information, to undertake detailed resource, ecological, socio-economic and infrastructural surveys in the Ethiopian rangelands including the seasonal grazing areas and local resource management institutions.
3. Given the need to avoid introducing technologies or changes which might adversely affect women, to undertake studies of womens' roles in the various pastoral production systems.

The Medium Term Priorities are:

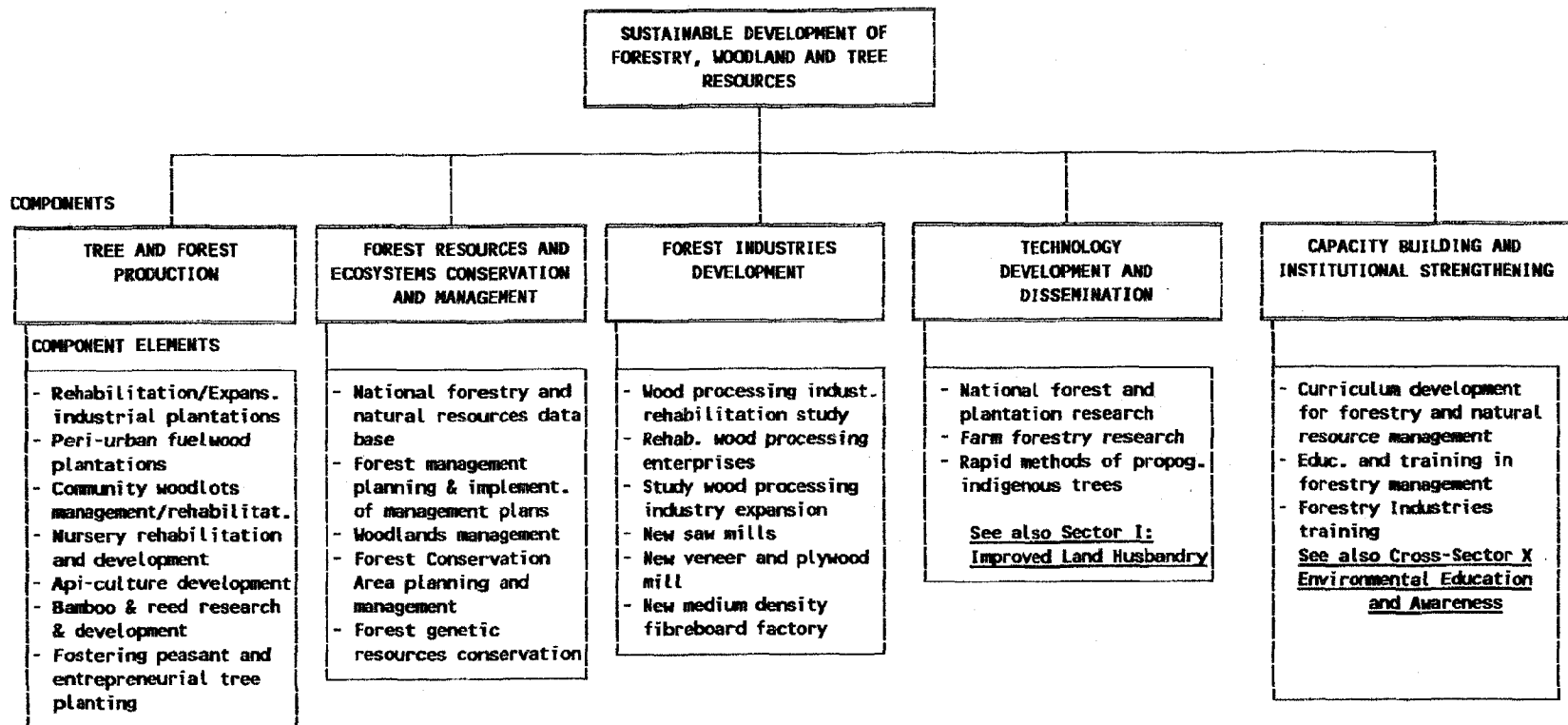
1. To develop, in participation with local pastoral communities, a sustainable management programme and administrative framework for wildlife protected areas, which will ensure the sharing of grazing and water resources and revenue generated by the protected area from tourism or controlled hunting so that the communities and the protected areas may develop mutually supportive roles.
2. To develop and implement planning procedures that ensure that pastoral communities, which might be affected by any large scale development activities in their areas, are actively consulted at all stages in the planning and design process and that they are adequately compensated for any losses which the developments might incur, that they are convinced that this is the case, and that they continue to benefit from the project so that they continue to support it.

3. *Capacity Building and Institutional Strengthening*

The Immediate Priorities are:

1. To build, through training programmes, the capacity of local governments and traditional institutions to determine their own priorities, and to plan and implement development programmes.
2. To build, through training programmes and institutional strengthening, the capacity of the extension service to assist local pastoral communities in planning and implementation.

Programme IV. Programme Planning Framework: Forestry, Woodland and Tree Resources



**SECTORAL PROGRAMME IV
FORESTRY, WOODLAND AND TREE CONSERVATION,
PRODUCTION AND MANAGEMENT**

Components:

- 1. Forest Resource and Ecosystem Conservation and Management**
- 2. Tree and Forestry Production**
- 3. Technology Development and Dissemination**
- 4. Forest Industries**
- 5. Capacity Building and Institutional Strengthening**

1 *Forest Resource and Ecosystem Management*

The Immediate Priorities are:

1. To expand the current national forestry and natural resources data base study (Woody Biomass Study) to cover the whole country.
2. To undertake a rapid nationwide survey and assessment of the biodiversity values (fauna and flora) of Ethiopia's forests and woodlands.
3. To develop a process of, and methodologies in, participatory forest planning and management by establishing agreed partnerships between central and regional government, regional and local governments and communities and local governments so that communities can benefit financially from the preservation, conservation and sustainable and productive use of the forests within their areas and they, in turn, afford protection to the forests.
4. To expand the current programme of demarcation of boundaries and formulation of management plans for forest priority areas within the framework of the participatory forest planning process, reflecting the biodiversity values previously identified.

The Medium Term Priorities are:

1. To expand the existing formal protected area network (ie. national parks and wild life sanctuaries) to include natural forests and woodlands which are currently not represented.

2. To ensure that local species of trees for seed supply for the natural regeneration of forests on uncultivable slopes are available nearby: eg. in church groves or by specially planting community groves.
3. To develop appropriate livestock feed technologies in farming systems adjoining protected forest areas so as to limit the need for open grazing in these forests.

The Long Term Priorities are:

1. To pursue agricultural and pastoral development policies and programmes that will reduce pressure on fragile woodland resources and ecosystems.

2. Tree and Forest Production

The Immediate Priorities are:

1. To support rural families to plant their own trees for wood supply.
2. To undertake national, regional and local level farm forestry planning studies to assess which areas and farming systems are likely to see an expansion in tree planting, what are the particular elements for government support and what government intervention may be counter-productive.
3. Deriving from the farm forestry studies, to facilitate a prioritized but rapid build up of seedling supply by initially expanding production capacity at state run nurseries but increasingly to promote farmer/community production of seedlings, and, in the medium term, to transfer state nurseries to community or individual farmer operation.

The Medium Term Priorities are:

1. To establish a system of incentives, financial and tenurial, that promote private sector development of industrial plantations and farmer and community investments in farm forestry, hillside protection forestry, woodlots and peri-urban fuelwood plantations.
2. To reorganize and strengthen forestry research and extension to ensure effective integration of agro-forestry practices (at farm and community levels) with land management and farming systems, and to secure active involvement of local communities and farmers in land use planning. *(This has clear linkages with Sectoral Programmes 1 and 2)*

3. To reduce government's involvement in industrial and peri-urban plantations by gradually transferring management rights to private interests; to restructure remaining state plantations, if any, to ensure commercial viability.
4. To promote the development of, and facilitate improvements to, apiculture through the provision of technical advice and technology demonstrations.

3. *Forest Industries*

The Immediate Priorities are:

1. To make it mandatory that wood processing industries use only wood from plantations and not from natural forests unless deliberate exceptions are made by the Central Government.
2. To facilitate wood using industries to establish their own forests or have firm contracts with wood producing plantations, through tax or other incentives.

4. *Technology Development and Dissemination*

The Immediate Priorities are:

1. To establish a Forestry Research Fund for contract research.
2. To establish a Forest Research Coordination Committee which will develop a forestry research programme and determine priorities in terms of strategic, applied and adaptive research; and to give it the power to direct priorities in the use of the forestry research fund.
3. To give priority to research on farm forestry as a part of farming systems research (*This has linkages with Sectoral Programmes I and II*).

The Medium Term Priorities are:

1. To establish an improved system of dissemination of agro-forestry research results to the extension service.

5. Capacity Building and Institutional Strengthening

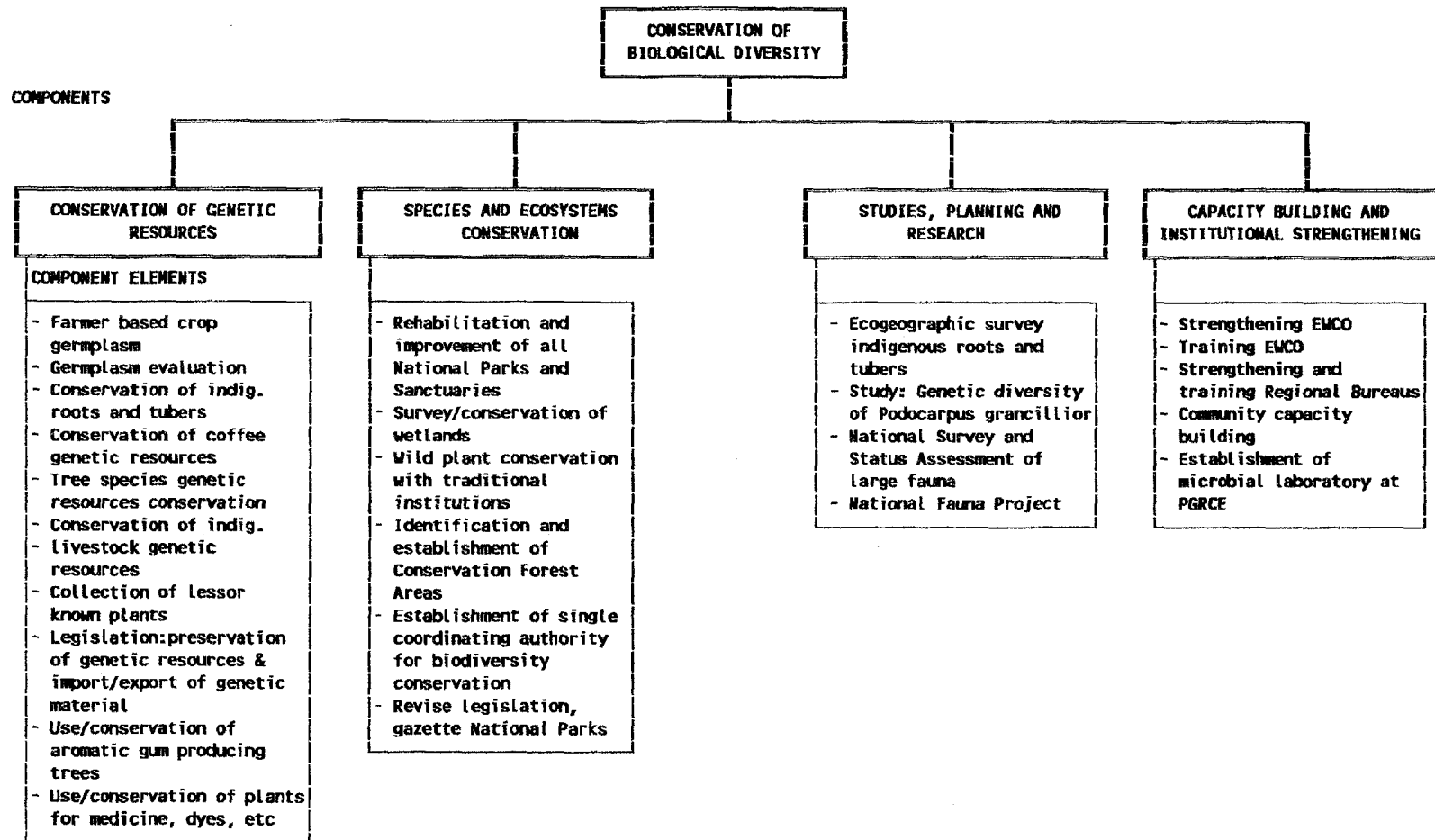
The Immediate Priorities are:

1. To establish a technical working group to undertake the development of a curriculum for education in forestry (*Linkage to Cross-Sectoral Programme 11*).
2. To develop a revised school and higher education curriculum in forestry management and conservation.

The Medium Term Priorities are:

1. To implement the recommendations of the Forestry Technical Working Group through long term technical assistance to schools and institutions of higher education.

Programme V. Programme Planning Framework: Conservation of Biological Diversity



SECTORAL PROGRAMME V BIODIVERSITY CONSERVATION

Components:

- 1. Conservation of Genetic Resources of Economic Plants and Animals**
- 2. Wild Species and Ecosystems Conservation and the Protected Area Network**
- 3. Capacity Building and Institutional Strengthening**

- 1. Conservation of Genetic Resources of Economic Plants and Animals*

The Immediate Priorities are:

1. To enact and enforce legislation for the preservation, conservation, management and sustainable use of genetic resources.

The Medium Term Priorities are:

1. To support communities to institute *in situ* conservation of samples of their agricultural systems in the face of change.
2. To evaluate the biodiversity of incense, myrrh and gum producing species and develop and implement an action programme for their sustainable use and conservation through joint community and local/regional government involvement.
3. To evaluate the biodiversity of medicinal plants and, through a participatory process involving traditional medicinal practitioners, local communities and institutions and local/regional governments, develop and implement an action programme for their sustainable use and conservation.

- 2. Wild Species and Ecosystems Conservation and the Protected Area Network*

The Immediate Priorities are:

1. To provide emergency support to the national parks and wildlife sanctuaries in order to rehabilitate and improve their basic facilities and infrastructure so that EWCO can re-establish and maintain its capacity to protect and manage.

2. To undertake a status assessment and study on the immediate conservation action required to save the Simien wolf, the Mountain Nyala and Swaynes Hartebeest.
3. To undertake an inventory and status assessment of the larger mammals in those areas where game and trophy hunting takes place.
4. To carry out a biodiversity country study to identify the animal and plant species that require protection and to develop action programmes for their sustainable use and conservation.

The Medium Term Priorities are:

1. To undertake a systematic and detailed survey and assessment of the biodiversity status of natural and near natural areas both inside and outside the existing protected area network, and to define the priorities for both the management of the existing protected areas and the designation of additional areas.
2. In the light of the biodiversity status assessment, to review existing and prepare new management plans for all existing national parks and wildlife sanctuaries, ensuring, at the same time, the decisive participation of the local people in the planning, management and protection of these protected areas and the flora and fauna they contain.
3. To initiate a process to establish a range of flexible mechanisms for the management of protected areas, which includes local communities as on site managers and ensure that a significant proportion of any benefits accrue to those local communities.
4. Where valuable areas of biological diversity are identified outside the formal protected area system, to initiate a participatory process to explore ways and means of how such communities (with government assistance) can protect and conserve the species and ecosystems in such areas.
5. To support local communities to set aside and protect samples of non-agricultural area free from human interference (eg. in and around churches, burial grounds and sacred groves, uncultivable hillsides and marshes).

6. To establish national and regional botanical gardens, zoological parks and aquaria to conserve, manage and utilize microorganisms, wild flora and fauna.
7. To fully rehabilitate and improve visitor facilities and infrastructure in the national parks and wildlife sanctuaries using a mix of government, community and private entrepreneurial resources.
8. To revise, enact and enforce legislation for the preservation, conservation, management and sustainable use of species and ecosystems resources in accordance with the guiding principles in the National Policy on Natural resources and the Environment, and so provide for the conservation of biological diversity in its widest sense.
9. In consultation with regional administrations and in accordance with the reformed legislation for the conservation of biological resources, to gazette all existing national parks and wildlife sanctuaries.
10. To recognize and identify certain plant and animal species which may be pests or vermin and exempt them from protection outside strict protection areas.
11. To strengthen links to international conventions on biological diversity: eg. CITES, Ramsar, World Heritage, etc.

3. *Capacity Building and Institutional Strengthening*

The Immediate Priorities are:

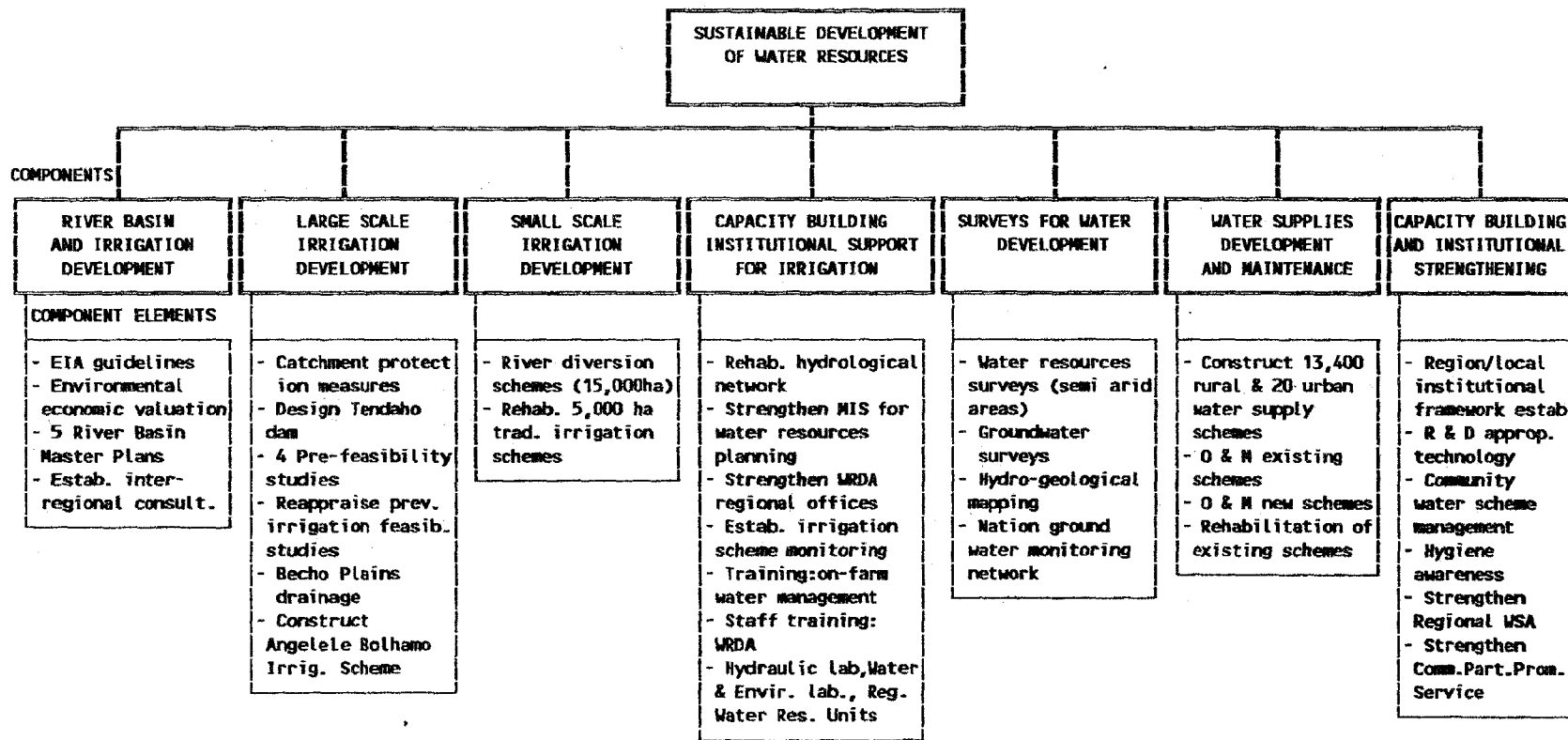
1. To bring sectoral institutions concerned with the conservation of biological diversity under one common coordinating authority.
2. To provide EWCO and the Regional NRDEP Bureaus with minimum amount of equipment, transport and materials to effectively operate in the national parks, wildlife sanctuaries and controlled hunting areas.
3. To provide training and to raise conservation awareness through workshops and meetings with local communities in and around the parks and sanctuaries.
4. To develop a long term training programme for EWCO, regional bureaus and park staff for protected area management.

5. To strengthen the biodiversity conservation role and capacity of traditional institutions, including churches, mosques and communities.

The Medium Term Priorities are:

1. To foster public support for the conservation of biological diversity by *encouraging private sector investment in wildlife conservation.*
2. To develop a trust fund to enable the long term and sustainable funding of institutional strengthening and capacity building.
3. To implement a comprehensive training programme for EWCO, regional bureaus, park staff and local communities in protected area management.
4. To develop the legislation, capacity and the international linkages required to ensure the protection of the interests of the people of Ethiopia in the granting of access to biological diversity and technology and knowledge relevant to its use and management and in obtaining their full entitlement of benefits, including the protection of community intellectual rights, according to the Convention on Biological Diversity.
5. To assert national sovereignty over Ethiopia's genetic resources by enacting and enforcing legislation for the regulation of the transfer of genetic resources (including modified organisms and alien species and races) into, out of and within the country.

Programme VI: Programme Planning Framework: Water Resources Development



**SECTORAL PROGRAMME VI
WATER RESOURCES DEVELOPMENT**

Components:

- 1. River Basin Planning**
- 2. Medium and Large Scale Irrigation Development**
- 3. Small Scale Irrigation Development**
- 4. Capacity Building and Institutional Strengthening for Irrigation Development**
- 5. Surveys for Water Supplies Development**
- 6. Development of Water Supplies**
- 7. Capacity Building and Institutional Strengthening for Water Supply Development**

- 1. *River Basin Planning***

The Immediate Priorities are:

1. To develop, and institute by law, administrative order, procedures and guidelines for environmental impact assessment of all major natural resource development and management projects proposed in river basin master plans.
2. To institute by law and administrative order the incorporation of the costs and benefits of protecting watershed forests, wetlands and other key ecosystems in the economic analysis of all development projects proposed in river basin master plans and develop procedures and guidelines for doing so.
3. To institute environmental impact assessment requirements on all major water conservation, development and management projects.
4. To ensure that all projects involving the impoundment of water have components to retard or possibly even stop siltation.

The Medium Term Priorities are:

1. To undertake five river basin master plan studies, including the Tekeze-Angereb-Gwang, Blue Nile, Rift Valley Lake, Wabi Shebelle and Genale-Dawa-Weyib.

2. To establish an appropriate institutional framework for continuous participation and consultation between river basin planning teams and those regional governments whose areas of jurisdiction lie within a basin under study.
3. To promote the adoption of an integrated approach by all concerned agencies in the implementation of conservation and protection measures to control soil erosion and siltation and to maintain productive water environments, by specifying in an implementation schedule listing the responsible agencies for development and conservation components of River Basin Master Plans.
4. To develop a participatory body for each river basin shared by regions, involving regional governments for avoiding possible inter-regional conflicts in water resources use.

2. *Medium and Large Scale Irrigation Development*

The Medium Term Priorities are:

1. To undertake detailed design work on the Tendaho Dam
2. To rehabilitate the head works on the Amibara Project.
3. To undertake 4 irrigation scheme pre-feasibility studies: Wachile, Negech, Kuldash and the Awash eastern basin.
4. To re-appraise previous large scale irrigation feasibility studies in the light of the new economic policy.
5. To undertake the Becho Plain drainage improvements project.
6. To construct the Angelele Bolhamo Irrigation Scheme.

3. *Small Scale Irrigation Development*

The Medium Term Priorities are:

(Note the strong linkages to Sectoral Programme I: Improved Land Husbandry)

1. To develop river diversion schemes using gravity or pump supply for small scale irrigation schemes covering 15,000 ha.

2. To rehabilitate 30,000 ha of traditional irrigation and improve water application practices.
3. To construct earth dams and ponds for irrigating peasant agriculture.
4. ***Capacity Building and Institutional Strengthening for Irrigation Development***

The Immediate Priorities are:

1. Given the need for long term hydrological data in river basin planning, to rehabilitate and up-grade the hydrological monitoring network.
2. To strengthen the existing management information system for water resource planning.
3. To develop the capacity in the regional/zonal water resource development departments to undertake irrigation design and implementation and strengthen the regional desks for women in development.
4. Given the need to improve the management of existing and future irrigation schemes, to establish a system of monitoring water management and crop production.

The Medium Term Priorities are:

1. To promote, through on-site training, effective water management techniques at the farm level for improved performance of medium to large scale irrigation schemes.
2. To expand the facilities for remote sensing in resource planning in EVDSA.
3. To provide training to staff of the Water Resources Development Agency, the Ethiopian Valleys Development Studies Authority and the Ethiopian Institute for Geological Surveys.
4. To provide technical support to the private water development sector.
5. To establish a hydraulic laboratory in WRDA, a water and environmental laboratory in EVDSA and regional water research units.
6. To strengthen the Ethiopian Meteorological Service.

5. *Surveys for Water Supply Development*

The Immediate Priorities are:

1. To undertake water resources surveys for water supply development in the arid and semi arid areas.
2. To undertake a groundwater survey in the drought prone areas of northern and eastern Ethiopia.

The Medium Term Priorities are:

1. To undertake a national hydro geological mapping survey at 1:1 million scale.
2. To establish a national groundwater monitoring network.

6. *Development of Water Supplies*

The Medium Term Priorities are:

1. To construct 13,400 rural water supply schemes and 20 urban schemes,
2. To undertake operation and maintenance of existing rural and urban water schemes.
3. To rehabilitate existing rural water schemes.
4. To establish systems of operation and maintenance for newly constructed rural and urban water schemes.

7. *Capacity Building and Institutional Strengthening for Water Supply Development*

The Immediate Priorities are:

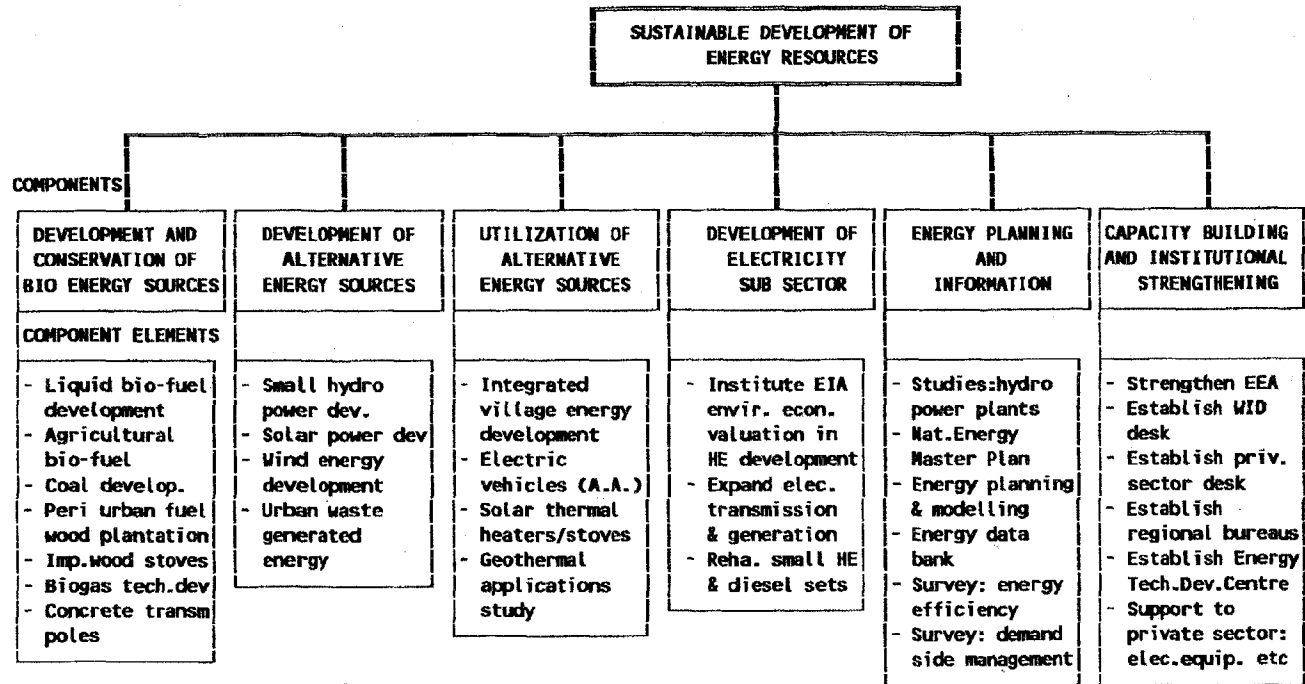
1. To develop institutional mechanisms at the regional and local levels to coordinate water supply development activities carried out by the various government and non-government agencies.

2. To review existing, and develop more appropriate and affordable, technologies for water supplies in rural and urban areas and to ensure that these are made known to all water supply implementing agencies (governmental and non-governmental), communities and the public at large.
3. To empower communities, by developing a local capacity for community management and maintenance of water sources, and the prevention of health hazards around water points.
4. To increase the level of community awareness on the importance of the quality of water particularly with regard to hygiene, through public awareness campaigns and environmental education.
5. To create public awareness concerning the provisions of the Ethiopian Water Resources Code.

The Medium Term Priorities are:

1. To develop the regional/zonal capacity to undertake water supply design and implementation and to strengthen the regional desks of women in development.
2. To strengthen the capacity of the community participation promotion service (CPPS) at regional and zonal levels to promote the concept of village level construction, operation and maintenance of water supplies.
3. To ensure that rural and small scale urban water supply systems are controlled and managed by local communities.
4. To provide technical and credit support to the private sector in water supply development activities.

Programme VII. Programme Planning Framework: Energy Resources Development



SECTORAL PROGRAMME VII ENERGY DEVELOPMENT

Components:

- 1. Development and Conservation of Biomass Energy Resources**
- 2. Development of Alternative Energy Resources and their Utilization**
- 3. Development of Electricity**
- 4. Energy Planning and Information**
- 5. Capacity Building and Institutional Strengthening**

1 Development and Conservation of Biomass Energy Resources (this Component has close and direct linkages with those of Sectoral Programme I: Improved Land Husbandry and Programme IV: Forest, Woodland and Trees Resource Management)

The Immediate Priorities are:

1. To comprehensively address biomass energy resources in the Ethiopian National Energy Master Plan.
2. To ensure the integration of the implementation of the National Energy Policy and Master Plan, the National Agricultural Development Policy and the Ethiopian Forestry Action Programme through annual reviews of these policies, strategies and programmes by the National Environmental Protection Council.

The Medium Term Priorities are:

1. To implement the Tree and Forestry Production Programme (*of Sectoral Programme IV: Forest, Woodland and Trees Resource Management*)
2. To develop peri-urban fuelwood plantations using long term land leases to private investors near urban areas.
3. To boost research on the design of and promote improved cooking stoves, and concentrate woodfuel efficiency extension on the urban areas and rural areas with acute biomass shortage.
4. To promote local manufacturing and distribution of improved charcoal and biomass stoves.

5. To develop appropriate designs of biogas digesters and promote their widespread adoption especially for rural lighting (*See also Sectoral Programme I: Improved Land Husbandry*)h

The Long Term Priorities are:

1. To install 10 pilot liquid bio-fuel plants (e.g. methanol, ethanol) in selected regions.
2. To determine the feasibility of locally producing bio-fuels as alternative to conventional diesel oil.
3. To develop and produce 50,000 tons of coal per year as an alternative to charcoal.

2. *Development of Alternative Energy Resources and their Utilization*

The Medium Term Priorities are:

1. To construct small hydro-power plants in selected sites.
2. To install pilot solar power plants and establish credit facilities for private sector solar power development.
3. To construct wind power plants in various regions.
4. To locate, develop, adopt or adapt energy sources and technologies to replace biomass fuels.
5. To undertake a feasibility study and construct a pilot plant for energy generated from urban waste.

The Long Term Priorities are:

1. To encourage the use of electricity for water pumping, crop drying, food processing, dairy product processing, refrigeration and other cottage industries in those towns and villages where hydro-power is available.
2. To undertake a feasibility study and construct an electric passenger transport system (trolley bus) for Addis Ababa.
3. To develop low cost and reliable solar water heating system for domestic and industrial purposes.

4. To develop geo-thermal fields for industrial and agro-processing (eg. tobacco drying, soda ash production, fish drying, coffee drying etc)

3. *Development of Electricity*

The Immediate Priorities are:

1. To institute by law and administrative order environmental impact assessment of all proposed major hydro and fossil fuel electricity development projects and develop the necessary procedures and guidelines to enable this.
2. To institute by law and administrative order the incorporation of the costs and benefits of protecting watershed forests, wetlands and other key ecosystems in the economic analysis of all hydro and fossil fuel electricity development projects and develop the necessary procedures and guidelines to enable this.

The Medium Term Priorities are:

1. Rehabilitate small hydro-power plants and private diesel generating sets.
2. To construct small hydro-power or diesel generator plants to supply electricity to remote population centres.
3. To promote the installation of water mills for grinding and oil pressing in areas with no electricity through the provision of technical assistance and credit facilities.

4. *Energy Planning and Information*

The Immediate Priorities are:

1. To develop energy models to be used in energy planning.
2. To undertake a survey to assess future energy demands.
3. To undertake surveys to assess the efficiency of energy use by industry and other users.

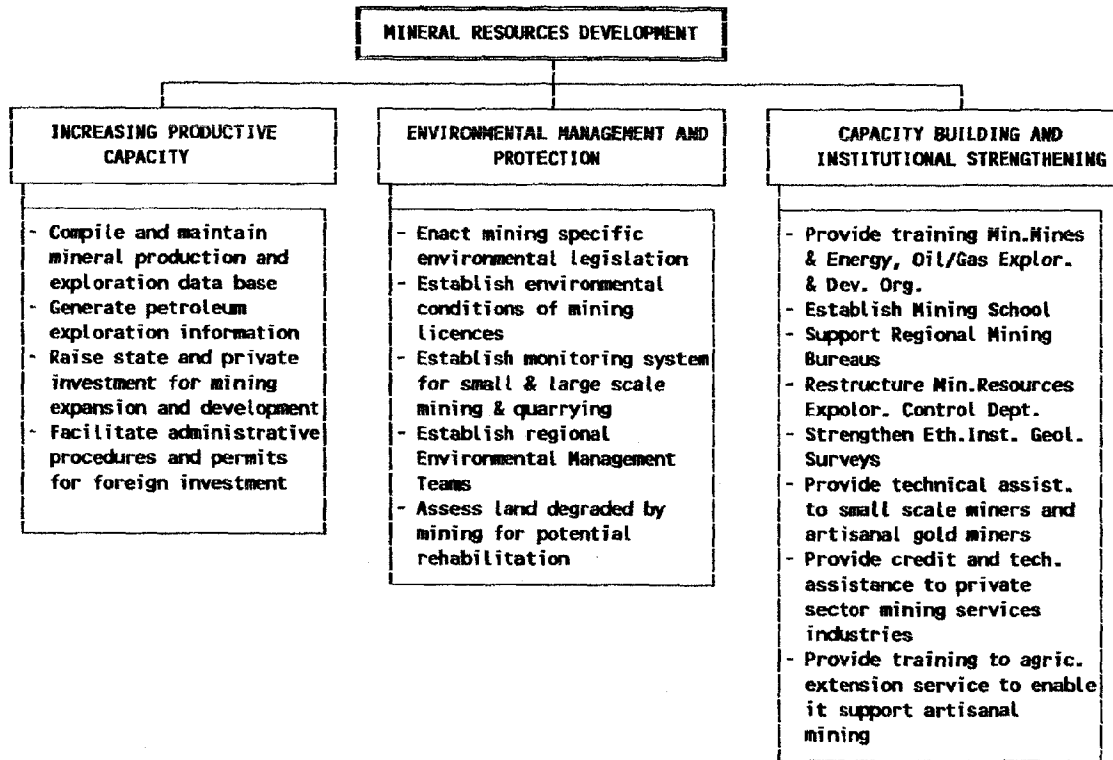
The Medium Term Priorities are:

1. To prepare the National Integrated Energy Master Plan.
2. To establish a national energy data bank.
5. *Capacity Building and Institutional Strengthening in the Energy Sector*

The Medium Term Priorities are:

- 1 To establish strong energy bureaus in each region and provide each with technical assistance, training and institutional support.
- 2 To strengthen the research, planning and project implementation of the Ethiopian Energy Authority by providing it with laboratory, workshops, equipment and offices.
3. To establish a Private Sector Desk in EEA.
4. To establish an Energy Technology Development Centre with a workshop for the construction of biomass stoves, micro-hydro turbines, windmills, solar heaters, solar voltaic elements, and testing facilities for appliances and devices.
5. To provide technical and credit support to private manufacturers of electrical and other energy equipment.

Programme VIII. Programme Planning Framework: Mineral Resources Development



SECTORAL PROGRAMME VIII MINERAL DEVELOPMENT

Components:

- 1. Increasing Productive Capacity**
- 2. Environmental Management and Protection**
- 3. Capacity Building and Institutional Strengthening**

- 1. Increasing Productive Capacity*

The Immediate Priorities are:

1. To compile and maintain a public mineral production and exploration data base and disseminate this to potential private sector investors.
2. To generate petroleum exploration information in unexplored areas of sedimentary rocks, to standardize existing petroleum exploration data, to carry out evaluation drilling and to make available all data to oil companies, through sale, in order to promote further oil exploration.
3. To facilitate foreign investment by simplifying procedures for obtaining the necessary permits.

The Medium Term Priorities are:

1. To raise state and private sector investment for the expansion of capacity at Lege Dembi gold mine, the development of Kenticha rare metal deposit, the development of Calub natural gas, for small scale gold mining, for lignite mining, for mining of filler materials and for improved salt production.
2. *Environmental Management and Protection in the Mining Sector*

The Immediate Priorities are:

1. To initiate the preparation and enactment of mining specific environmental legislation (*see also Cross-Sectoral Area XI: Environmental Legislation and Regulation*)
2. To institute as conditions of licence, mandatory pre-development environmental impact assessments for large scale mining projects, to be financed by the project owners (*see also Cross-Sectoral Area IX: Environmental Impact Assessment*).

3. To implement continuous monitoring of artisanal, small and large scale mining and enforce measures of appropriate mitigation and reclamation during and after operations (*see also Sectoral Area X: Control of Pollution*).

The Medium Term Priorities are:

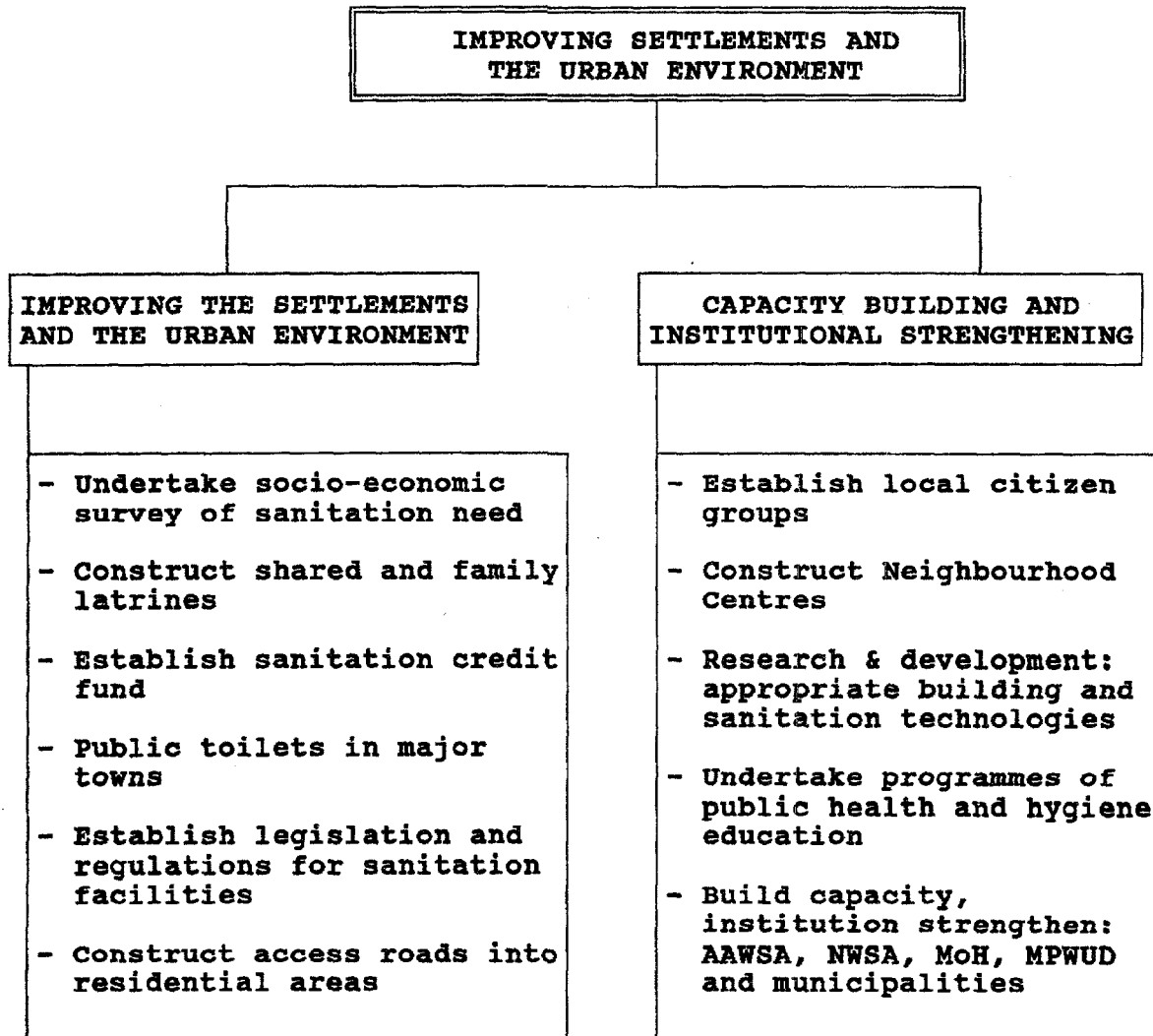
1. To undertake an assessment of the degradation of lands due to past mining and quarrying and to work with local communities on ways and means of restoring these lands to productive use.
2. To provide advice to artisanal miners on overburden removal and other relevant activities and issues to minimize the environmental impacts of such mining.
3. ***Capacity Building and Institutional Strengthening***

The Medium Term Priorities are:

1. To provide in service training in the Ministry of Mines and Energy (MME) to increase the capacity in the preparation and appraisal of mining and energy projects; to open training programmes required by the mining and energy industries; and to open a mining school for technical training in mining.
2. To develop and implement for the Mineral Resources Exploration and Control Department (MRECD) a suitable internal structure, task definitions and operation manuals, to undertake in service training programmes, to provide it with office space and equipment.
3. To train staff of the Oil and Gas Exploration and Development Organisation (OGEDO) in petroleum geology, geochemistry, geophysics, and evaluating private sector performance in oil exploration.
4. To provide training and support to regional mining bureaus to enable them to undertake surveys, planning, regulation and technical support to artisanal mining and quarrying in their respective regions.
5. To strengthen the technical capacity of the Ethiopian Institute of Geological Surveys to acquire and maintain in computer data base all geological and mineral information; to strengthen the Central Geological Laboratory in EIGS through the introduction of new techniques in chemical, mineralogical, and physical analysis; to upgrade the cartographic and publishing services with a data base and GIS facilities; and to provide space, facilities and literature for the Earth and Mineral Science Library.

6. To organise an environmental management team at each regional mining bureau, and to provide training in environmental management skills to be employed in survey, monitoring, protection, reclamation, public education, and industrial training.
7. To provide technical and credit facilities support to persons engaged in small scale mining and quarrying.
8. To provide technical and extension services to persons engaged in artisanal gold mining.
8. To provide technical and credit support to mining service industries in the private sector.

Programme IX. Programme Planning Framework: Improving Settlements and the Urban Environment



Components:

- 1. Improving Settlements and the Urban Environment**
- 2. Capacity Building and Institutional Support**

1. *Improving Urban and Rural Sanitation*

The Immediate Priorities are:

1. To undertake research and surveys into the needs for, and socio-economic aspects of, urban and rural sanitation facilities and services.
2. To develop a National Sanitation Strategy clearly setting out appropriate types of, and technologies, for sanitation facilities, sanitation delivery systems, priorities in terms of urban and rural population densities and climatic conditions, and the institutional framework for implementation.
3. To undertake sanitary landfill surveys in Addis Ababa and all major urban centres.

The Medium Term Priorities are:

1. To construct with government funds, 71,000 shared VIP latrines in the low income and high density (i.e. more than 700 persons per hectare) areas of Addis Ababa and older towns, and to establish a programme of frequent emptying by tankers.
2. To provide credit facilities and technical assistance to house owners in low density and peri-urban areas (i.e. less than 700 persons per hectare) to construct 465,000 family latrines.
3. To ensure the construction of latrines in new housing areas at the time of house construction as a conditionality of the land lease.
4. To establish a revolving sanitary credit fund in the Housing Bank to enable house owners to construct family latrines and for private entrepreneurs to set up latrine emptying services.
5. To formulate legislation and establish appropriate urban housing, sanitation and technology standards and incorporate these into conditionalities for urban land leases.

6. To improve road access, storm water disposal and surface drainage to residential areas as part of urban environmental improvement schemes .
7. To construct public toilets in all major towns.

2. *Capacity Building and Institutional Strengthening*

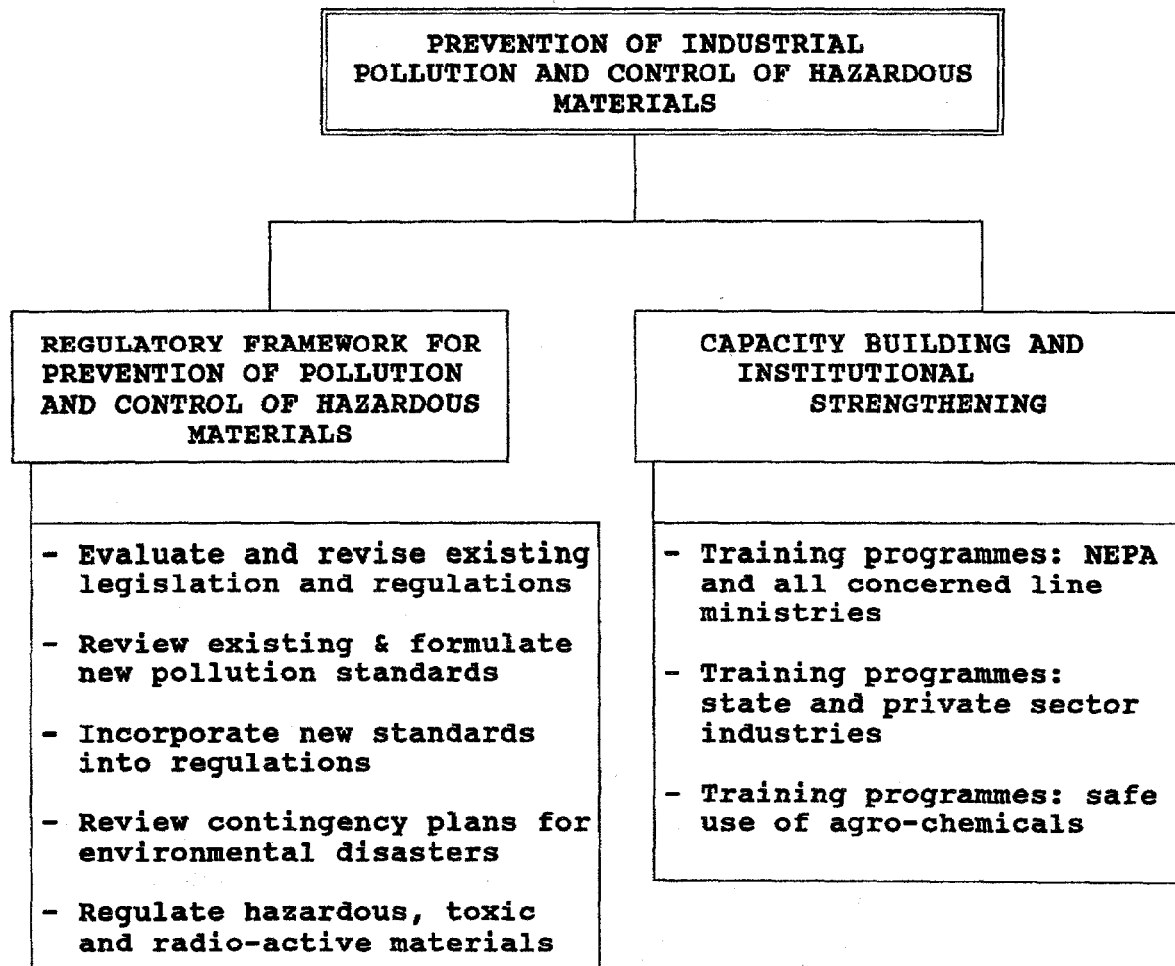
The Immediate Strategies are:

1. To clarify the institutional structure and mandates for urban sanitation, latrine emptying, sewerage, solid waste disposal, water supplies, public health and hygiene, sites and services and the urban environment.
2. To develop the capacity and institutionally strengthen the Addis Ababa Water and Sewerage Authority, and the central and regional offices of the Water and Sewerage Authority, the municipal administrations, department of Public Health in Ministry of Health, and the Min. of Public Works and Urban Development.

The Medium Term Priorities are:

1. To promote the establishment of local environmental hygiene citizen groups and associations and to support with funds and sites the building of neighbourhood centres in rural and urban areas.
2. To provide support to the Ministry of Public Works and Urban Development to enable it to research and develop appropriate and affordable technologies for building materials, construction of houses, sanitary facilities and residential area access roads.
3. To undertake programmes for health education and hygiene awareness separately targeted at urban and rural areas.

Programme X. Programme Planning Framework: Prevention of industrial Pollution and Control Hazardous Materials



Components:

- 1. Regulatory Framework for Pollution Control and the Management of Hazardous Materials**
- 2. Capacity Building, Institutional Strengthening and Increasing Environmental Protection Awareness**

- 1. Regulatory Framework for Pollution Control and the Management of Hazardous Materials*

The Immediate Priorities are:

1. To establish a task force to undertake, in the context of the National Policy on Natural Resources and the Environment, an evaluation of all existing environmental legislation and prepare draft enabling legislation for environmental protection.

The Medium Term Priorities are:

1. For mandated ministries and agencies, to review, and where necessary, to develop safe and enforceable standards and prepare guidelines for:
 - o the discharge of substances and materials (including noise) by mining or industrial operations into air and water and onto land and particularly into rivers, streams and groundwater from which human water supplies are obtained,
 - o the limits for the location of wells, boreholes and dams in the vicinity of sanitary landfill sites and shallow wells in human settlements,
 - o the safe handling and storage of toxic, hazardous and dangerous materials and waste, including the legal responsibility for training workers in such handling and storage,
 - o public hygiene in restaurants, hotels and other public places,
 - o safety and health in mining and other industrial operations and activities,
 - o solid domestic and industrial waste disposal in urban and peri-urban areas
 - o medical waste management and disposal,

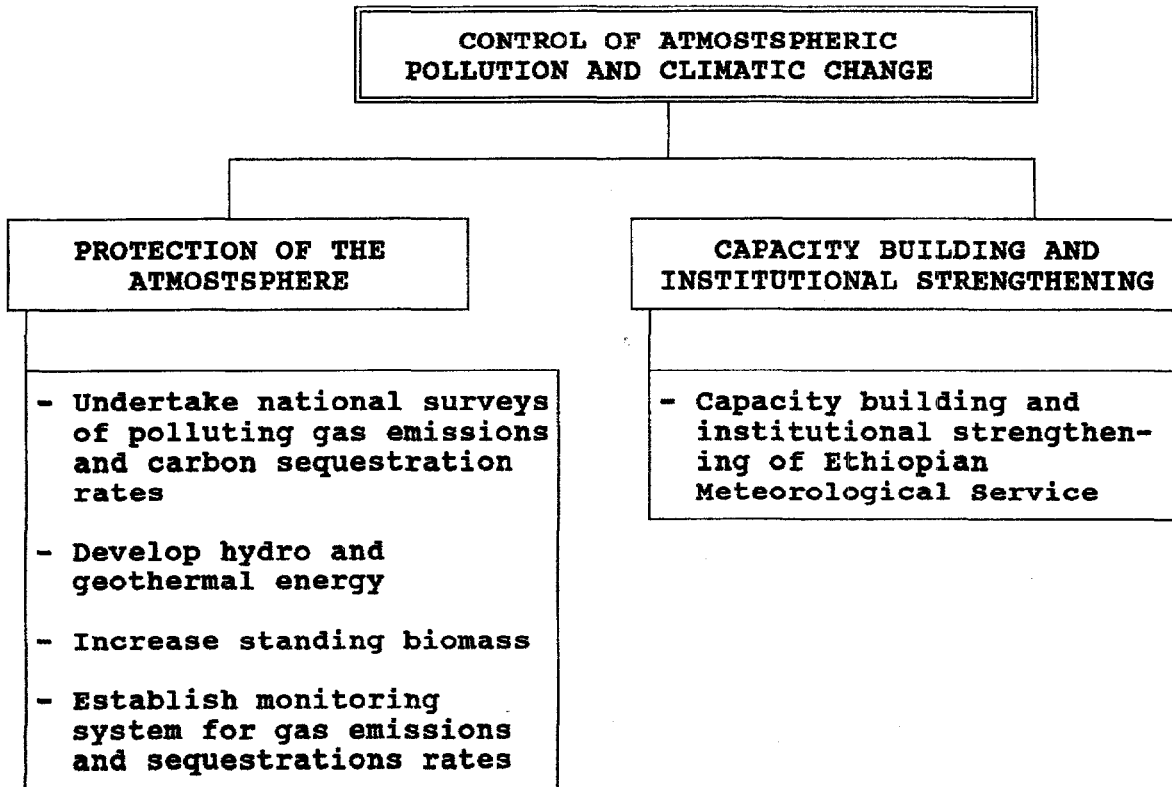
- o the labelling of the contents of industrially processed foods, drugs, cosmetics and other substances.
2. To incorporate these environmental standards into regulations under enabling environmental legislations.
 3. To establish and maintain a comprehensive system of environmental monitoring and environmental audits to ensure adherence to the regulations
 4. To review existing, and where necessary develop new, contingency plans and guidelines for environmental emergencies.
 5. To establish a national registration and control scheme for all toxic, hazardous and radio-active substances.
 6. To undertake an assessment of the risks to human and livestock health of all agro-chemicals and drugs currently under, and proposed for, distribution to farmers and pastoralists through state or private channels.

2. Capacity Building and Institutional Strengthening

The Immediate Priorities are:

1. To develop and implement a comprehensive programme of training and institutional strengthening for the National Environmental Protection Authority and other line ministries and agencies which have specific legal responsibility for establishing and monitoring environmental standards prescribed in the legislation and regulations.
2. To assist private and state sector industries and undertakings in the provision of information to, and the training of, managers and workforces in the safe storage, handling and disposal of toxic, hazardous and dangerous substances, in public hygiene and safety and in adherence to environmental standards as set by law.
3. To promote, through the agricultural extension service, appropriate methods of applying and using agro-chemicals and drugs, and the safe disposal of obsolete pesticides and herbicides and of pesticide and herbicide containers.

Programme XI. Programme Planning Framework: Control of Atmospheric Pollution and Climatic Change



Components:

- 1. Protection of the Atmosphere**
- 2. Capacity Building and Institutional Strengthening**

1. *Protection of the Atmosphere*

The Immediate Priorities are:

1. To undertake a national survey to determine the estimated annual emissions of greenhouse and other damaging gases into the atmosphere and the rates of carbon sequestration.

The Medium to Long Term Priorities are:

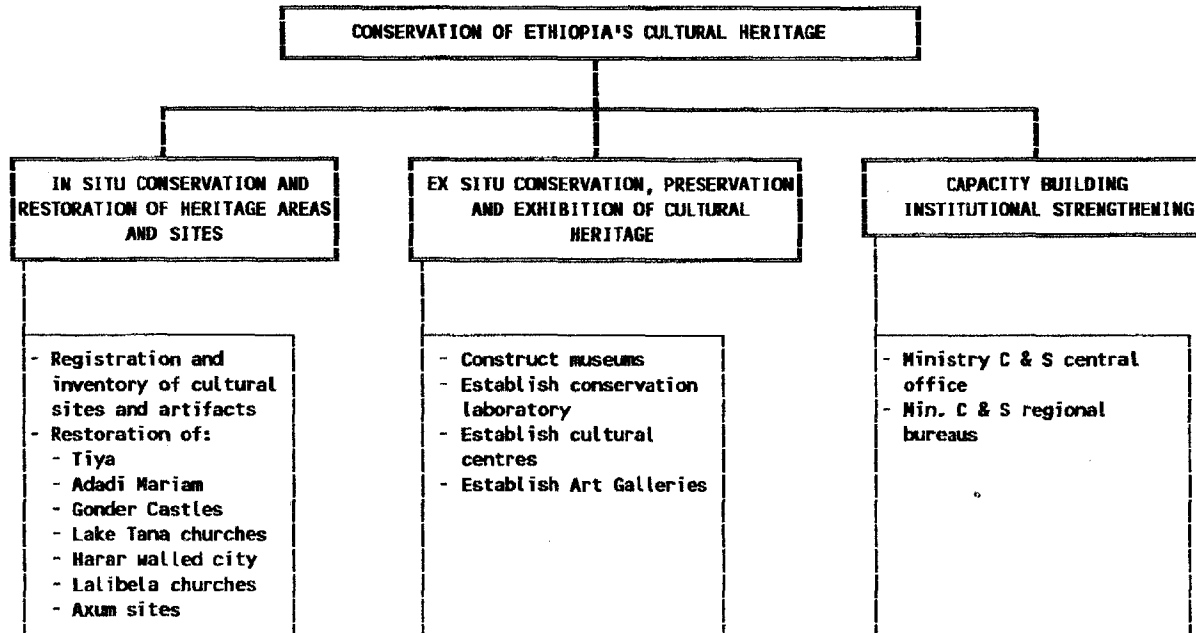
1. To increase the standing biomass in the country, particularly through the implementation of Sectoral programmes I, II, III and IV of the National Policy on Natural Resources and the Environment.
2. To develop hydro and geothermal energy generation through the implementation of Sectoral programme VII of the National Policy on Natural Resource and the Environment and the National Energy Master Plan.
3. To establish a monitoring system, through periodic national surveys on emissions of damaging gases and the stocks and rates of carbon sequestration, Ethiopia's adherence to the Convention on Climatic Change and to the Vienna Convention and its Protocols.

2. *Capacity Building and Institutional Strengthening*

The Immediate priorities are:

1. To provide technical assistance to enable the Ethiopian Meteorological Service to undertake the necessary surveys on emissions of damaging gases and the stocks and rates of carbon sequestration.

Programme Planning Framework: Conservation of Ethiopia's Cultural Heritage



**SECTORAL PROGRAMME XI
CONSERVATION OF THE CULTURAL HERITAGE**

Components:

- 1. In Situ Conservation and Restoration of Heritage Areas and Sites**
- 2. Ex Situ Conservation, Preservation and Exhibition of Cultural Heritage**
- 3. Capacity Building and Institutional Support**

- 1. In Situ Conservation and Restoration of Heritage Areas and Sites*

The Immediate Priorities are:

1. To make an inventory and register all cultural sites and objects at country-wide, regional and local levels as appropriate.

The Medium term Priorities are:

1. To restore the historic site of Tiya with the re-erection of some of the 46 stelae currently lying on the ground; the construction of a museum in local materials; and some landscaping.
2. To restore the historical castles of Gonder including Fasilide's Bath, Atatami Michael Church; and to undertake some archaeological research.
3. To restore 8 churches on islands in Lake Tana and provide appropriate repositories for the parchment manuscripts and items of ecclesiastical art.
4. To restore the walled town of Harer in particular its mixture of Ethiopian, Turkish, Egyptian, Indian and European architecture.
5. To restore the rock hewn churches of Lalibela, and to undertake a Master Plan study of Lalibela town, including vocational training, resettlement and sanitation programmes.
6. To restore the Axum historic sites including the stela field, Dengour Palace, Gudit stela field, King Keleb's tomb, Mariam Tsion church and Bazen's tomb,

to carry out archaeological work and to undertake a master plan study of Axum town, including vocational training, resettlement and sanitation programmes.

7. To undertake, with local participation and support, the restoration and construction of local protection works for all sites, structures and objects identified by local and regional administrations as being of heritage significance.

2. *Ex Situ Conservation, Preservation and Exhibition of Cultural Heritage*

The Medium Term Priorities are:

1. To construct 5 regional museums and 3 historic site museums at Axum, Lalibela and Lake Tana.
2. To construct an Art Gallery in Addis Ababa.
3. To construct cultural centres at various tourist attraction sites.

3. *Capacity Building and Institutional Support*

The Immediate Priority is:

1. To provide organisation and management training for the head office staff of MCS and institutional strengthening through the supply of selected equipment.

The Medium Term Priorities are:

1. To build the capacity of regional cultural and sport bureaus to undertake local restoration and conservation work by providing them with appropriate equipment and premises.
2. To assist local communities with technical support and materials to undertake local restoration and protection works for sites, structures and objects of local heritage significance.