

THE UNITED REPUBLIC OF TANZANIA

NATIONAL ENVIRONMENTAL POLICY

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NATIONAL ENVIRONMENTAL POLICY

CHAPTER ONE

INTRODUCTION

1. The word **Environment** commands a very broad meaning. It includes: air, land and water; plant and animal life including human life; the social, economic, recreational, cultural and aesthetic conditions and factors that influence the lives of human beings and their communities; buildings, structures, machines or other devices made by man; any solids, liquids, gases, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of man; and any part or combination of the foregoing and the inter-relationships between two or more of them.

2. The lives of all Tanzanians are intimately connected to the environment: our survival and that of our future generations depends on the harmonious relationship with the natural elements. Tanzanians have no choice but strive to manage the environment and its natural resources in ways that enhance the potential for growth and opportunity for sustainable development of present and future generations. Tanzanians do not have the luxury of ignoring the fundamental stresses at the interface of development and environment. Environmental problems are real and are not someone else's problem. A healthy economy and a healthy environment go hand-in hand. Both are needed for our survival and prosperity.

3. There is a clear cause-and-effect relationship between poverty and environmental degradation. Environmental degradation leads to widespread poverty; equally, poverty is an habitual cause of environmental degradation as it undermines people's capacity to manage resources wisely. Problems of underdevelopment such as poverty, ill health and others that plague the majority of Tanzanians are as much environmental as they are developmental. Environmental protection is therefore a social and economic necessity. It is an integral component of sustainable development. Correspondingly, sustainable development must be the central concept in environmental policy.

4. Satisfaction of basic needs is therefore an environmental concern of relevance to environmental policy. Investment in development is vital for environmental protection because the environment is the first victim of acute poverty, urban overcrowding, overgrazing, shrinkage

of arable land and desertification. Resource channelling must be targeted to address poverty-related environmental problems. It must aim at eradicating communicable diseases, guaranteeing food, shelter, safe water for all, employment and income generation in rural and urban areas, particularly to combat poverty.

5. Sustainable development means achieving a quality of life that can be maintained for many generations because it is socially desirable, economically viable and environmentally sustainable. Development is sustainable if it takes place within nature's tolerance limits, both in the short and in the longer-term perspective. The challenge for all Tanzanians is to recognise the various demands made upon their environment, and reconcile these in ways which seek to maintain and enhance it for the future. Equally the purpose of development is to improve the quality of human life. Development is sustainable if it adequately addresses poverty in its broader sense as a composite index of human deprivation, extending from command over economic resources, access to education, food, shelter and energy needs, to control of the physical environmental quality. The challenge for the Government is how issues of environmental sustainability can be mainstreamed into the core of national development policy-making.

6. Tanzania is committed to sustainable development through short, medium and long term social and economic growth. The Government is currently undertaking strategies aimed at strengthening the financial base of social services through cost recovery; enhanced community participation and improved delivery systems and management of supplies. The driving motive for economic and social change will put our country at an important crossroads, where difficult choices will have to be made in assessing trade-offs between short-term economic gains which foreclose future options, and the better based sustainable development goals. Both these choices have important economic, sociopolitical, ecological and ethical considerations. Given the increased role of the market and private sector, the role of the Government in steering social sectors in environmental management will have to be highlighted and pursued with the keenest interest. The Government will pursue explicit policy objectives which take into account these considerations.

7. Tanzania took an active part in the preparations for, and during the United Nations Conference on Environment and Development which enshrined the integration of environmental concerns and economic development in the Rio Declaration on Environment and Development, and Agenda 21. It is working closely with other countries in the Region and the International community to contribute towards a peaceful, healthier and better global environment for present

and future generations. Tanzania has become a party, and is implementing a number of global and Regional Environmental Treaties, as a basis for global and regional cooperation in the pursuit for sustainable development. It is host to important sub-regional programmes and projects conceived and implemented in concert with neighbouring countries, as a basis for harmonised management actions and approaches, and as a form of preventive diplomacy.

8. Agenda 21 stresses the need to move from a development model in which sectors act independently of each other, to a model in which there is integration across sectors, where decisions take into account intersectoral effects, to improve intersectoral coordination. This involves the integration of policies, plans and programmes of interacting sectors and interest groups to balance long-term and short-term needs in environment and development. It calls for a coherent policy where priorities can be defined for the promotion of long-term economic growth, creating incentives for sustainable utilisation of natural resources, disincentives for environmental pollution and degradation, and effective management of the overall environment.

9. For Tanzania, therefore, the role of Environmental policy lies in providing for the execution of a range of strategic functions, notably: -

- a. Development of consensual agreement at all levels for the challenge of making trade-offs and the right choices between immediate economic benefits to meet short-term and urgent development needs, and long-term sustainability benefits;
- b. Development of a unifying set of principles and objectives for integrated multisectoral approaches necessary in addressing the totality of the environment;
- c. Fostering Government-wide commitment to the integration of environmental concerns in the sectoral policies, strategies and investment decisions, and to the development and use of relevant policy instruments which can do the most to achieve this objective; and
- d. Creating the context for planning and coordination at a multisectoral level, to ensure a more systematic approach, focus and consistency, for the ever-increasing variety of players and intensify of environmental activity.

10. Since environmental policy involves many sectors and interest groups, its scope is necessarily broad, and the logistical demand for overseeing its implementation and ensuring coordinated attention to interconnected challenges is complex. The challenge is to ensure that all concerned take priority actions on all the main fronts; and that their actions are mutually supportive, reflecting a mission commonly subscribed to, by all. This means that the environment

must be subjected to greater accountability and control, with more effective instruments having clear objectives to be pursued. It means strengthening the functions of government and the corresponding institutions in environmental protection.

CHAPTER TWO

THE STATE OF THE ENVIRONMENT

11. The current state of the Tanzania environment is a matter of concern. A national analysis has identified six major problems for urgent attention. These are problems of: -

- i. land degradation;
- ii. lack of accessible, good quality water for both urban and rural inhabitants;
- iii. Environmental pollution;
- iv. loss of wildlife habitats and biodiversity;
- v. deterioration of aquatic systems; and
- vi. deforestation

Each of these is important to the economic well-being of the country and the health of the people.

12. To expand on the above problems, it is appreciated that: -

- i. land degradation is reducing the productivity of soils in many parts of Tanzania;
- ii. despite considerable national effort, over half the people in towns and in the countryside do not have access to good quality water for washing, cooking, drinking and bathing;
- iii. pollution in towns and the countryside is affecting the health of many people, and has lowered the productivity of the environment;
- iv. the loss of habitats for wildlife is threatening the national heritage and creating an uncertain future for the tourist industry;
- v. the productivity of lake, river, coastal and marine waters is threatened by pollution and poor management; and
- vi. Tanzania forest and woodland heritage is being reduced year by year through clearance for agriculture, for woodfuel and for other demands.

13. The reasons for the current deteriorating state of the national environment, include: inadequate land and water management at various management levels; inadequate financial and human resources; the inequitable terms of international trade; the particular vulnerable nature of some local environments; rapid growth of rural and urban population and inadequate institutional coordination. These factors together are creating undue pressures on natural resource systems.

Other important factors include inadequate monitoring and information systems, inadequate capacity to implement programmes, inadequate involvement of major stakeholders (eg, local communities, Non-Governmental Organisations, the private sector) in addressing environmental problems, inadequate integration of conservation measures in the planning and development of programmes.

14. These environmental problems have evolved over a long period of time, and are dispersed throughout the country. Although the costs relating to these problems cannot be quantified because of lack of data, the economic and social costs are high. It is understood that environmental degradation has had, and continues to have, adverse impact on the quality of human life and health.

15. A number of important measures have been initiated by the Government to promote political and economic change. Efforts are being made through economic reforms, to nudge the economic system towards a free market economy with increased role for the independent sector. The shift towards political pluralism, and the relinquishing by Government of the major sectors of the economy to the private sector will generate important indicators on how natural resources are used and managed, on the impact on the environment of the enlarged involvement of social groups in the development process, and on the nature of policy directions and investment decisions relating to the environment and natural resources. Clearly, increased investments in various sectors of the economy will bear impacts on these variables. The restructuring and adjustment of the economy, including macro-economic changes, will impact on the use and allocation of natural resources, and on the environment.

16. During this economic transformation the Government views the agricultural and the industrial sectors, particularly tourism, mining and transportation infrastructure as the main impetus to economic growth. The Government is aware that, by promoting agriculture as the engine of growth, the sector could also bring forth significant adverse impacts on natural resources and the environment, in turn undermining further agricultural growth. Expansion in agriculture could imply bringing more land into production from existing forests and woodlands, wildlife areas; draining wetlands; expanding irrigated agriculture, accompanied with salinization and water-logging; and/or increasing the use of agrochemicals, overdosing cropland soil and threatening the quality of surface and groundwater, etc. Likewise the Government is also aware that the necessary "big push" on tourism, industrialisation and infrastructure will have implications for the use of natural resources and the environment.

CHAPTER THREE

OVERALL POLICY OBJECTIVES

17. The policy document seeks to provide the framework for making fundamental changes that are needed to bring environmental considerations into the mainstream of decision making in Tanzania. It seeks to provide policy guidelines, plans and give guidance to the determination of priority actions, and provides for monitoring and regular review of policies, plans and programmes. It further provides for sectoral and cross-sectoral policy analysis in order to achieve compatibility among sectors and interest groups and exploit synergies among them.

18. The overall objectives of the National Environmental Policy are therefore the following:
- a. to ensure sustainability, security and equitable use of resources for meeting the basic needs of the present and future generations without degrading the environment or risking health or safety;
 - b. to prevent and control degradation of land, water, vegetation, and air which constitute our life support systems;
 - c. to conserve and enhance our natural and man-made heritage, including the biological diversity of the unique ecosystems of Tanzania;
 - d. to improve the condition and productivity of degraded areas including rural and urban settlements in order that all Tanzanians may live in safe, healthful, productive and aesthetically pleasing surroundings;
 - e. to raise public awareness and understanding of the essential linkages between environment and development, and to promote individual and community participation in environmental action;
 - f. to promote international cooperation on the environment agenda, and expand our participation and contribution to relevant bilateral, sub-regional, regional, and global organizations and programs, including implementation of Treaties.

SECTORAL AND CROSS-SECTORAL POLICIES

Cross-sectoral Policies

Addressing Poverty

19. Satisfaction of basic needs is an environmental concern of policy relevance. Investment in development is vital for environmental protection because the environment is the first victim of acute poverty, urban overcrowding, overgrazing, shrinkage of arable land and desiccation.

20. Therefore, environmental policy has two pronged focus: satisfaction of basic needs; and protecting the environment in the cause of development. Resource channelling shall be targeted to address poverty-related environmental problems. Strategic attention shall be directed towards eradicating communicable diseases; guaranteeing food, shelter, safe water for all, sustainable energy supply; as well as employment and income generation in rural and urban areas, particularly to combat poverty.

21. A proactive policy objective of natural resource conservation oriented towards the reduction of the vulnerability of the poor shall be pursued. Sectoral policies and programmes to address poverty eradication shall take due account of need for sustainable resource exploitation.

Demographic dynamics

22. Demographic factors and trends have a synergetic relationship with developmental and environmental issues. In any case, a rapidly growing population, even with very low levels of consumption per capita, implies increasing consumption in absolute terms. This affects the use of land, water, energy and other natural resources. The accompanying rapid increase in the number and size of urban centres also poses dramatic additional demands to the capacity to provide serviced land, shelter, infrastructure and employment.

23. In view of the multiple linkages involved, environmental policy objectives on population must have a broader focus than controlling numbers. Population programmes are more effective when implemented in the context of appropriate cross-sectoral policies.

24. Therefore, special emphasis should be placed on those policies that aim at multiple

objectives. Such policies are those that combine environmental concerns and population issues within a holistic view of development, and whose primary objectives include the alleviation of poverty; secure livelihoods; environmental sanitation and health improvement.

25. In particular, the following policy objectives on population shall be pursued: -

- (i) Population literacy programmes, both through the formal and non-formal education sectors, with special emphasis on linkages with primary environmental care, primary health care, basic shelter, food security, access to secure tenure and infrastructure;
- (ii) Generation of socio-demographic information, and mitigation of the direct and induced effects of demographic changes on the environment, with respect to critical resources such as land, water and ecosystem health, taking account of community needs;
- (iii) Promoting awareness of the critical role of women on population and environmental issues through increased access to education, and expanding primary and reproductive health care programmes to reduce maternal and infant mortality, taking account of culturally-based information that transmit reproductive health messages, and ethical and cultural values. Empowerment of women is essential, and could be assured through education, training and policies that accord and improve women's right and access to assets, labour-saving measures and job opportunities.

Land tenure

26. Resources which belong to everyone easily become the care of no one. The ownership of land and land resources, access to, and the right to use them are of fundamental importance, not only for a more balanced and equitable development, but also to the level of care accorded to the environment. It is only when people can satisfy their needs, have control of their resource base, and have secure tenure to land that the longer-term objectives of environmental protection can be satisfied.

27. Therefore, integrated land use planning, secure access to land resources, and the right to participate in decisions relating to their management shall be ensured.

Technology

28. Science and Technology have a central role in the exploitation, processing and utilisation of natural resources, and in the resulting environmental impacts. The technology used has a bearing in the quality of a product and in the type and amount of the resulting waste and emissions. Environmentally sound technologies in the context of pollution are "process and product technologies" that generate low or no waste, for the prevention of pollution. They also cover "end-of-the-pipe" technologies for treatment of pollution after it has been generated.

29. The primary policy objective shall be the promotion of the use environmentally sound technologies, that is, technologies that protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residue wastes in a more acceptable manner than the technologies for which they are substitutes.

30. The Principle of best-achievable environmentally sound technologies will be applied in all cases.

Biodiversity

31. Tanzania prides itself for having outstanding biodiversity due to diverse ecosystems, topography and climate. It is one of the fourteen biodiversity hot spot countries in the world. The need to exploit this rich biodiversity sustainably is recognised. This situation places a responsibility for undertaking biodiversity actions that meet both the competing requirements of the present and the legitimate claims of future generations.

32. For this purpose, actions shall be focused on information generation towards a comprehensive overview of Tanzania's biodiversity resources, their status and trends, and the costs and benefits of their conservation in order to provide basic understanding for the formulation of strategic interventions. Programmes for the conservation and utilisation of biological diversity shall be pursued to prevent and control the causes of significant reduction or loss of biological diversity. Strategic measures shall be put in place for the development of biotechnology, especially to ensure fair and equitable sharing of the results and benefits arising out of utilisation by foreign recipients, of genetic resources originating from Tanzania, and biosafety.

33. Biodiversity policies, strategies and programmes are only meaningful in relation to other

national policies, strategies and programmes. Therefore, policies, strategies and programmes for the conservation of biological diversity and sustainable use of biological and genetic resources shall be integrated into relevant sectoral/cross-sectoral policies, strategies and programmes.

Public Participation and Education

34. If sustainable development is truly to be our common goal, it must engage the interests and actions, not only of government experts, but of all Tanzanians in all walks of life. Environmental management must be everybody's responsibility. Everyone has the opportunity to make environmentally-responsible choices that can reduce or minimise their impacts on the environment and promote sustainable development. That responsibility can only be met through cooperative efforts at all levels of society. The actions of all Tanzanians as consumers and producers, as business operators and as policy-makers have an impact on the environment. While actions of one person or group alone may appear insignificant, those of twenty-five million Tanzanians do matter when combined at local, regional and national levels. The protection of the environment shall be the responsibility of each and every Tanzanian, just as the quality of the environment is a concern for each and all.

35. Environmental issues are best handled with the participation of all citizens at the relevant level. It is widely recognised that interventions which are likely to have positive impacts are those which enjoy the greatest support from grassroots. It is also recognised that ideal interventions are those that are based on the people's own initiatives, and for which solutions are geared towards felt needs, thereby diminishing the gap between theory and practice. Local level environmental action is in-situ, responds to specific needs which can change quickly, and is small. Environmental action by national institutions on the other hand is ex-situ, could be comparatively rigid, based in a large institution often in an urban setting, and is large scale. There is absolute necessity to exercise a bottom-up approach in problem identification, project planning, implementation and monitoring.

36. The major responsibilities of government institutions and non-governmental organisations at this level are to assist local communities become aware of their own situation and support them to become responsible for their own destiny. Local communities will participate if they are persuaded that it is right and necessary to do so; when they have sufficient incentive, and the required knowledge and skills. Environmental education and awareness raising programmes shall

be undertaken in order to promote informed opinion.

37. Introduction of environmental education, particularly in primary and secondary school curricula creates an enduring awareness by inculcating values that support responsible environmental care and discourage attitudes that are incompatible with sustainable ways of life. This shall be undertaken.

38. Critical to the effective implementation of the policy objectives therefore will be the commitment and genuine involvement of all institutions and sectors of society. Formal and informal organisations in society, as well as grass-roots movements are partners in the implementation of Environmental policy objectives. The fundamental prerequisites for achievement of sustainable development is broad public participation in decision-making, including the participation of individuals, groups and organisations in environmental impact assessment issues and in decisions, particularly those which potentially affect the communities in which they live and work.

39. Sustainable management of environmental resources and the need to continuously anticipate emerging challenges requires availability of timely, up to date and accurate information. Generation, assembly and dissemination of information related to environmental management shall be ensured.

The Private Sector and NGOs

40. The roles of non-State actors are vital in the shaping and implementation of participatory democracy. Non-Governmental Organisations possess diverse experience, expertise and capacity in fields relevant to the implementation of environmental objectives. The nature and the independent role they play is a major attribute and precondition of real participation.

41. The private sector, particularly within business and industry can play a major role in reducing the stress on resource use and the environment. There is increasing recognition that production, technological and management approaches that use resources inefficiently form residues which are not reused, discharge wastes that have adverse impacts on human health and the environment, and manufacture products that when used have further impacts and are difficult

to recycle. Improvement of production systems through technologies and processes that utilise resources more efficiently and at the same time generate less waste; that reclaim, recycle and re-use by-products, to a very large extent is within the province of business and industry. By striving for optimal efficiencies at every stage of the product life cycle, good engineering and management practices and know-how; implementing self-regulations; and assuming greater responsibility in ensuring that their activities have minimal impacts on human health and the environment, Business and Industry can achieve more for environmental objectives with fewer resources.

42. The private sector, and the community of Non-governmental organisations therefore offer a national network that should be tapped, enabled and strengthened in support of efforts to achieve environmental objectives. In order to ensure that the full potential contribution of the private sector and Non-governmental organisations is realised, the fullest possible communication and cooperation between them and national and local authorities, and all institutions mandated to execute environmental objectives must be pursued. The private sector and Non-governmental organisations will also need to foster cooperation and communication between and among themselves to reinforce their effectiveness as major players in environmental activities. In order to achieve this objective they will need to establish their own mechanisms of cooperative networks to facilitate sharing of experiences and expertise for the planning, design and implementation of environmental programmes at national, regional, district and community levels.

The Enhanced Role of Women

43. Women are the natural resource managers in our society. Their knowledge, experience, and traditional skills in the management of resource stocks and households should be tapped for increased environmental action. The role of women in environmentally-related activities will be recognised and promoted with a view to achieving increased women's involvement and integration in all environmental management areas.

44. Empowerment of women is a critical factor in the eradication of poverty and effective participation of women in environmental activities. In so far as the productive potential of women is impaired by the disproportionate burden they bear in the management of household consumption and production, on account of gender division of labour, emphasis shall be placed on addressing the structural causes of poverty and reducing gender-based inequality within the

overall framework of achieving environmentally sound development. Such emphasis shall focus on literacy of women as a key element for the improvement of health, nutrition and education in the family, and for empowering women to participate in decision-making in society; as well as in anti-poverty programmes such as employment schemes and credit facilities for women, among other measures.

Sectoral Policies

45. Environmental impacts of actions in one sector are often felt in other sectors. This is why environmental goals, objectives and actions cannot be understood and framed in isolation from the development and policy sectors in which they emanate. Internalization of environmental considerations in sectoral policies and programmes, and their coordination is essential to achieve sustainable development.

Agriculture

46. The main objective is to ensure food security and eradication of rural poverty through the promotion of production systems, technologies and practices that are environmentally sound. The following specific policy objectives shall be pursued: -

- (a) Improvement of land husbandry through soil erosion control and soil fertility improvement;
- (b) Intensification and diversification of agricultural production;
- (c) Minimization of encroachment in public lands including forests, woodlands, wetlands and pastures;
- (d) Strengthening of environmentally sound use, monitoring, registration and management of agrochemicals;
- (e) Control of agricultural run-offs of agrochemicals to minimize pollution of both surface and ground water;
- (f) Promotion of mixed farming, to intensify biological processes on farmlands through multiple cropping, intercropping, crop rotation and agroforestry;
- (g) Improvement in water use efficiency in irrigation, including control of water logging and salinization;
- (h) Intensification of wild and domesticated plant genetic conservation programmes; and
- (i) Promotion of integrated and holistic approaches through land use planning and

management.

Livestock

47. The main objective of the livestock sector is to stimulate development of livestock industry in the country taking due regard of the environment. In order to ensure sustainable livestock industry development, the following policy objectives shall be pursued: -

- (a) development and application of environmentally friendly tse-tse fly control methods;
- (b) improvement and conservation of grazing lands and preservation of feed resources (promotion of planting of fodder crops, establishment of fodder banks, and stall feeding);
- (c) Promotion of mechanisms for resolving conflicts among different land use interests (wildlife protection, forestry, pastoralism and agriculture);
- (d) restoration and protection of grazing lands, and promotion of rotational grazing;
- (e) management and control of the migration of livestock; and
- (f) implementation of animal genetic resource conservation programmes.

Water and Sanitation

48. The environmental objective in the Water, Sewerage and Sanitation sector is to support the overall national objective of providing clean and safe drinking water to within easy reach, to satisfy other water needs, to protect water sources and to prevent environmental pollution. In order to achieve this, the following policy objectives shall be pursued:-

- (i) planning and implementation of water resources and other development programmes in an integrated manner and in ways that protect water catchment areas and their vegetation cover;
- (ii) improved management and conservation of wetlands;
- (iii) promotion of technology for efficient and safe water use, particularly for water and waste water treatment, and recycling; and
- (iv) institution of appropriate user-charges that reflect the full value of water resources.

49. In respect of marine and coastal waters the policy objective is the prevention, reduction and control of pollution of the marine and coastal waters, including that from land-based sources of pollution.

Health

50. The main objective here is to protect public health, not in the narrow though indispensable sense of curing diseases, but in the broad sense of promoting human well-being and informed participation in primary environmental care. The policy objectives to be pursued are: -

- (i) provision of community needs for environmental infrastructure, such as safe and efficient water supplies, sewage treatment and waste disposal services; and
- (ii) promotion of other health-related programmes such as food hygiene, separation of toxic/hazardous wastes and pollution control at the household level.

Transport

51. The transport sector shall focus on the following environmental objectives:-

- (i) improvement in mass transport systems to reduce fuel consumption, traffic congestion and pollution;
- (ii) control and minimisation of transport emission gases, noise, dust and particulates; and
- (iii) disaster/spill prevention and response plans and standards shall be formulated for transportation of hazardous/dangerous materials.

Energy

52. The main objective is the sound management of the impacts of energy development and use in order to minimise environmental degradation. The policy objectives to be pursued are: -

- (i) minimization of woodfuel consumption through the development of alternative energy sources and woodfuel energy efficiency;
- (ii) promotion of sustainable renewable energy resources;
- (iii) assessment and control of development and use of energy; and
- (iv) energy efficiency and conservation.

Mining

53. The policy objective from an environmental perspective is the prevention, reduction, control and elimination of damage, and minimization of the risk thereof from the generation, management, transportation, handling and disposal of hazardous wastes, other wastes and emissions.

54. Much of the mining done in Tanzania is artisanal and large concentrations of these small scale miners are found in gold-bearing areas. Large scale mining is also on the increase. The problem here is the use of mercury which pollutes water sources and is dangerous to health on account of its adverse effects on the human nervous system. The following policies shall be undertaken to minimise pollution arising from the mining sector:-

- (i) overall project cycle of mining (including reclamation and restoration of land after use) shall be adequately managed to minimize adverse environmental impacts;
- (ii) mining discharges to grounds and water shall be controlled;
- (iii) preventive and clean up measures for accidents shall be formulated and implemented;
- (iv) air pollution from mining areas shall be controlled.
- (v) strict regulations shall be put in place to control the use of mercury in mining activities, use of retorts will be promoted; and
- (vi) regular and periodic environmental audits shall be maintained to ensure the adoption of environmentally sound practices in mining operations.

Human Settlements

55. Urbanisation is the major issue in the transformation of human settlements. A major and growing portion of Tanzania's population will soon be located in urban areas. Urban centres are more and more subject to dramatic crisis; poverty, environmental decline, inadequate urban services, deterioration of existing services and access to serviced land and shelter are deprivations of increasing severity. The following policy objectives shall be pursued:-

- (i) integrated planning and improved management of urban centres and designation of urban land uses based on environmental impact considerations;
- (ii) decentralisation of urban development through the promotion of intermediate towns and trade centres, on the basis of a human settlement perspective plan at national, regional and district levels;
- (iii) development of gardens, parks, open spaces in urban centres for public use; greenbelts with pollution tolerant species; and more generally, planting of shade-giving and fruit-bearing as well as ornamental trees along urban roads, school compounds, hospitals, government and private office building compounds, peripheries of play grounds, water bodies, places of worship, assemblies, markets, etc;

- (iv) control of indiscriminate urban development, particularly in vulnerable sites such as coastal beaches, flood-prone and hilly areas;
- (v) promotion of resource-based strategies in the planning and development of human settlements; and
- (vi) development of environmentally sound waste management systems especially for urban areas.

Industry

56. The policy objective with respect to environmental protection is the prevention, reduction, control and limitation of damage, and minimisation of the risk from the generation, management, transportation, handling and disposal of hazardous wastes, other wastes and emissions. The following policy objectives shall be pursued;

- (i) industries shall be planned in a manner that minimizes adverse effects on the environment at all stages (i.e. location, effluent discharge, waste disposal, use and disposal of products);
- (ii) industrial emissions shall be controlled;
- (iii) application of environmental impact assessment (EIA) as an essential element in industrial planning and development for taking account of potentially harmful activities on the environment;
- (iv) environmental audits/inventory shall be carried out for both new and existing industries for pollution control and waste minimisation;
- (v) installation of resource-saving and waste-recycling facilities, use of clean technology and production of safe and less toxic products shall be promoted and supported;
- (vi) workers health shall be adequately protected from environmental health hazards;
- (vii) a review will be made of laws, rules, and regulations governing importation, manufacture, transportation, handling, use, storage and disposal of toxic chemicals, and dangerous products, hazardous wastes and hazardous substances, as appropriate;
- (viii) permissible noise levels in noise-prone industries and construction sites will be prescribed.

Tourism

57. Tourism development will be promoted based on careful assessment of the carrying capacity and prior Environmental Impact Assessment application. Environmentally friendly

tourism (ecotourism) and diversification of tourism activities will be promoted, e.g. conservation and promotion of cultural heritage sites, in order to decrease pressures on heavily impacted areas. Financial benefits from tourism activities shall accrue in part to the local community to motivate them in conservation of tourism resources.

Wildlife

58. Wildlife resources shall be protected and utilized in a sustainable manner on the basis of careful assessment of natural heritage in flora and fauna fragile ecosystems, sites under pressure and endangered species, with participation of, and benefits to, the local communities. Environmentally adverse impacts of development projects in wildlife conservation areas (e.g. tourist hotels, rail construction) will be minimized by EIA studies. Game ranching and captivity breeding for certain species will be encouraged.

Forestry

59. The main objective is the development of sustainable regimes for soil conservation and forest protection, taking into account the close links between desertification, deforestation, freshwater availability, climate change and biological diversity. The following policy objectives shall be pursued: -

- (i) rational exploitation of forest resources accompanied with reforestation and afforestation programmes shall be promoted and enforced to meet requirements of domestic consumption and export earnings in a sustainable manner;
- (ii) forest/tree cover shall be increased through afforestation;
- (iii) proper management and law enforcement shall be practised for all public lands;
- (iv) natural forest with biological diversity value and genetic resources shall be conserved; account will be taken of the dangers of monoculture and to the extent possible natural forests will not be replaced by exotic species; and
- (v) farmers, business communities, non-governmental organizations (NGOs), schools and others will be motivated to embark on tree planting. Financial and other incentives will be encouraged.

Fisheries

60. In order to preserve the environment and at the same time, provide nutrition to the people

and enhance their income from fish sales, the following policy objectives shall be pursued: -

- (i) fisheries shall be developed in a sustainable manner, by using appropriate fishing gear and processing methods;
- (ii) destructive fishing and processing methods shall be controlled by regulation and support i.e making available appropriate fishing gear at affordable prices for fishermen; specifically, dynamite fishing and the use of poisonous chemicals in fishing shall be severely combated.
- (iii) alternative fish processing methods shall be promoted to avoid deforestation due to fish smoking;
- (v) on the basis of stock assessment, fish stocks shall be conserved to maximize sustainable yield;
- (vi) introduction of non-indigenous species, shall be controlled;
- (vii) post harvest losses will be reduced through improved processing and preservation techniques;
- (viii) fragile ecosystems and endangered species will be protected through proper fisheries management, mitigation/prevention of coastal and waterways degradation, and control of industrial pollution; and
- (ix) integrated fish farming methods and other environmentally beneficial means of tapping the productivity of the environment through fish farming shall be pursued.

CHAPTER FOUR

INSTRUMENTS FOR ENVIRONMENTAL POLICY

61. The environment is both a natural and a cultural heritage. It is appreciated that indigenous knowledge and culture have helped in the protection of the environment in the past. The present and future generations, therefore, can benefit from this knowledge.

62. Achievement of proposed policy objectives on the above sectoral and cross-sectoral environmental concerns suggests the use of the most effective means. Such means must ensure that the exploitation of natural resources, the direction of investment and the orientation of technological development are all in harmony and enhance both the current and future potential to satisfy human needs and aspirations. In their combined effect, effective policy instruments must promote these important aims, namely; anticipatory and preventive responses rather than reactive responses; voluntary compliance as a first resort; economic growth objectives and environmental objectives which are mutually supportive; and long-term and short-term objectives which are reconciled. The following are considered priority policy instruments.

Environmental Impact Assessment

63. Although it is important to tackle immediate environmental problems, precautionary, anticipatory and preventive approaches are the most effective and economical measures in achieving environmentally sound development. Successful implementation of the Environmental Policy requires the optimisation of goal achievement both within and across sectors.

64. In practical terms this requires finding the right balance between natural processes and unavoidable human interventions. Allowance can be made for human intervention only if we know before hand what impact it will have. A great deal of unnecessary damage and loss can be avoided by creating a degree of harmony between man-made interventions and natural laws. This adaptive process of trade-offs requires agreement amongst many sectors and interest groups.

65. It is in the context of an Environmental Impact Assessment (EIA) regime that policy guidance on choices to maximise long-term benefits of development and environmental objectives

can be revealed and decided upon. EIA as a planning tool shall be used to integrate environmental considerations in the decision-making process, in order to ensure that unnecessary damage to the environment is avoided. It shall be a mandatory requirement to ensure that environmental concerns receive due and balanced consideration in reconciling urgent development needs and long-term sustainability, before a final decision is made. In this way, environmental considerations will not become an afterthought in planning and decision-making, but rather, part of our consciousness and awareness of our development realities.

66 As part of the strategy in the implementation of the National Environmental Policy, guidelines and specific criteria for the conduct of EIA will be formulated. One of the cornerstones of the EIA process will be the institution of public consultations and public hearings in the EIA procedures.

67 Environmental degradation many times arises out of the promulgation and implementation of bad sectoral and macro policies. In order to mitigate the effects of existing and future policies on the environment, strategic environmental impact assessment will be applied on those policies which impact on the environment.

Environmental Legislation

68 Environmental law is an essential component of effective environmental management and improvement of the quality of life. The inherent nature of environmental law to set demands, impose duties and limits and create obligations for the individual for private and public bodies means that it can make a clear contribution to fit human activities into laws that govern the patterns of our air, water, soils and plant and animal life.

69 The broad range of areas covered under the field of environment, the structure and division of Government functions, and the numerous number of major players necessitate the formulation of a framework environmental legislation and a related set of sectoral legislations to provide the legal basis for effective and comprehensive environmental management.

70 The framework environmental legislation shall be designed to organise various agencies of Government charged with aspects of environmental protection to promote coordination and

cooperation among them, and shall define environmental management tools of general scope that facilitate an even degree of policing and enforcement. Sectoral legislations shall be designed in such a way as to factor environmental policy objectives in their areas of coverage.

71 It is recognised that for effectiveness, environmental law must be understood and appreciated by the people to whom it is aimed. It is therefore stressed that other instruments like public education and public awareness are essential and complementary policy instruments. Furthermore environmental standards and procedures have to be in place before or as a result of legislation for this instrument to be effective.

72 Tanzania is a signatory and has acceded to a number of International Treaties on environment. A review of these Treaties will be made with a view to incorporating them into national legislation.

Economic Instruments

73 The market place does not yet provide decision-makers, producers and consumers with appropriate signals about the value of the environment because most environmental resources and services are either undervalued or considered as common property. A balanced use of regulations and suitable market-based approaches for environmental protection can form a sound basis for sending out "green signals". The most important advantage of economic instruments is their ability to achieve a specified level of environmental protection at lower cost, particularly where they are designed to match the cost of achieving a predetermined and tangible environmental goal. Economic instruments are also able to take into account the reality that the cost of controlling a particular environmental problem may not be the same for all causes.

74 Resource prices are themselves economic instruments that can play a critical role in encouraging efficient and environmentally responsible management of natural resources, and influence users to act in ways consistent with sound economic and environmental values. User-charges are applicable for the use of collective goods and services, and are practised in the country. Ideally, the charge should match the cost of supplying the service consumed, so that consumers have an incentive not to over-use the service or abuse it.

75 While economic instruments are not necessarily the most effective means of choice for every environmental problem, their application can be linked to specific environmental problems, so that they are made relevant in their design and application to the problems. Already, deposit-refund schemes are practised in Tanzania primarily to encourage the return of beverage containers, and shall be used for other products which can be recycled or recovered, and which create environmental problems if not disposed of in an acceptable manner, such as acid batteries and oils, or plastics with long life cycles.

76 As far as possible the preventive approach to environmental problems shall be given top priority. Liability for environmental pollution shall not be passed on. The polluter-pays principle shall be adopted and implemented deterrently. In principle it shall be the responsibility of those who pollute to repair and bear the costs of pollution caused and rehabilitation, where appropriate.

Environmental Standards and Indicators

77 Sustaining life of all forms is a question of balance. There are finite limits to the carrying capacity of ecosystems, that is, to the impacts that they, and the environment in general can withstand without dangerous deterioration. The limits vary with each ecological setting and from locality to locality; and the scale and severity of impacts depend on the intensity of human activities, such as how much food, water, energy and raw materials are exploited, and wastes disposed.

78 Policies that bring human activities into balance with nature's carrying capacity, as well as technologies and practices that enhance that capacity through careful management form a sound basis for sustainable development.

79 Making timely and sound policies decisions requires relevant, valid and reliable environmental criteria reflecting the degree of acceptable stress on the environment. Environmental standards and indicators are necessary management tools for providing early warning relating to potential environmental problems to carrying or assimilative capacities of environmental media and to habitat quality. Environmental indicators shall be defined, for example on land use conversion ratios (rural/urban, wetland/agriculture, forest/agriculture, etc) to make possible determination of ecosystems stability/resiliency/diversity relationships, and evaluation of

economic development strategies affecting natural resources. Appropriate environmental indicators and standards shall be formulated and their implementation monitored to satisfy different objectives, including: -

1. to make accessible statistical, scientific and technical information to non-technical user groups;
2. descriptive indicators summarising sets of individual measurements pertaining to an issue, mainly to serve scientific purposes; and
3. aggregated, policy-oriented indicators, derived from analysis and integration of information of different disciplines to contribute to policy decision-making.

80 As part of strategy formulation, decisions shall be made on what components of the environment require the setting of indicators, and on the degree of the state of environmental reporting necessary. The role of scientific data in determining sustainable thresholds shall be promoted.

Precautionary Approach

81 On the ground that knowledge of the effects of environmental impacts may often be incomplete, and that some impacts only give demonstrable effects after a long time, application of a precautionary principle, i.e. it is better to **be roughly right in time**, than to **be precisely right too late**, shall be pursued. This means that in certain cases action may be taken to protect and enhance environmental integrity even without complete knowledge of the causes and effects involved, or without waiting for more substantial proof of damage.

International Cooperation

82 Environmental problems do not recognize national boundaries of sovereignty. Any policy on the environment is a policy only on the basis of effective forms of international cooperation which take into account both ecological relationships on regional and global scales, and the interdependence of the world economy. Virtually no part of the world can claim immunity from natural disasters and man-made abuses of the environment. Global and transboundary resources, especially the atmosphere, the ocean and shared ecosystems can be managed effectively only on the basis of a common purpose and resolve, when all affected countries are part of the solution.

83 Thus, for example Tanzania's coastal and marine pollution can be addressed more fully and effectively through regional cooperation. In many cases, some international framework is necessary to address transboundary environmental problems. Tanzania will intensify its cooperation with other countries of the subregion, region and the world at large.

84 The earth's atmosphere is not confined within national boundaries. The protection of the atmosphere must therefore be a global effort. International efforts at the protection of the atmosphere have so far consisted of the Vienna Convention on the Protection of the Ozone Layer and its Montreal Protocol and the United Nations Framework Convention on Climate Change which largely addresses the emissions of greenhouse gases in the atmosphere which have an impact on climate change. Global, regional and national efforts should be made towards ratification and implementation of these Conventions.

85 The need to undertake climate studies in order to come up with mitigation options is stressed. In view of Tanzanian's vulnerability to climate variations, an assessment of impacts of climate change and climate variations will be undertaken. In this regard strategies will be evolved to ensure that options which are pursued do not unduly sacrifice national development endeavors.

CHAPTER FIVE

INSTITUTIONAL ARRANGEMENT

86 The multi-focus approach so central to environmental management and to the integration of environment and development concerns implies the need for effective coordination and cooperation among relevant organs of Government. It is imperative to recognize existing institutional mechanisms, and consider ways and means by which coordination of, and cooperation between institutionally distinct bodies with overlapping mandates might be enhanced, and their purpose and functions constructively aligned.

87 The cabinet constitutes the paramount permanent coordination and policy committee in which Ministries communicate their policy goals, plans and priorities.

MINISTRY RESPONSIBLE FOR ENVIRONMENT

88 The Ministry responsible for environment, as the authoritative voice and catalyst for action on behalf of the entire Government, shall exercise overall policy, planning and implementation oversight mandate on environmental matters. It shall be the source of overall policy guidance and advice on the development of strategic environmental vision, including formulation, analysis and appraisal of broad environmental policy, as well as formulation and review of broad environmental goals, in conformity with such vision. The Ministry shall provide the basis for a broad political legitimacy for the administration of strategic policy decisions on a routine and continuous basis for coordinated environmental management.

89 In order to achieve relevance and credibility as an environmental agenda-setter, the Ministry responsible for Environment shall provide timely and substantive policy positions, representing a powerful collective voice for ensuring that Government's perspective on the environment is conveyed in a timely and compelling manner. Its strength shall lie primarily in providing leadership in environmental policy, environmental planning and coordination, and in influencing and facilitating action to protect and improve the environment. This means that the Ministry responsible for Environment shall stay at the cutting edge of environmental issues;

providing information, advice and guidance; building consensus; identifying emerging issues; exploring unintended facets of known issues; and in setting the agenda for improved environmental management.

90 With this pre-eminent role, the Ministry responsible for environment, as the policy guidance institution, shall exercise oversight mandate for the implementation of policies under the jurisdiction of line ministries in fulfilment of their delegated authority, shall support and influence sector Ministries in carrying out their mandates, and shall assert due political influence on the strategic direction, sufficient to set their environmental agenda, for this objective. It shall be responsible for identifying and assessing strategic environmental concerns and key issues, inducing their resolution through a combination of mutually reinforcing actions by various institutions, and broadening consensus for the adoption of harmonised priorities.

91 The Division of Environment, as the working level cell of the Ministry responsible for Environment, shall provide policy and technical back-up, and execute the oversight mandate of the Ministry, as required. The Division shall undertake policy analysis; develop policy choices to influence decision-making; coordinate broad-based environmental programmes, plans and projects which go beyond single sector approaches; and facilitate meaningful involvement of civil society to broaden consensus and reduce insularity. In order to achieve this objective the Division of Environment shall promote the use of inter-agency coordination processes under the auspices of the Ministry responsible for Environment, as well as under the auspices of relevant Government departments and other major actors for the primary purpose of sharing information and expertise, and ensuring that national policies and actions relating to the environment reflect the best scientific advice and broad social consensus.

92 In addressing environmental concerns, several issues are strongly linked; they can not be dealt with effectively, one by one. Solutions call for a combination of mutually reinforcing actions; and actions are required on many fronts by many actors. In order to implement environmental objectives in an even way, and to ensure systematic and consistent environmental administration, the Division of Environment shall develop basic management tools, such as guidelines and criteria for Environmental Impact Assessment; Environmental Standards; National Action Plans, Strategies and Programmes; etc. This will provide the means to address the scope

and pursuit of national environmental agenda proactively and deliberately, and the opportunity to pay more attention to the integrated nature of the environment.

93 These strategic functions of the Ministry responsible for Environment form the basis for effective inter-ministerial cooperation and coordination, and shall be reflected in a framework Environmental legislation, and in relevant sectoral legislations.

LEAD MINISTRIES

94 Since environmental management is a multi-sectoral, multi-disciplinary undertaking, its success depends on the cooperation of Government agencies responsible for various aspects of environment. The bulk of operational functions for environmental management such as public health, sewage disposal and water pollution control is carried out by Government departments of the relevant sector Ministries at the national, regional and local levels. The distribution of relevant Government responsibilities is typically based on subject matter; the legal and management systems of the Government are sectoral. Correspondingly, the existing parental authorities governing particular sectors have developed their own substantial technical infrastructure and expertise in their limitations of competence.

95 Therefore, sector Ministries represent the critical constituency of the Ministry responsible for Environment and must have an informed voice and commitment to environmental outcomes. Effective implementation of Government objectives on the environment will only be possible where Ministries with roles relevant to the environment are enjoined to coordinate their activities, and synchronise their rules and regulations in the service of a comprehensive environmental management.

96 Pockets of environmental activity found in each Ministry shall constitute the basis of more intensive, more effective environmental management. In order to implement Government objectives on environment in an even way, sector Ministries shall be endowed with the proper legislative tools appropriate to the kind of work that devolve upon them, with well-delineated sphere of supervisory powers.

ADVISORY BODIES

97 The formulation and implementation of environmental policy, environmental planning and coordination must be based upon a reliable information base, and continuous assessment of new information, as well as monitoring and assessment of the effectiveness of actions taken. This requires substantial data and information for incorporation in policy-shaping, and for the development of effective management and technical solutions to environmental problems.

98 Environmental field research, and the development of data bases and monitoring systems represent a crucial factor for providing constant and timely feedback for decision-making, from long-term projections to rapid guidance in emergency situations.

99 Advisory bodies charged with the enhancement of targeted scientific research and information generation in the field of environment, and for monitoring and assessment of the effectiveness of actions taken shall be established and/or designated.

National Environment Management Council (NEMC)

100 The National Environment Management Council shall retain its advisory role. It shall enforce pollution control and perform the technical arbitration role in the undertaking of Environmental Impact Assessment.

LOCAL AUTHORITIES

101 Local authorities represent the most powerful tier of Government. They provide the most accessible channels for people to express their concerns and take action to create sustainable conditions. Since so many of the environmental problems and solutions have their roots in local activities, Local authorities are a determining factor in fulfilling environmental policy objectives. Local authorities are responsible for constructing, operating and maintaining economic, social and environmental infrastructure.

102 Local authorities shall be responsible for overseeing planning processes, and for establishing local environmental policies and regulations. At the level of governance closest to the

people, local authorities are best placed to play the vital role of educating, mobilising and responding to their public to promote environmental objectives. Their role as environmental authorities in their areas of jurisdiction shall be enhanced.

COMMITTEES ON THE ENVIRONMENT

103 There shall be a Policy Committee on the Environment at the Regional level, composed of District Commissioners within the Region and chaired by the Regional Commissioner. This Committee shall deal with matters of regional interest affecting the environment; and shall provide policy guidance or propose policy measures and actions.

104 The work of the Regional Policy Committee on the Environment shall be facilitated by District, Ward and Village Committees on the Environment under the auspices of District, Ward and Village Councils, respectively. These Committees shall be responsible for coordinating and advising on obstacles to the implementation of environmental policy and programmes; promoting environmental awareness; information generation, assembly and dissemination on the environment relating to the district, ward or village.

INSTITUTIONAL CAPACITY-BUILDING

105 Greater institutional capacity is a prerequisite for the conception, planning and management of appropriate policy proposals, policy analysis and the formulation of strategic policy decisions. Likewise, the capacity to assess and articulate needs, form networks and create partnerships, and develop technical and management solutions in a field with diverse issues and interests as the environment, require substantial expertise.

106 Detailed knowledge of a local environment can not be imported at will. Management of any major component of the environment requires the capacity to analyse data and information, to generate policy options and design management measures based on the best data available, and apply and enforce them.

107 Both adequate facilities and trained personnel must be made available to realise these objectives. Building capacity for the development of general competence is inherently a lengthy process; it takes time to train an appropriate cadre of professionals, and even longer for them to acquire mature experience. More generally, human resource development will be a priority at all levels - the general public, NGOs, public officials, technical and scientific staff.

108 Particular attention will also need to be paid to the establishment and strengthening of institutions responsible for systematic monitoring of the state of the environment to cover for environmental information gaps. Presently, linkage of environmental degradation, loss of economic opportunity and deterioration of human health to causative factors is not made explicit on account of such information gaps. Although monitoring networks exist for meteorological measurements for temperature, rainfall, humidity and solar radiation, there are no regular measurements for more specific environmental planning purposes such as water pollution by industries and sewage discharge, or air pollution. Existing monitoring activities in the field of environment are project-oriented, with specific short-lived deadlines. This means that they are limited in spatial coverage, and are not regularly updated from time to time.