

## **NATIONAL ENVIRONMENTAL POLICY**

### **SECTION A**

#### **1.0 INTRODUCTION**

Ghana is endowed with abundant natural resources, which have played very important roles in the agricultural, industrial, economic and social development efforts of the country. However, as a result of incessant exploitation of these natural resources to meet the legitimate socio-economic aspirations of the people, adequate care has often not been taken to guard against the depletion and mis-management of the resources. Consequently, this process of unsustainable development has caused irreparable damage resulting in deforestation, land degradation, air and water pollution, soil erosion, overgrazing, and destruction of bio-diversity among others.

Successive governments and people of Ghana have come to realize that the process of democratic governance can only be guaranteed if it is based on a sound socio-economic framework that is environmentally sustainable. The conservation of resources by all Ghanaians is therefore crucial to our survival as a country. Consequently conservation and sustainable use of these environmental resources and their protection depends on attitudinal and behavioral change by all individuals, households and private and public sector institutions.

These tenets were embedded in Ghana's first Environmental Policy enacted in 1995. This Policy was based on a broad vision founded on and directed by respect for all relevant principles and themes of environment and sustainable development.

Since then, it has become obvious that environment degradation is not only a function of failing world markets and poverty but also of institutional shortcomings at the household, district, regional and national levels.

The 1995 Policy identified a restructured lead agency (The Environmental Protection Agency, EPA) to drive the process towards sustainable development. A decade and half later, the lead agency has attempted to spearhead the process of change from narrow conservation to sustainable development paradigm. However, the principal challenge confronting the environmental management process the country is ineffective enforcement of the policies and laws that exist to achieve the desired result.

## **2.0 MAJOR ENVIRONMENTAL CHALLENGES AND CURRENT MANAGEMENT ACTIVITIES**

### **2.1 Challenges and management activities**

The current environmental challenges and management activities in Ghana have been summarized in the following matrix:

<b>ENVIRONMENTAL CHALLENGE</b>	<b>CHARACTERISTICS</b>	<b>MANAGEMENT ACTIVITES</b>
1. Land degradation	<ul style="list-style-type: none"><li>• Results in declining productivity</li><li>• Traditional and modern agricultural practices have led to declining soil quality, deforestation, accelerated erosion, reduced crop yields, increasing desertifying conditions.</li></ul>	<ul style="list-style-type: none"><li>• Preparation of land use and land cover plans</li><li>• Mapping and environmental information systems of Natural Resources Management Programme (NRMP)</li><li>• National Soil Fertility Action Plan</li><li>• National Forest Plantation Development Programme (NFPDP) 2001</li><li>• Ratification of UN Convention to Combat Desertification (UNCCD)</li><li>• National Action Programme to Combat Drought and desertification (EPA, 2000)</li><li>• Ghana Environmental Management Project (3 Northern Regions)</li></ul>
2. Deforestation	<ul style="list-style-type: none"><li>• Marked deterioration of the condition and status of forest</li><li>• Forest resources mainly utilized for production of logs for export, fuel-wood extraction, charcoal production and agriculture, the main cause of deforestation</li><li>• Inadequate system for monitoring the rate and extent of deforestation</li><li>• Forest destruction through mining, bush fires and other poor silvicultural management practices</li><li>• Estimated annual forest cover decline of about 70,000 ha.</li></ul>	<ul style="list-style-type: none"><li>• Forestry Commission since 1970 has been implementing comprehensive forest protection strategy to restore forest reserves</li><li>• About 30 areas (121,156 ha) of protected forests re-designated as Globally Significal Biodiversity Areas (GSBAs)</li><li>• Forestry Commission and Private Sector engaged in cultivation of forest plantations (about 94,00 ha in 2004)</li><li>• Community-protected areas (CPAs) also called “sacred groves” are available in many communities. EPA has recorded 145 CPAs in Ghana.</li><li>• Forest and Wildlife Policy (1994) encourages community involvement in protecting forest resources</li></ul>

3. Biodiversity Loss	<ul style="list-style-type: none"> <li>• Biological diversity is an indispensable component of natural resource base</li> <li>• Rich biodiversity in different parts of Ghana – mammals, birds and plants</li> <li>• Changes in the environment, drought and climate variability are proximate drivers of biodiversity loss</li> <li>• Economic development and urbanization have resulted in rapid loss of biological diversity</li> <li>• Current harvest of wildlife for meat is estimated between 225 and 385,000 tons annually</li> </ul>	<ul style="list-style-type: none"> <li>• Various domestic policies, laws and regulations related to conservation and use of biodiversity, e.g. Forestry and Wildlife policy, water resources policy</li> <li>• Designation of “protected areas” – Six Resource Reserves, Two wildlife Sanctuaries, Seven National Parks, Six Ramsar Sites and many community based sanctuaries</li> <li>• Ghana is party to many international conventions on biodiversity. <ul style="list-style-type: none"> <li>- Convention on Biological Diversity (CBD)</li> <li>- CITES</li> </ul> </li> <li>• Projects to conserve biodiversity: <ul style="list-style-type: none"> <li>- Northern Savanna Biodiversity Conservation Project</li> <li>- National Biodiversity Strategy and Action Plan</li> </ul> </li> </ul>
4. Water Pollution	<ul style="list-style-type: none"> <li>• Major sources include: domestic and municipal wastes, agricultural and industrial wastes and other improper land use practices</li> <li>• Water pollution creates major environmental health problems – spread of disease pathogens which create water-borne diseases</li> <li>• Marked variation in river water quality for urban and rural settlements due to disposal of liquid and solid waste into water courses</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness creation campaigns for protection of watersheds by government agencies and NGOs</li> <li>• Impoundments to improve water availability for different uses</li> <li>• The Community Water and Sanitation Agency (CWSA) is assisting communities in the provision of water and sanitation facilities</li> <li>• The African Development Bank (AFDB) has sponsored the Rural Water Supply and Sanitation Project</li> <li>• Provision of safe water in guinea worm endemic communities</li> </ul>
5. Marine and Coastal Degradation	<ul style="list-style-type: none"> <li>• Marine and coastal areas are under pressure due to: intensive agricultural production, industrial development, salt production, mining and quarrying and urban development</li> <li>• Sources of pollution are municipal and industrial effluents, agricultural runoffs</li> </ul>	<ul style="list-style-type: none"> <li>• Direct investment in control structures, e.g. Keta Sea Defence Project</li> <li>• Gabions and boulder revetments to arrest erosion</li> <li>• Mangrove replanting and planting of other vegetative cover, e.g. at Winneba</li> <li>• Regulatory incentives – fines for</li> </ul>

	<ul style="list-style-type: none"> <li>• Sea erosion, e.g. Keta and Ada</li> </ul>	<p>illegal mining</p> <ul style="list-style-type: none"> <li>• Policy reforms in land use planning and coastal zone management</li> <li>• Investments in waste treatment and small scale waste collection</li> </ul>
6. Mining and Industrial Development	<ul style="list-style-type: none"> <li>• Mining has been an important industrial activity in the economy of Ghana</li> <li>• Small-scale mining for gold and diamond has also been important</li> <li>• Main environmental challenges include land devastation, soil degradation, water and air quality deterioration, noise, visual intrusion and social dislocation</li> </ul>	<ul style="list-style-type: none"> <li>• Mineral Policy and Fiscal Regime</li> <li>• EIA Procedures</li> <li>• Reclamation Bonds</li> <li>• Performance Disclosure Rating System</li> <li>• Minerals Commission</li> <li>• NREG Project</li> </ul>
7. Urbanization	<ul style="list-style-type: none"> <li>• Rapid population growth rate (2.2 % pa)</li> <li>• Regular north-south, rural-urban migration</li> <li>• Very high housing demand needs</li> <li>• Impact of over-crowding on human health, poor sanitation, absence of sewage treatment plants</li> <li>• Lack of planning leading to inordinate growth of cities, e.g. Accra, Kumasi, Tamale</li> <li>• Encroachment on reserved open spaces and waterways</li> <li>• Proliferation of unapproved settlements</li> </ul>	<ul style="list-style-type: none"> <li>• Policies and programmes to improve living conditions in rural areas to contain rural-urban migration</li> <li>• Improvement in urban transport</li> <li>• Affordable housing projects in the main cities</li> <li>• Draft Urban Policy in place</li> <li>• Draft Housing Policy</li> <li>• Cabinet approval of Environmental Sanitation Policy</li> <li>• Northern Region Small Towns Water and Sanitation Project</li> </ul>

## 2.2 Emerging issues

These are environmental challenges which have assumed prominence since the publication of the first environmental policy

ISSUE	CHARACTERISTICS	INTERVENTIONS
1. Climate Change	<ul style="list-style-type: none"> <li>• Global problem with local implications</li> <li>• Changes in rainfall pattern and impact on agricultural production, unprecedented floods and disasters</li> <li>• Increased coastal erosion due to sea level rise</li> <li>• Drought in Sahelian region resulting in southward migration of people and animals</li> <li>• Climate change and associated health problems</li> </ul>	<ul style="list-style-type: none"> <li>• Guidebook to facilitate the integration of climate change and Disaster Risk Reduction into National Development Policies and Planning prepared</li> <li>• Ghana is party to the UN Framework Convention on Climate Change (UNFCCC)</li> <li>• Studies on measures to abate climate change through forestry and Land-use using the Comprehensive Mitigation Analysis Process (COMPAP) model.</li> <li>• A needs assessment report prepared in fulfillment of decisions of the COP of the UNFCCC</li> <li>• A report with the assistance of the Climate Technology Initiative (CTI) of the OECD lists a number of desired technologies based on national set of criteria: Energy Efficient Lighting, Industrial Energy Efficiency and Land fill Methane Gas Recovery</li> </ul>
2. Natural Disasters	<ul style="list-style-type: none"> <li>• Accra district and some coastal areas have previously experienced earthquakes and continue to experience minor tremors</li> <li>• Occasional droughts – most severe in 1982/3 with disastrous effects on livelihoods</li> <li>• Devastating annual floods throughout the country, especially in Greater Accra</li> </ul>	<ul style="list-style-type: none"> <li>• National Disaster Management Organization (NADMO) in place</li> <li>• Seismological stations installed at Weija, Shai Hills, Kukurantumi and Accra</li> <li>• Educational programmes to create public awareness</li> <li>• Integrated watershed management to combat desertification</li> <li>• Korle Lagoon Ecosystem Restoration project</li> <li>• Byelaws restricting structures in flood-plains, water ways, wetlands, etc.</li> <li>• Ghana has ascribed to the Hyogo Framework for Action (HFA) which aims to reduce substantially loss of life as well as the social</li> </ul>

		<p>economic and environmental losses resulting from disasters</p> <ul style="list-style-type: none"> <li>NADMO spends more than 85% of its resources to address issues related to hydro-meteorological disasters</li> </ul>
3. Urban Noise	<ul style="list-style-type: none"> <li>Motor vehicle congestion and increasing noise levels from sirens and horns</li> <li>Commercial activities in markets and at lorry parks</li> <li>Industrial noise: factories, mining operations, quarries</li> <li>Noise at entertainment and social gatherings – e.g. parties, churches, mosques</li> <li>Equipment and engine noise, e.g. generators, corn mills and block moulding machines in residential areas, itinerant musical shops, etc.</li> </ul>	<ul style="list-style-type: none"> <li>EPA guidelines on permissible ambient noise levels for the country</li> <li>Noise levels for residential, educational, commercial and places of worship</li> <li>Inability of Municipal/Metropolitan Assemblies to enforce the guidelines</li> </ul>
4. Oil and Gas Industry (Petroleum Exploration)	<ul style="list-style-type: none"> <li>Oil and Gas industry is new as a result of the Oil discovery in the Jubilee Field (Western Region)</li> <li>Areas of concern include <ul style="list-style-type: none"> <li>- Oil spills at sea and on land</li> <li>- Pollution of air, water and land</li> <li>- Transportation – pipelines, tankers</li> </ul> </li> <li>International relations</li> <li>Coastal ecosystem destruction</li> </ul>	<ul style="list-style-type: none"> <li>Petroleum Exploration bill before Parliament</li> <li>EPA guidelines on petroleum exploration (EIA, ESIA, SEA)</li> <li>“Strengthening Environmental Governance of the Oil and Gas Sector in Ghana” programme (EPA)</li> <li>Act before Parliament to manage oil resources and income from oil</li> <li>GNPC in place</li> <li>Ghana is member of Oil for Development (OFD) programme (Norway)</li> <li>Jubilee Field EIA</li> <li>SEA of Petroleum Sector</li> </ul>
5. Invasive Alien Species	<ul style="list-style-type: none"> <li>Occur in large water reservoirs – Oti arm of Volta Lake, Tano Basin</li> <li>Obstruction water use: fisheries, hydropower generation, transportation</li> </ul>	<ul style="list-style-type: none"> <li>Invasive Aquatic Weeds Management Project (EPA)</li> <li>EPA Water-weed Management in West Africa</li> <li>Integrated Management of the Volta River Basin</li> </ul>
6. E-Waste	<ul style="list-style-type: none"> <li>Sources are: used equipment in the form of computers, copying machines, television sets, mobile phones and electronic equipments</li> <li>Rejected in the country of origin and</li> </ul>	<ul style="list-style-type: none"> <li>Ghana is signatory to the Base Convention and Kyoto Protocol as well as other global treaties for the protection of environment</li> <li>EPA Act 1994 (Act 490) provides</li> </ul>

	<p>imported into Ghana without regard to their age and degree of usefulness</p> <ul style="list-style-type: none"> <li>• No guidelines/manuals on disposal techniques</li> <li>• No e-waste collection or recycling programme</li> <li>• Burning of e-waste to retrieve useful parts</li> <li>• Consequent emissions and toxins cause detrimental impacts on human health and the environment</li> </ul>	<p>the principles and mechanisms for integrating good environmental management into all developing activities.</p> <ul style="list-style-type: none"> <li>• EPA Act provides framework for waste management through the principles that refer to avoidance or minimization and remediation of pollution, including waste reduction re-use, recycling and proper waste disposal.</li> </ul>
7. Chemicals (PCBs)	<ul style="list-style-type: none"> <li>• Covers all chemicals – except pharmaceuticals</li> <li>• Increasing use of agro chemicals – pesticides, weedicides, fertilizers</li> <li>• Potential to cause considerable health and environmental problems – production to end use</li> <li>• Presence affects the quality of air, soil and water</li> </ul>	<ul style="list-style-type: none"> <li>• The Factories Offices and Shops Act 328 (1970)</li> <li>• Draft Policy on Occupational Safety and Health</li> <li>• Mercury Law (1989)</li> <li>• Prevention and Control of Pests and Diseases of Plants (Act 307) Infectious Disease Ord. Cap 78</li> <li>• Licensing of all chemical dealers</li> </ul>

### 2.3 Conclusion

Ghana's current pattern of development puts a lot of stress on the environment. The pressures on the natural eco-systems in Ghana are significant and if adequate interventions are not made to reverse the situation, it is likely that the long-term overall effect would be irreparable and disastrous to future generations.

The efforts by Ghana and other stakeholder institutions so far are quite commendable. However there is still the need to continuously adopt realistic and implementable environmental policies and strategies to solve these problems as they re-occur. Proper management of Ghana's resources requires that efforts should be redirected into more environmentally sustainable programmes and practices. Such programmes should protect and preserve the resource base for use by present and future generations. Assessment of the potential environmental impacts of development projects and planning in advance to mitigate or eliminate these impacts will decrease environmental costs to the economy and make more cost-effective use of the country's resources.

## **SECTION B**

### **NATIONAL ENVIRONMENTAL POLICY**

#### **3.0 INTRODUCTION**

Ghana's participation in the Stockholm Conference in 1972 signified the beginning of the country's desire and willingness to make concerted and conscious efforts at the management of its environment. At the Earth Summit in Rio twenty years later, Ghana and the world moved closer to the objective of living in harmony with our environment by signing the Rio Conventions. By signing the agreements, Ghana and the world at large affirmed the reality and truth that development and environmental issues and goals are one. Environmental challenges have increased since Rio, and problems in the critical areas of pollution, urban congestion, loss of biodiversity and climate change have worsened. Since these concerns are of public goods nature, the Government of Ghana has played its due role in the management of these environmental concerns.

The 1992 Constitution was adopted just before the 1995 Environmental Policy was formulated. The new Constitution has made government accountable to the people of Ghana. It identifies the Legislature, the Executive and the Judiciary as the different arms of government within the framework of cooperative governance. The starting point for developing a new environmental policy for Ghana, therefore is the Constitution from which derives the powers of government and the Ghanaian population at large.

Ghanaians are entitled to an environment that is not harmful to their health and well-being and are enjoined to have the environment protected for the benefit of present and future generations through reasonable legislative and administrative measures. In order to achieve this and to meet the development needs of our people, sustainable development is essential. Sustainable development requires an integrated and coordinated environmental management policy. In formulating a new environmental policy for Ghana therefore, all stakeholders must be involved throughout the process at local, district, regional and national levels.

A national consultation process is therefore required for that purpose. The Ministry of Environment, Science and Technology (MEST) and the Environmental Protection Agency are responsible for coordinating that process. The final Policy should not be considered as an instrument of change but as a result of the change process.

#### **3.1 VISION**

The new vision for environmental management is based on an integrated and holistic management system for the environment in Ghana. It is aimed at sustainable development now and in the future. The vision for the environmental policy, therefore, is: "**To manage the environment to sustain society at large.**"

The policy seeks to unite Ghanaians in working toward a society where all residents of the country have access to sufficient and wholesome food, clean air and water, decent housing and other necessities of life. That will further enable them to live in a fulfilling spiritual, cultural and physical harmony with their natural surroundings.

This new paradigm of sustainable development based on integrated and coordinated environmental management will ensure:

- citizens' quality of life and their living and working environments
- equal access to land and other natural resources
- more efficient use of social, cultural and natural resources
- public participation and environmental governance

### **3.2 MISSION STATEMENT**

The goal of the Government of Ghana is to improve upon the foundations laid by the previous policy and activities implemented under the Ghana Environmental Action Plan. The goal is based on integrated and holistic environmental management practices and processes over the next ten years. In this regard, government is committed to:

- utilize all available resources at its disposal in the most effective way to achieve the aims of the policy
- promote the integration and coordination of its approach to environmental management among all the MDEs.

The Environmental Protection Agency (EPA), the official government institution shall be responsible for ensuring the integrated and coordinated implementation of the policy and the associated activities during the stipulated period. EPA shall ensure that:

- people's environmental rights are enforced
- the challenges of environmental sustainability are adequately addressed
- a follow-up on the priorities and goals of government policy are implemented

The EPA shall further undertake to:

- promote better understanding of sustainable development in all spheres of national endeavour and what it takes to achieve it
- play a lead role in securing the implementation of integrated, equitable, participatory and effective environmental management practices
- pursue constant improvement in government's commitment to environmental sustainability
- develop mechanisms to engage effectively in international agreements and cooperation in environmental governance
- monitor and report biannually on the state of the environment

### **3.3 POLICY STATEMENT**

Government's support for the environment has grown during the past 30 years and the general performance of the environment has considerably improved. At the same time, environmental challenges have increased, and emerging problems in the critical areas of pollution, urban congestion, loss of plant and animal species and climate change have worsened. These concerns must be given increased operational priority, in recognition that long-term economic growth, social transformation, poverty reduction and environmental sustainability are inter-linked and must therefore constitute the foundations of government's environmental policy.

The policy statement primarily "**takes account of the national environmental priorities while sufficient attention is also given to longer-run sustainability concerns. Government ownership of the national environmental objectives is indeed important, but ministries, departments and agencies, as well as other institutions including non-governmental organizations must buy into the policy implementation process to ensure overall success.**"

The policy therefore aims at:

- reversing the current insufficient commitment to environmental objectives, policies and interventions
- reversing rapid population growth, economic expansion, persisting poverty, poor governance and institutional weaknesses and failures
- improving quality and flow of information
- creating an understanding of the nature and causes of environmental problems
- establishing a clear definition of the national environmental agenda and its links to economic growth and poverty reduction and weak legal, regulatory, financial, technical, human and institutional capacity
- mainstreaming international relations into the national environmental agenda
- improving the current environmental quality control programme by which prior environmental impact assessments of all new investments that would be deemed to affect the quality of the environment are undertaken.
- taking appropriate measures, irrespective of existing levels of environmental pollution and extent of degradation to control pollution and the importation and use of potentially toxic chemicals.
- taking appropriate measures to protect critical ecosystems, including the flora and fauna they contain against destructive practices.

### **3.4 OPERATIONAL PRINCIPLES**

The National Environmental Policy shall be implemented on the basis of principles for environmental management. These principles are the fundamental premises which will be employed by government to direct actions including decision making, legislation, regulation and enforcement.

#### **3.4.1 Accountability**

Government is accountable for policy formulation, project implementation, monitoring compliance and enforcement. In this regard, government will allocate roles to selected institutions in accordance with the Constitution of the Republic of Ghana.

#### **3.4.2 Allocation of Functions and Coordination**

Government of Ghana will allocate functions within the framework of the Constitution to institutions and other arms of government that can most effectively achieve the objectives of the particular function within the context of the environmental policy. Furthermore, environmental concerns affect all aspects of human endeavour and must be integrated into the work of all government institutions. This requires intergovernmental harmonization of policies, legislation, monitoring, regulation and other environmental functions in accordance with the requirements of this policy.

#### **3.4.3 Capacity Building and Education**

Every Ghanaian must have the opportunity to develop the understanding, skills and capacity to effectively participate in the process of achieving the sustainable development goals.

#### **3.4.4 Conflict of Interest**

Any actual or potential conflicts of interest between responsibilities for resource exploitation, and any responsibilities or powers affecting environmental quality or impact management, must be resolved with despatch. Solutions to such conflicts of interest must ensure effective implementation of the environmental policy and make provision for the role of the lead institution in maintaining the norms and standards.

#### **3.4.5 Due Process**

Due process must be applied in all environmental management activities. This includes adherence to the provisions in the Constitution with respect to just administrative regulations and public participation in environmental governance.

#### **3.4.6 Equity**

There should be equitable access to all environmental resources, benefits and services to meet basic needs in order to ensure human well being. Each generation of Ghanaians has the duty to avoid impairing the ability of successive generations to ensure their well being.

### **3.4.7 Environmental Justice**

In order to ensure environmental justice, government must integrate environmental considerations with social, political and economic justice in addressing the needs and rights of all communities, sectors and individuals.

In this regard, policy, legal and institutional framework must:

- redress past and present environmental injustice
- address the need to protect and create employment
- recognize the right of workers to refuse work that is injurious to human health or the environment
- recognize the right of every citizen to expose any environmental or health hazard without fear
- uphold the equitable representation and participation of the poor and the marginalized in society

### **3.4.8 Global and International Cooperation**

The Government of Ghana must recognize its responsibilities for regional, African and global environmental issues and uphold the principles and regulations contained in international agreements and conventions, especially those pertaining to the ECOWAS protocols and agreements.

### **3.4.9 Good Governance**

Good governance is a function of mutual trust and reciprocal relations between government and the citizens. This must be based on the fulfillment of constitutional, legislative and executive functions, the acceptance of authority, probity, transparency and accountability.

Successive democratically elected governments in Ghana are the legitimate representatives of the people. In the pursuit of good governance, therefore, governments must honour their obligations to give effect to peoples' environmental rights enshrined in of the Constitution. This includes:

- taking responsibility for developing and implementing environmental policy
- exercising the legal authority to take decisions and carry out actions vested in government by the supreme law of the country
- acting in accordance with the basic values and principles governing public administration contained in the Constitution.
- being accountable to the Ghanaian citizenry
- responding to public needs by encouraging public participation in environmental governance
- monitoring and regulating actions that impact on the environment

### **3.4.10 Inclusivity**

Environmental management processes must take into consideration the interests, needs and values of all interested and affected parties in decision making in order to

achieve sustainable development. This recognition should cover all forms of knowledge including traditional and conventional knowledge systems.

#### **3.4.11 Integration**

There is a close relationship between and among all elements of the environment and management must recognize this relationship. Mainstreaming environmental concerns in all areas of human endeavour is central to the achievement of sustainable development. This integration must be done at policy, planning, programme and project levels.

#### **3.4.12 Open Information**

Every Ghanaian must have access to relevant information to enable them to:

- protect the environment
- protect their health and well-being
- participate effectively in environmental governance
- comply with environmental policy, legislation and regulation

#### **3.4.13 Prevention**

Government must anticipate problems and prevent negative impacts on the environment and on people's environmental rights.

#### **3.4.14 Polluter Pays**

Those responsible for environmental damage must be held liable for the repair caused both to the physical and human environments. They must also be held responsible for the costs of preventive measures to reduce or prevent further pollution and environmental damage.

#### **3.4.15 Waste Management**

Management of waste must minimize and avoid the creation of waste at source and particular attention should be given to toxic and hazardous wastes. Government, municipal and district administrations, must practise recycling, separation at source, waste-to-energy practices and safe disposal of unavoidable waste.

## **3.5 STRATEGIC GOALS & OBJECTIVES**

This section provides a brief description of the priorities for achieving the vision and the means of focusing government actions on the environment over the next decade. These priorities are expressed in the form of broad strategic goals and supporting objectives.

### **3.5.1 Goals**

The goals indicate the direction government will follow in meeting the ultimate goal of sustainable development and an integrated holistic system of environmental management. The aim is to move the country from the previous situation when development was undertaken with little consideration for the environment to a stage when the economy will be in balance with ecological processes.

### **3.5.2 Objectives**

This can best be achieved through the recognition that environmental concerns cut across all sectors of human endeavour. Therefore the policy objectives must address the activities of all sectors of the economy, and the cooperation and commitment of all these sectors is required for effective implementation.

### **3.5.3 Strategic Goals**

In its drive to achieve the over-aching goal of sustainable development, GOG will emphasize the following strategic goals. It must be emphasized that these goals are interdependent and all must be addressed to achieve the desired results since all the environmental concerns cut across various sectors and functions. The goals are followed by corresponding objectives.

#### **3.5.3.1 Strategic Goal 1: Effective Institutional and Legislative Framework**

Government will create an effective, adequately resourced and harmonized institutional framework, centred around the Ministry of Environment, Science and Technology and the Environmental Protection Agency, and an integrated legislative system, and improve institutional capacity in both areas.

##### **Objective:**

From the point of view of **the institutional framework**, Government shall:

- conduct, audit and review existing skills, capacities, functions and deployment of resources in the Environmental Protection Agency (EPA) as the lead institution
- investigate institutional options, including the establishment of new institutions to cover grey areas

- the coordinating role of the Ministry of Environment, Science and Technology (MEST) and EPA shall be clearly defined, to establish appropriate mechanisms and structures
- charge the MEST and EPA with the development of subsidiary policies within the framework of this national policy
- empower the MEST and EPA to integrate and coordinate all environmental management functions within and between all MDAs
- charge the MEST and EPA to negotiate and enter into relevant international agreements, ensuring their coordinated requirements
- establish mechanisms including ADR methods and procedures for the resolution of local and international disputes
- provide avenues for appeals against decisions in all spheres of government

## **Legislation**

Carry out a legal audit to review and establish:

- compliance of existing environmental legislation with the Constitution
- possibility of consolidating and streamlining the existing environmental legislation
- how the results of the audit can be used to develop relevant and effective environmental legislation, norms and standards
- how to conduct regular reviews of the relevance and appropriateness of all government policies, strategies, plans, legislation and standards that have impacts on the environment in order to update them in line with emerging developments in environmental management
- how to allocate adequate resources to all MDAs to meet the need for people-driven, sustainable management and the redress of past injustices and inequalities
- domesticating international laws, conventions and protocols on the environment into national laws and regulations

### **3.5.3.2 Strategic Goal 2: Sustainable Resource Use and Impact Management**

Government will promote equitable access to, and sustainable use of the country's natural and cultural resources, promote environmentally sustainable lifestyles, and mainstream environmental impact management practices into all development activities to achieve sustainable development.

## **Objective**

Every citizen of Ghana must have an equitable access to, and make sustainable use of the country's natural and cultural resources to promote sustainable lifestyles. In the process, environmental impact management must be mainstreamed into all economic development activities to satisfy the basic needs of the people. Government will therefore ensure:

- wise use of non-renewable resources

- the interest and needs of present and future generations
- all environmental impacts related to resource exploitation are assessed
- the potential for the use of alternative technologies with lesser environmental impacts are explored
- the sustainable use of renewable resources
- that investment policies do not unnecessarily transfer ownership of the natural resources of the country into the hands of foreigners

### **3.5.3.3 Strategic Goal 3: Holistic and Integrated Planning**

Under the aegis of the National Development Planning Commission, Government will develop mechanisms to ensure that environmental considerations are adequately integrated into all government policies, programmes and projects.

#### **Objective:**

The Environmental Protection Agency and the sector Ministry, in close collaboration with the National Development Planning Commission and other relevant government and non-governmental organizations shall develop mechanisms to ensure that environmental conditions are effectively mainstreamed into the development of policies and programmes. All spatial and economic development planning processes shall be subjected to strategic environmental assessment techniques and other relevant impact assessment methodologies. This will to a large extent ensure:

- that integrated environmental principles and methodologies are mainstreamed into special development planning including the use of natural and cultural resources
- the development of management instruments and mechanisms for the integration of environmental concerns in development planning and land allocation
- that standards for environmental management systems, environmental impact management, monitoring and evaluation procedures and reporting for all activities that impact on the environment are set and enforced
- that appropriate indicators to measure performance in all areas of the national, regional, district and local levels are developed and applied
- the improvement in the current review processes for all aspects of environmental management
- that MEST and the EPA as the lead agency reviews policies, government responsibilities and decision making processes and effectively coordinates these between government administrative sectors

### **3.5.3.4 Strategic Goal 4: Participation and Coordination in Environmental Governance**

The lead institutions in environmental governance will establish mechanisms and processes to ensure active public participation in all environmental matters. Levels of coordination must be clearly identified to avoid interference in the affairs of other institutions.

## **Objective**

Government will establish clearly defined mechanism and processes to ensure public participation in environmental governance by:

- establishing multi-sectoral advisory structures (e.g. Inter-Ministerial Committee) in all spheres of government to enable all interested and affected parties to participate in environmental governance
- developing public participation mechanisms (e.g. durbars, town hall meetings) and mechanisms that are fair, transparent, non-political and effective and which will promote the participation of marginalized sectors of society
- allocating government resources, financial and human, to build institutional capacity at the national, regional, district and local levels for effective management and participation of marginalized sectors of society
- ensuring that national communication strategies address public participation needs
- encouraging alliances between government and all interested and affected persons and parties

### **3.5.3.5 Strategic Goal 5: Environmental Awareness Creation and Empowerment**

Government will promote education and awareness creation among the Ghanaian population. They will be empowered through the development of knowledge, skills, values and commitment required for sustainable development.

## **Objective**

Government will promote the education and empowerment of all Ghanaians by increasing their awareness of, and concern for environmental issues. Special programmes will be undertaken to develop the local knowledge systems, skills, values and commitment required to achieve overall sustainable development through:

- the integration and expansion of environmental education in the curricula of all levels of the educational system
- the integration of environmental education into all non-formal educational programmes
- the enhancement of environmental literacy through the media
- the assurance that environmental education programmes and projects promote a clear understanding of the inter-relationships between and among economic social, cultural, political and environmental issues
- the provision of all environmental policy documents in the major Ghanaian languages

### **3.5.3.6 Strategic Goal 6: Information Management**

Relevant state and private sector institutions will be resourced to develop and maintain mechanisms to increase access to information, especially environmental information, through the application of modern tools such as ICT and GIS. A State of The Environment (SOE) Report will be produced at regular intervals to provide accurate and timely information on the environment.

#### **Objective**

Government will develop and improve upon existing information management systems to supply reliable data and information that will support environmental management. For this purpose, government shall:

- conduct an information audit through the Ghana Statistical Service with the aim of developing an effective information management system to meet user needs
- establish appropriate environmental indicators which will facilitate informed decision making, measure progress in policy implementation and support public participation in environmental governance
- strengthen and optimize the capacity of government agencies to collect, analyse and use relevant information for environmental management
- disseminate information through formal and informal avenues including the mass media
- enjoin the EPA to periodically report on the State of the environment

### **3.5.3.7 Strategic Goal 7: International Cooperation**

Ghana's role in regional (ECOWAS) and global agreements and other protocols must be sustained. The country's obligations under international environmental conventions must be respected and nurtured.

In negotiating international agreements, government representatives must ensure adequate and professional familiarity with themes and must ensure adequate opportunity for consultation with relevant parties before entering and signing these agreements.

Government must cooperate on shared international concerns that are of environmental nature, especially in the ECOWAS Region. Steps will be taken to prevent trans-boundary environmental harm, especially as a result of transhumance and trans-boundary movement of hazardous and toxic waste.

Government must take appropriate measures to prevent ozone layer depletion and other issues related to climate change.

## **Objective**

Government of Ghana is party to international treaties and agreements dealing with environmental matters. In pursuance of these obligations, government shall:

- ensure adequate opportunity for consultation with all interested parties before negotiating, entering and implementing international agreements
- meet all requirements arising from these international agreements and obligations
- cooperate internationally on shared environmental concerns, with particular reference to the ECOWAS Region
- ensure that international trade does not lead to wasteful use of natural resources or interfere with their conservation or sustainable use
- take appropriate measures to prevent damage to or depletion of stratospheric ozone

## **4.0 SECTORAL ENVIRONMENTAL POLICIES**

This section deals with resource specific policies. The various sectors have developed their individual policies or will be required to develop policies which will control and guide the use of the sectors in a suitable manner. For purposes of sustainable environmental management, the sectoral policies are:

### *4.1 Sustainable Agriculture*

- To ensure the sustainable use of the land in an agricultural economy
- To promote and encourage low farming systems.
- To regulate the use of toxic and hazardous chemicals (pesticides, herbicides and fertilizers) to safeguard human life and the environment.
- To ensure that planning for agricultural development incorporates in its cost-benefit analysis the potential costs of soil degradation through erosion and other degrading factors including soil and water pollution.
- To undertake full environmental, social and economic impact assessments of all existing and future irrigation projects, especially in the savanna areas.

### *4.2 Forest and Wildlife Resources*

- To ensure that forestry development strategies integrate the development, management and conservation of forest resources with those of land and water resources, energy resources, wildlife resources, ecosystems and genetic resources as well as with crop and livestock production.
- To protect nature and habitat, landscape, flora and fauna from the threat of degradation and depletion
- To increase the acceptance and practice of the principle of “sustainable forest management” which is only achieved when the volume of wood harvested in a given period is about equal to the net growth generated by the forest.
- To pursue crop production and animal husbandry policies and programmes that will reduce pressure on fragile forest and woodland ecosystems.
- To find substitutes for construction and fuel wood and popularize the use of lesser known wood species in order to reduce pressure on forests.
- To control the occurrence of annual wildfires.

### *4.3 Genetic, Species and Ecosystem Biodiversity Conservation*

- To conserve the diversity of landscapes, ecosystems, habitats, biological communities, populations, species and genes throughout the country by expanding human capacity.
- To use biological resources sustainably and minimize adverse impacts on biological diversity.
- To ensure that benefits derived from the use and development of the country’s genetic resources serve individual communities and national interests.

- To create and implement conditions and incentives that support the conservation and sustainable use of biodiversity at the national and international levels.
- To encourage involvement of local communities inside and outside protected areas in the planning and management of such areas.
- To ensure that the conservation of biological diversity outside protected areas is integrated with strategic national land use plans, district and local level plans and strategies.
- To include in protected areas a wide range of ecosystems and habitats as possible and where appropriate, to link them by corridors of suitable habitats to neighbouring countries for purposes of wildlife migration.
- To ensure that economic and pricing policies and instruments support biodiversity conservation.

#### *4.4 Marine and Coastal Zone Management*

- To ensure that the management, development and use of the coastal zone is integrated and environmentally sustainable.
- To ensure that the protection of the coastal wetlands is observed in line with the principles of the Ramsar Convention.
- To maintain the “wise use” and “appropriate technology” concepts in the use of marine and coastal zone resources.
- To adhere to residential and industrial land use regulations in order to protect coastal ecosystems.

#### *4.5 Water Resources*

- To vigorously pursue measures in place to resolve conflicts between the different uses of water and ensure that these are reduced further to the minimum.
- To make efforts to protect the various watersheds and pay special attention to buffer zone protection.
- To employ environmentally sound methods of disposing waste water as well as to prevent pollution of fresh water bodies.
- To reduce land-based pollutants flowing into the sea
- To ensure that the quantity, quality and reliability of water required to maintain ecological balance is maintained.
- To support the river basin approach to water resources development and adopt the Integrated Water Resources Management (IWRM) concept.
- To actively support the international waters programme especially activities of the Volta Basin Authority.
- To control the introduction of exotic alien species into freshwater ecosystems and subject such acts to detailed ecological studies and environmental impact assessment.
- To give particular attention to the role of women as the “managers” of water resources.

- To subject all major water resources conservation and development projects to environmental impact assessment procedures.
- The Water Resources Commission (WRC) the lead agency in the water sector to pursue coordination functions to the maximum.

#### *4.6 Energy Resources*

- To adopt an inter-sectoral approach to energy planning and development which integrates energy development with energy conservation, environmental protection and sustainable utilization of renewable energy resources.
- To reduce the pressure on forests for wood-fuels and encourage the use of renewable energy resources in order to reduce the use of fossil energy.
- To ensure that rigorous feasibility studies are undertaken for hydro-electricity facilities and other significant generating facilities all of which must be subjected to environmental impact assessment.
- To maximize the use of the nation's hydro carbon resources in the production and distribution of energy.

#### *4.7 Mineral Resources*

- To safeguard the long-term usability of the land in mining areas through the implementation of environmental management plans (EMPs) as part of EIAs.
- To encourage and control small-scale miners to practice organized and responsible mining so as to be consistent with environmental laws and regulations.
- To advise and train mining communities in methods of environmental protection and the use of abandoned mining areas.
- To strengthen the capacity of respective government institutions to regulate and administer environmental educational programmes for the public and for industry in environmental monitoring and the provision of technical advice in environmental management during mining operations.
- To use mining contracts to ensure that mining operations prepare environmental impact studies and undertake appropriate mitigation and reclamation measures.
- To regularly review the country's mining laws to reflect emerging issues in environmental management especially the restoration of mined land to the best improved level that the prevailing ecological conditions allow.

#### *4.8 Petroleum Exploration*

- To ensure that petroleum exploration, a new industry in the country, takes advantage of challenges experienced in other oil producing West African countries and conforms with existing and new environmental protection regulations.
- To promote the sound management of the petroleum resources of the country.
- To initiate, formulate and review policies and strategies for the development of the petroleum sub-sector.

- To ensure optimal operations of the petroleum resource consistent with sound technical, economic and environmental practices in the international petroleum industry.

#### *4.9 Urban Development*

- To plan and control the limit of growth of urban settlements in order to avoid the expansion of “millionaire” cities.
- To introduce modern management systems at the national, regional and district capitals.
- To incorporate rural-urban migration, land title and environmental health issues into the activities of the National Development Planning Commission.
- To reduce the level of waste generation and housing stock shortage and other environmental degradation concerns associated with urban development.
- To recognize the importance of and help bring about behavioral change through education and public awareness of environmental sanitation problems in order to bring about improved urban environmental conditions as well as the sustainable use and maintenance of sanitation facilities.
- To create more job opportunities for urban dwellers.

#### *4.10 Waste Management*

- To reduce and manage waste generated in urban areas as a result of residential and economic activity.
- To regulate and monitor waste production, enforce waste control measures and consolidate waste management under metropolitan, municipal and district administrations.
- To set targets to minimize waste generation at the different levels.
- To promote a hierarchy of waste management practices, namely reduction of waste, reuse, recycling and safe disposal as the last resort.
- To provide special training and control the generation and disposal of toxic waste and hazardous materials.
- To promote the adoption of waste-to-energy practices.
- To educate the general public on littering.
- To control the importation of aged materials that easily converts to hazardous waste.
- To provide incentives to adopt affordable and appropriate technologies in waste management.
- To promote and nurture sound partnerships between and among government, communities and the private sector in the development of an integrated sanitation delivery system and to foster the supplementary role of NGOs in the urban areas.
- To introduce effective policies and incentives to encourage waste producers to adopt cleaner production processes and minimize waste generation.

#### *4.11 Pollution Prevention and Control*

- To prevent, reduce and control pollution of any part of the environment resulting from any form of human activity especially toxic and other hazardous substances.
- To set targets to minimize waste generation and pollution at source.
- To regulate and monitor waste production, enforce waste control measures, and coordinate administration of integrated pollution control and waste management under decentralized system.
- To improve existing information systems on chemical hazards and toxic discharges and monitor the transport of hazardous materials.
- To ensure the protection and proactive management of human health-related problems in the environment.
- To adopt the “polluter pays principle” while endorsing the “precautionary principle.”
- To establish clear linkages between the control of pollution and policies of other sectors including water resources, agriculture, human settlements, health and disaster prevention and preparedness.
- To ensure that pollution control is commensurate with the potency, longevity and potential to increase or reproduce the pollutant.
- To enforce the guidelines for the location and management of sanitary landfill sites.
- To review and develop guidelines for waste disposal, public and industrial waste disposal systems
- To formulate and implement a countrywide strategy and guidelines on the management of wastes from medical, agricultural and other sectors that may use potentially hazardous materials.
- To establish a system for monitoring compliance with land, air and water pollution control standards and regulations, the handling and storage of hazardous materials, mining operations, public and industrial hygiene, waste disposal and water quality.
- To update the register of toxic, hazardous and radio-active substances and to make the information available on request.
- To foster better nationwide knowledge and understanding of the dangerous effects of chemicals through the provision of information in a form understandable by all users.

## **5.0 CROSS-SECTORAL ENVIRONMENTAL POLICIES**

The following cross-sectoral issues are considered in the context of the environmental policy:

### **5.1 Population and the Environment**

- To integrate population planning and resource management issues into environmental management to achieve sustainable lifestyles.
- To inculcate environmental management principles, both traditional and modern, among school children so that they will grow to appreciate the environment as a life supporting system.
- To include issues of poverty, health and education into the national development planning process since these are interlinked with those of population growth, availability and access to resources and environmental sustainability.
- To empower women in order to facilitate their participation in population and environmental decision making.

### **5.2 Community Participation and the Environment**

- To provide facilities and avenues for the entire population to participate in environmental management.
- To familiarize the majority of the national population with all phases of environmental and resource development and management: – project conception planning, implementation, monitoring and evaluation.
- To develop and disseminate effective methods of popular participation in the planning and implementation of environmental and resource use projects and programmes.
- To develop the necessary legislation, training and provide financial support to grassroots communities to ensure their participation in resource and environmental management.

### **5.3 Social and Gender Issues**

- To ensure that environmental awareness and public education programmes include both men and women across the social divide.
- To ensure that impact assessments cover all policies, programmes and projects in order to maximize equity for economic, ethnic, social, cultural, gender and age groups, especially the socially disadvantaged.
- To facilitate the participation of women across all sections of society in training, public awareness campaigns, formal and non-formal education and decision-making processes in environmental management.

## **5.4 Environmental Economics**

- To ensure that environmental cost and benefit analyses are applied in national development planning processes including programme and project preparation.
- To develop an accurate information base and standardized methodologies to facilitate calculation of environmental costs and benefits.
- To introduce environmental accounting at the tertiary level of the educational system.
- To develop the capacity of government agencies to monitor contracts, leases, concessions and performance bonds used for sustainable resource management and environmental protection.

## **5.5 Environmental Education and Awareness**

- To promote the teaching of environmental education on a multi-disciplinary basis and integrate it into the schools curricula.
- To increase the awareness of the population and their concern for environmental issues.
- To develop the knowledge, skills, values and commitment required to achieve sustainable development.
- To target the public, particularly those involved in public and private sector activities that have significant environmental impacts, for environmental education and awareness programmes.
- To ensure that all sections of the populations understand the functioning of the environment and the problems thereof, and contribute to the improvement of the environment.
- To increase the role of the media in fostering environmental awareness and education.
- To encourage religious leaders, traditional leaders and opinion leaders to foster environmental education and awareness.

## **5.6 Environmental Information System**

- To develop an appropriate information management system to support the principle that the right to live in a clean and healthy environment carries with it the right to be informed about environmental issues.
- To make available environmental information as a constitutional right to all interested people where appropriate.
- To base information generation on identified user needs, to make it demand-driven.
- To ensure that all environmental data collection, analysis and dissemination are coordinated and standardized but not centralized.
- To provide clear legislation and guidelines on environmental data generation indicating where restrictions are due.

- To develop a GIS database to help form a basis of an early warning system of environmental deterioration.

### **5.7 Environmental Research**

- To develop strategic environmental research which aims at identifying the social, economic and technical factors which influence resource and environmental management.
- To support research on appropriate technologies for environmental management.
- To combine existing traditional systems of research and learning into a new system which combines both modern and traditional components.
- To allocate funds to support strategic, applied and adaptive research programmes and projects.
- To allocate adequate resources to the respective Institutes of the Council for Scientific and Industrial Research (CSIR) to perform their roles in environmental research

### **5.8 Environmental Impact Assessment (EIA)**

- To strengthen the existing EIA procedures to consider social, socio-economic, political and cultural conditions in addition to the traditional physical and biological impacts.
- To ensure that public and private sector development programmes and projects consider environmental impacts and incorporate them into the design process.
- To recognize and widen the scope of public consultation as an integral part of the EIA process.
- To take independent review and public comments into consideration before granting approval to proponents.
- To ensure that environmental impact statements (EIS) include mitigation and environmental management plans and contingency plans in case of accidents.
- To enforce existing EIA laws and regulations.
- To subject all sector policies, programmes and projects to strategic environmental assessment (SEA)
- To strengthen the capacity of the Environmental Protection Agency to administer the EIA process and provide training to institutions in the conduct of EIA.

## **6.0 POLICY IMPLEMENTATION ARRANGEMENTS**

### **6.1 Institutional Framework and Responsibilities**

This policy will give political and grassroots support to the sustainable use of Ghana's natural, human-made and cultural resources and the management of the general environment to ensure decent life-styles for every Ghanaian.

It will also ensure that the Ministry of Environment, Science and Technology (MEST) and EPA and other coordination and management institutions from the national down to the local levels perform their mandates as defined by the enabling Acts. Successful environmental management will then be assured through the maximum use of existing institutional structures. (*See page 14*)

The policy determines institutional arrangements for the formulation of strategies, legislation, regulation, monitoring and enforcement for conservation and natural resource development using the following criteria:

- conformity with the provisions of the Constitution, with particular reference to the decentralization policy
- harmonization of sectoral interests
- integration of environmental management with development planning beginning at the national level.

In order to avoid conflict of interests, the policy assigns responsibilities to separate institutions for environmental and natural resource development and management activities. On the other hand, environmental protection, regulation and monitoring are vested in the lead agency, EPA.

### **6.2 Legislative Framework**

The legal framework should encourage the participation of all Ghanaians in the management of the country's resources. It should ensure that all aspects of the legal system are in agreement with the supreme law of the country and the prevailing political, socio-cultural and economic policies, and to harmonize these with the principles of sustainable development.

The framework should create conditions for formulating, reviewing and updating sectoral regulations for the restoration, protection, management and sustainable use of all resources in the country.

Finally, the environmental policy provides a broad framework for both punitive and incentive measures.

### **6.3 National Environmental Action Plan (NEAP)**

In order to ensure that the national policy is successfully translated into action, the Environmental Protection Agency (EPA), in consultation with Ministry of Environment, Science and Technology (MEST) and the National Development Planning Commission (NDPC) and other relevant institutions, will develop a new National Environmental Action Plan detailing strategies and action plans, and setting targets and time frames for the Medium Term (i.e. Ten years).

The NEAP will focus on and prioritize goals and objectives which require action by government and other MDAs within the next ten years. Criteria for prioritization will include:

- those actions which will ensure healthy working and living environments
- actions to protect the environment for present and future generations
- activities to assist in achieving growth to meet basic human needs
- programmes to achieve integrated and holistic environmental management

The NEAP process must be participatory, drawing on the experience of the previous NEAP.

### **6.4 Financing Arrangements**

A major factor required to ensure success of policy implementation is the timely availability of adequate funding required for programme and project implementation. Due to the cross- sectoral nature of the environment, financing arrangements for the sector have implications for all individuals, households, communities, District Assemblies, Ministries, Government of Ghana and Development Partners, i.e. all stakeholders.

#### **6.4.1 Objective:**

To ensure the availability of funding in adequate amounts and at the appropriate time to manage, rehabilitate and restore the environment in its totality throughout the territory of Ghana.

#### **6.4.2 Measures:**

- Maintain and restructure the Environmental Management Fund established under the EPA Act.
- Ensure that each MDA generates enough funds internally to finance environmental projects within its jurisdiction.
- Solicit funding from development Partners and other international organization for specific project support.

## **6.5 Monitoring, Evaluation and Policy Review**

Individual programme and project monitoring is the responsibility of the appropriate decentralized institutions. However, monitoring of the overall impacts of the implementation of this Policy on the country's resources should be consistent with the institutional arrangements specified above i.e. the MEST through the Cross-Sectoral Planning Group carries the overall responsibility for monitoring, evaluation and review of this Policy. However, specific aspects of monitoring can be delegated to other institutions, e.g EPA.

## **6.6 Conclusion**

The Ghanaian economy and society in general are characterized by inequitable distribution of resources and wealth. A minority enjoys high living standards with relatively good housing, infrastructure and services, all of which are congregated in the urban centres. On the other hand the basic needs of the majority are not adequately met.

This range from First to Third World lifestyles and circumstances creates particular problems for the management and protection of the environment and the promotion of sustainable development. In this situation, an environmental policy must face the challenges of addressing both the basic needs and survival strategies of the poor and the impacts of the relatively advanced economy.

This is the context within which the environmental policy must function, and against which government will measure the success or failure of policy implementation.