



FEDERAL REPUBLIC OF SOMALIA

Ministry of Environment and Climate Change

National Environmental Policy

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Chapter One

1.1. Introduction

Somalia is located in the Horn of Africa and is Africa's easternmost country. It extends from just south of the Equator northward to the Gulf of Aden and covers a land area of 637,540 square kilometres. Somalia has the longest coastline in Africa of over 3,333 km, which ranges from the Gulf of Aden in the north to the Indian Ocean in the east and south. Somali has land boundaries with three countries. It is bordered by Ethiopia to the west, Djibouti to the northwest, the Gulf of Aden to the north, the Indian ocean to the east and south, and Kenya to the southwest.

Climatically, the country is hot, arid to semi-arid and two rainy seasons prevail over much of the country, the "Gu" rains (April to June) and the "Deyr" rains (October to December). Rainfall is low and erratic with respect both to distribution and to timing and a total failure of two or more consecutive rains may be expected in one out of three years. The driest areas are the northern coast and the north-east. On the other hand, the rainiest areas are the north-west and the south-west of the country. In the South-West rainfall exceeds the annual average. The country has an average annual rainfall of about 250 mm.

Somalia has been marred by conflict and civil unrest for three decades. Severe droughts and conflict have negatively impacted the country and contributed to repeated loss of life, livelihoods and degradation of the environment. In 2014, the overall population of Somalia is estimated to be around 12.3 million persons: around 42% live in urban areas, 26% are nomadic and 23% live in rural areas, and 9% Internally Displaced People (Somalia- UNFPA, 2014). Approximately, 69% of Somalia's population lives below the poverty line (National Development Plan, 2017).

After decades of conflict, Somalia has taken steps towards long term peace. The country has crafted a National Development Plan to serve as a basis for future plans and policy developments. Against this background, the National Environment Policy is a response to our national commitment to a clean environment, mandated in the Provisional Constitution under Articles 25, 45 and The National Development Plan 2017-2019.

The National Environment Policy has been motivated by the above considerations and is intended to mainstream environmental concerns in all development activities. It briefly describes the key environmental challenges currently and prospectively facing the country, the goals and objectives of environment policy, principles underlying policy action, strategic themes for intervention, broad indications of the legislative and institutional development needed to accomplish the strategic themes, and mechanisms for implementation and review. This policy is a draft and will go through a process of extensive consultations with Federal Member States, experts, and diverse stakeholders.

The National Environment Policy is intended to be a guide to action: in regulatory development, programmes and projects for environmental conservation; and review and enactment of legislations, by agencies at Federal and State levels. The policy also seeks to stimulate partnerships of different

stakeholders, i.e. public agencies, local communities, academic and scientific institutions, private sector investment, and international development partners, in harnessing their respective resources and strengths for environmental management. This is particularly crucial since it is recognized that maintaining a healthy environment is not the state's responsibility alone, but also that of every citizen. A spirit of partnership should thus be realized throughout the spectrum of environmental management in the country. While the state must galvanize its efforts, there should also be recognition by each individual - natural or institutional, of its responsibility towards maintaining and enhancing the quality of the environment.

1.2. Rationale of the Policy

1.2.1. Key Environmental Challenges

The key environmental challenges that the country faces relate to the nexus of environmental degradation with the collapse of state and governance structures in its many dimensions. Due to decades of conflict, there is a limited scientific knowledge and research specific to the environment of Somalia. However, the damage that has been done to the environment is visible to the naked eye. The collapse of the State and governance structures have negatively impacted the Somali environment.

Sustainable management of natural resources is non-existent. Rapid deforestation across the country has created the conditions for desertification. Charcoal and firewood remain the main sources of energy both in urban and rural areas. Moreover, illegal charcoal export from the country continues unabated despite a ban by UN Security Council Resolution 2036 (2012) and the Somali government. According to United Nations Environment Programme (UNEP) estimates, 8.2 million trees were cut down for charcoal in Somalia between 2011 and 2017. As a result the forests in Somalia have been depleted to such an extent that the livelihood of the population has been severely impacted. Deforestation of the country led to land degradation, food insecurity and vulnerability to flooding and drought. A National Charcoal Policy is now in place to counter deforestation. Environmental degradation is a major causal factor in enhancing and perpetuating poverty, particularly among the rural poor, when such degradation impacts soil fertility, quantity and quality of water, air quality, forests and wildlife.

Equally, pastures and rivers are being unsustainably exploited, diminishing economic opportunities they could provide and diminishing essential resources required by the agricultural sector to manage times of crisis or stress. The poor are more vulnerable to loss of resilience in ecosystems. Large reductions in resilience may mean that the ecosystems, on which livelihoods are based, break down, causing distress. The loss of the environmental resource base can result in certain groups of people being made destitute. Poverty itself can accentuate environmental degradation given that environmental resources such as charcoal are a source of income. Poverty and environmental degradation are also reinforced by, and linked to population growth, which in turn, depends on a complex interaction of diverse causal factors and stages of development.

Further, rapid urbanization and the lack of waste management system in the country is creating a growing solid and liquid waste problem. Urban environmental degradation, through lack of (or inappropriate) waste treatment and sanitation, industry and transport related pollution, adversely impacts air, water, and soil quality, and differentially impacts the health of the Somali people. The absence of waste management legislation and enforcement will create a growing health and economic risk. It is increasingly evident that poor environmental quality has adversely affected human health. Environmental factors are estimated as being responsible in some cases for the increase of diseases previously unknown to the Somali people. Environment and health factors are closely linked to each other. It has been shown that interventions such as reducing air pollution, protecting sources of safe drinking water, protecting soil from contamination, improved sanitation measures, and better public health governance, offer tremendous opportunities in reducing the incidence of a number of critical health problems. It is also evident that these environmental protection measures would be difficult to accomplish without extensive awareness raising, and education, on good practices with respect to public and private behaviour.

On the other hand, absence of strong Somali coast guard has led to the unchecked dumping of toxic and hazardous waste in the territorial waters of Somalia. Such illegal activities present significant danger to human and environmental health of the country. In addition, the seafood resources of Somalia have been depleted through illegal fishing by foreign companies.

Likewise, the absence of rule of law and enforcement institutions, gave rise to an unregulated marketplace. There are no environmental standards for the various industries. Imported fuel, medicine, machinery, telecommunication equipments, construction and other projects and activities are not subjected to any environmental standards. Such unregulated market forces have adverse environmental implications.

Finally, another major set of challenges arises from emerging global environmental concerns such as climate change. Due to climate change, weather related hazards such droughts have increased. The rivers the rivers in the country have experienced unprecedented hydrological conditions which resulted river dry-ups negatively impacting on sensitive ecological systems which are dependent on the water of the rivers. These conditions have also threatened existing biodiversity inside and along the river. In Somalia, drought has become frequent and as a result tens of thousands of people in Somalia lack adequate food and water. The key is to innovate and exploit the untapped resources of the country such as fishing and minerals. Equally, Somalia should play an active role in bilateral and multilateral regimes and programmes responding to global environmental issues.

Therefore, given the magnitude of the challenges, it is high time to adopt a National Environmental Policy which will be the foundation for sustainable management of natural resources both at the Federal and member state levels. Rebuilding the institutional and legal framework to manage the environment

will entail vigorous efforts aimed at restoring the capacity of institutions, communities' natural management and putting in place effective and accountable governance structures, policy and achievable plans. Appropriate policies and practices for sustainable management of natural resources are required both at the national and state levels.

In a nutshell, the key environmental challenges in Somali are:

- 1) Land degradation (Soil Erosion, Deforestation, overgrazing etc)
- 2) Natural resource depletion
- 3) Water scarcity
- 4) Climate change (Natural disasters: drought, flooding)
- 5) Absence of waste management system
- 6) Hazardous waste (Illegal dumping)
- 7) Lack of marine and coastal management
- 8) Invasive species (plants)
- 9) Air pollution through urban and/or energy emissions
- 10) Absence of environmental regulatory framework
- 11) Poverty (lack of alternative means of livelihood to charcoal)
- 12) Lack of environmental awareness
- 13) Armed conflict that destroys the natural environment

Chapter Two

2.1. The Policy Goal, Objectives and Guiding Principles

The overall goal of the policy is to improve and enhance the health and quality of life of the Somali people and to promote sustainable development through sound management of the natural resources of the country.

The specific objectives of this policy are enumerated below. These Objectives relate to current perceptions of key environmental challenges. They may, accordingly, evolve over time:

a. Conservation of Natural Resources

To protect and conserve critical natural resources which are essential for livelihoods, economic growth, and a broad conception of human well-being. Natural resources, both renewable and non-renewable are utilized in a sustainable manner that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

b. Environmental Governance

- i. To strengthen environmental governance to ensure the sustainable management of the country's natural resource base.
- ii. The Federal Government and member states should be encouraged and enabled to develop, rebuild and strengthen the necessary institutions that will help to ensure good environmental governance.
- iii. To apply the principles of good governance by incorporating the full economic, social and environmental costs and benefits of natural resource development into the planning and implementation of projects.

c. Multi-stakeholder Partnerships

- i. To build and strengthen institutions at Federal and member state levels and empower them with the necessary capabilities to manage the Somali environment in accordance with this Policy and environmental legislations.
- ii. Revitalize environmental co-operation with neighbouring countries and within the region, the objective being to support peace building, enhance important environmental initiatives, and share information and knowledge.
- iii. To raise awareness and promote understanding of the importance of the environment among the Somali people, allow their participation at all levels in environmental management activities.
- iv. To ensure higher resource flows, comprising finance, technology, management skills, traditional knowledge, and social capital, for environmental conservation through mutually beneficial multistakeholder partnerships between local communities, public agencies, the academic and research community, investors, and multilateral and bilateral development partners.

2.2. Guiding Principles

This policy has evolved from the recognition that only such development is sustainable, which respects ecological constraints, and protects the environment. The Objectives stated above are to be realized through various strategic interventions by different public authorities at Federal and Member State levels.

These strategic interventions, besides legislation and the evolution of legal doctrines for realization of the objectives, may be premised on a set of unambiguously stated Principles depending upon their relevance, feasibility in relation to costs, and technical and administrative aspects of their application. The following Principles, may accordingly, guide the activities of different actors in relation to this policy. Each of these Principles has an established genealogy in policy pronouncements, jurisprudence, international environmental law, or international State practice.

a. Environmental Right

It is recognized that Human rights and the environment are intertwined; human rights cannot be enjoyed without a safe, clean and healthy environment. The Constitution of the Federal Republic of Somalia recognizes the right to a healthy environment. People are entitled to a healthy and productive life in harmony with nature (stated under article 25 of the Provisional Constitution).

b. Sustainable Development

Human beings are at the centre of concerns for sustainable development. Sustainable use of resources is using natural resources in a way that and at a rate that does not lead to a long-term decline of natural resources. The present generation must meet their needs without compromising the ability of future generations to meet their own needs.

c. Public Participation

Environmental policy depends for its success on public participation. Although the general public are not environmental experts, designing an environmental policy that can be successfully implemented, needs the support of the people. They need to be consulted in programs, projects and other activities aimed at protecting the environment.

d. The Precautionary Principle

Where there are credible threats of serious or irreversible damage to key environmental resources, lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation.

e. Polluter-Pays Principle

The cost of cleaning up any element of the environment damaged by pollution, compensating victims of pollution, cost of beneficial uses lost as a result of an act of pollution and other costs that are connected with or incidental to the foregoing, is to be paid or borne by the polluter. A polluter is one whose action potentially results in adverse impacts on the environment and/or third parties.

f. Legal Liability

The environmental redressal mechanism shall be based on doctrines of civil and/or criminal liability. The doctrines should be used in order to deter environmentally harmful actions, and compensate the victims of environmental damage.

g. Decentralization

Decentralization involves ceding or transfer of power from a Central Authority to State and Local Authorities, in order to empower public authorities having jurisdiction at the spatial level at which particular environmental issues are salient, to address these issues. The federal state structure of Somalia necessitates decentralization of authority to the lowest level possible. National, member states, regions, districts and villages shall play a role in the protection of the environment.

h. Mainstreaming

Mainstreaming refers to the inclusion of environmental considerations in sectoral policymaking, the integration of the social and natural sciences in environment related policy research, and the strengthening of relevant linkages among various agencies at the Central and State levels, charged with the implementation of environmental policies.

i. Preventive Action

It is preferable to prevent environmental damage from occurring in the first place, rather than attempting to restore degraded environmental resources after the fact.

Chapter Three

Revisiting Policies and Legislative Framework of Somalia

Policy and legislation with respect to the environment is weak and outdated. Pre-1991 environmental laws date back to the 1960s, 70s and 80s. Since the collapse of the state, no laws were passed, at least in the last three decades. Further, until the establishment of the Ministry of Environment and Disaster Management in 2005, Somalia lacked any central body responsible for environmental matters.

Currently, there are a number of institutions both at the Federal and state levels that would play key roles in the management of the environment. In addition to the Federal Ministry of Environment and Climate Change, the Federal Member States have their own ministries of environment responsible for environmental and climate change issues in their respective states. Adopting a national environmental policy and enacting up-to-date legislations are needed in order to address the environmental challenges stated earlier.

The following specific actions would be taken

- 1) Review the existing body of legislations and identify, prepare and enact new legislations in line with the National Environment Policy;
- 2) Encourage and facilitate review of legislations at Member State level with a view to ensuring their consistency with this policy;
- 3) Ensure accountability of the concerned levels of Government (Centre and State) in undertaking the necessary legislative changes in a defined time-frame, with due regard to the Objectives and Principles of National Environment Policy;
- 4) Develop adequate policies that will guide the sustainable use of their natural resource base.
- 5) Follow a consultative and participatory process, when developing new policies and laws;
- 6) Put in place supportive mechanisms for institutional capacity building, so that policy implementation and monitoring are strengthened in order to monitor the state of the environment in Somalia and update the policy as new knowledge and scientific developments become known.

Chapter Four

Sectoral Policies

4.1. Agriculture

Agriculture is an important economic activity in Somalia. According to FAO, 50% of the population's cereal requirements are met through domestic production. However, Somalia's farms are mainly rain-fed and crop production is determined by rainfall. The inter-riverine area between the Shabelle and Juba river valleys have high potential for crop production which will reduce the food insecurity of the country. Therefore, to improve the livelihoods of the agro-pastoralists, agriculturalists as well as enhance food security of the country the policy is:

Policy Statements

The government shall:

- 1) Strengthen institutional capacity of national and federal states of the relevant authorities such as Ministries of Agriculture;
- 2) Strengthen household resilience and reduce hunger and malnutrition, including by introducing more modern postharvest longterm storage technologies and drought risk mitigation.
- 3) Safeguard and expand drought resistant plants such as YICIB; HOHOB etc;
- 4) Increase crop production beyond prewar levels, through full rehabilitation of prewar public infrastructure and adoption of improved technologies and climate-smart agriculture practices.
- 5) Improve and rehabilitate productive agricultural infrastructures and expand overall irrigation infrastructure (canals etc);
- 6) Increase agricultural production through the adoption of mechanized agricultural schemes, modern and appropriate agricultural technologies and plan irrigation cropping;
- 7) Support rain-fed farming that is environmental viable, given the implications of climate change;
- 8) Safeguard human and environmental health by producing adequate regulation of agricultural (crop and livestock) chemicals;
- 9) Promote the use of appropriate organic matter and nutrient management for improving soil structure, nutrient status and microbiology in improving soil conservation and land husbandry;
- 10) Reduce overstocking and overgrazing which are the cause of declining fertility of pastures;
- 11) Reserve the country's most fertile irrigable land for grain production rather than cash cropping such as bananas;
- 12) Develop a plan to investigate or prevent crop pests such as locusts and other pests.

4.2. Livestock

Livestock is the backbone of the Somali economy and contributes more than crop production. It contributes 60% of the gross domestic product (GDP) and about three-fifths of Somalia's foreign exchange earnings. The livestock population in Somalia is estimated to be around 55.7 Million animal

heads, in which 13 of them are sheep, 30.5 goats, 6.6 camels and 5.5 cattle (FAO/FSNAU-MoLFR, 2019).

It is estimated that around 49% of the Somali population are classified as pastoralists and agro-pastoralists (UNFPA, 2015). 65% of the population (both in rural and urban areas) derive their livelihoods from the livestock sector. This national wealth is coming under increasing threat due to water shortages, lack of availability of and access to good pasture, invasion of unpalatable plant species, deforestation and other forms of land degradation, animal diseases, and natural shocks, such as drought.

Policy Statements

The government shall:

- 1) Strengthen the institutional capacity and infrastructure of the Livestock Sector;
- 2) Promote research, continuous professional development, and strengthening of institutional capacity (public and private) for service delivery;
- 3) Improve animal health service delivery and establish health care centres to protect the country's herd;
- 4) Improve veterinary public health services to protect and safeguard consumers, locally and internationally;
- 5) Build capacity along the entire value chain to cope with animal disease threats, coupled with open and regular dialogue with importing countries to review and update sanitary standards and other import requirements;
- 6) Improve livestock health services and increase the productivity of the small holders and large producers;
- 7) Promote innovative breeding and good husbandry practices
- 8) Enhance livestock and livestock products trade (in local, regional and international Markets);
- 9) Promote private sector-led value addition and processing of animal products
- 10) Establish efficient feed supply chain by strengthening rangeland use policies, planning, and enforcement, with community participation;
- 11) Improve the national food security and food safety systems within the livestock sector.
- 12) Enhance knowledge of animal husbandry;

4.3. Forestry

In 1985 Somalia was the world's largest source of incense, and produced over 2,000 tonnes. Forestry has usually accounted for about 2.5 per cent of GDP. Vegetation cover is also important in the country and region in terms of stabilising soils, preventing erosion and encouraging ground water absorption. This is especially important in areas which endure high levels of grazing since apart from direct grazing pressure, movement of livestock over barren or fragile soils easily leads to erosion or compaction of the surface soils.

Policy Statements

The government shall:

- 1) Fully implement the National Charcoal Policy of Somalia;
- 2) Develop forestry development strategies and set out the best practices of utilizing forest resources;
- 3) Promote the production and marketing of incense, as well as other health-related plants and their businesses.
- 4) Carry out a study of the plants in Somalia and identify indigenous plants. This will prevent others from claiming the plants unique to Somalia (prevent Biopiracy).
- 5) Establish system for range, forest and wildlife management;
- 6) Place charcoal production under strict control by building the capacity of the relevant authorities to control illegal production and enforce regulations;
- 7) Promote alternative fuels and encourage the use of fuel-efficient stoves and improved cooking practices, with particular focus on urban centres where cooking gas cylinders could provide a viable alternative;
- 8) Promote the use of solar stove in rural and urban areas and introduce appropriate training programmes;
- 9) Mobilize communities and ensure the acceptance of local responsibility for the management of forest and woodland resources;
- 10) In consultation with Federal Member States, establish forest conservation teams in all states under the state environmental agencies/ministries, especially for areas where charcoal production is threatening land productivity;
- 11) Promote improved tree management (restoration, planting, management) both around the homes, on rangelands, and along rivers;
- 12) Establish communal tree/plant nurseries and plant trees in public areas such as schools, roads, universities, hospitals, ministries etc;
- 13) Require that every household plants a tree in front of their home;
- 14) With the exception of invasive plants, prohibit the cutting of trees.

4.4. Wildlife

Somalia has been home to diverse flora and fauna, from birds to elephants, lions, reptiles and other wildlife animals. However, over the last three decades, the national wildlife heritage of Somalia has seriously declined from the loss of habitat, illegal hunting, wars and the reduction and degradation of the natural vegetation cover of the country which has led to the migration of Somalia's wildlife (such as elephants) to migrate to neighbouring countries.

Policy Statements

The government shall:

- 1) Carry out a study of the wildlife situation of the country and the wildlife species of the country;
- 2) Ban the capture, killing and poaching of all species of wildlife in Somalia;
- 3) Ban the export of native wildlife species of Somalia;
- 4) Punish citizens or foreigners who engage poaching or export of wildlife;
- 5) Establish wildlife reserve areas (national parks)

4.5. Water Resources

Somalia is to a large degree an arid or semi-arid country where rainfall is periodic and irregular. Therefore, good water management is essential.

Policy Statements

The government shall:

- 1) Pay greater attention to fresh water sources (underground water, rivers) of the country and improve water harvesting and water use efficiency, collection of rain water, improved urban water use efficiency and distribution;
- 2) Increase water availability in rural areas by constructing and rehabilitating water wells and water storage facilities;
- 3) Assess and plan for the two permanent rivers (Shabelle and Juba) in terms of potentially competing demands (e.g. irrigation, human and animal consumption);
- 4) Safeguard the quality of fresh water sources from water pollution;
- 5) Ensure that any proposed dams or projects near or on the two rivers be subjected to environmental impact assessment process and include a detailed cost and benefit analysis;
- 6) The water of the valleys should be utilized by constructing dams. Too much water goes into the sea without benefit.
- 7) Conduct a study and assess the water resources of Somalia;
- 8) Establish an early warning system in order to prevent river floods, and collaborate with neighboring countries;
- 9) Prevent the dumping of waste into the rivers and repair the bottom and banks of the rivers.
- 10) Adopt water harvest technologies to increase water availability and crop production;

4.6. Marine Resources

The Somali maritime zone is one of the largest in the western Indian Ocean and has one of the most important large marine ecosystems. The country has the longest coastline (3333 km) in Africa. To conserve and sustainably utilize the marine resources of the country, the policy is:

Policy Statements

The government shall:

- 1) Safeguard the territorial waters of Somalia by urgently taking measures against illegal fishing by foreign vessels, including the ability to be able to patrol these waters safely and effectively;
- 2) Investigate the disposal of toxic waste in the Somali territorial waters and come up with an action plan to deal with the issue. The toxic waste is a health risk to the people, animals, biodiversity and the entire environment;
- 3) Establish Somali Maritime Administration/Authority in compliance with the constitution;
- 4) Harvest living aquatic resources within their sustainable limits;
- 5) Provide effective and adequate support to help private sector development and expansion in fisheries in sustainable manner;
- 6) Protect marine and coastal wildlife species;
- 7) Promote sustainable fisheries development through the development of fisheries management plans at all levels;
- 8) Establish a clear and effective system of fishery management, at both the federal and state levels;
- 9) Review the catch, processing and export management process to regulate over-fishing and improve the processing efficiency and retail value for marketable products;
- 10) Control the exploitation of marine resources and protect the sea bottom from being damaged by heavy trawls;
- 11) Given the effects of climate change and the recurrent droughts in the country, attach high priority to the fishing sector by encouraging nomadic communities settle along the coast and train them as fishermen;
- 12) Assist small-scale fishermen by investing in freezer trucks, boats and fishing gear in order to improve catch methods and minimize post-harvest losses of fish catches;
- 13) Establish marine protected areas, some of which should at least focus on providing sanctuary to breeding stocks of threatened species such as lobsters;
- 14) Give priority attention to the protection of the coral reefs, islands and mangrove swamps;
- 15) Build and strengthen the capacity of the state sector fishing agencies to regulate and administer environmental protection in view of the increased role of the private sector and of possible foreign investment in the fishing sector of Somalia;
- 16) Prevent unsustainable offshore fisheries and indiscriminate exploitation of lobster and shark resources by artisanal fishermen;
- 17) Establish fisheries hygiene and sanitation standards and issue certificates of fish quality and hygiene.

4.7. Mineral Resources

Somalia has an untapped natural resources. Despite the presence of valuable mineral deposits, Somalia's mineral sector has traditionally played only a small role in the country's overall economy – in 1988 it

represented just 0.3 per cent of total GDP. In order to grow the economy and improve the lives of the Somali people, exploration and utilization of the mineral resources are indispensable.

Policy Statements

The government shall:

- 1) Develop the mining sector in order to contribute significantly to sustainable national economic and social growth;
- 2) Subject all major projects related to minerals to environmental impact assessment process prior to the commencement of the project and include the costs and benefits of exploiting the resources;
- 3) Adopt long-term usability of the land and safeguard it from the outset so that with due care during and following the mining activities, it can still be used for agriculture and/or other economic activities;
- 4) Encourage, support, advise and train small-scale miners and mining communities to practice mining which is organized and responsible so as to be consistent with environmental laws, rules and regulations and to safeguard the well-being of the land and its other natural resources;
- 5) Strengthen the capacity of the state sector mining agencies to regulate and administer environmental protection in view of the increased role of the private sector and of possible foreign investment in large-scale mining;
- 6) Implement continuous programmes of education for the public and industry, environmental monitoring, and the provision of technical advice and assistance in environmental management during mining operations;
- 7) 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;
- 8) To include in mining contracts a requirement that mining operations prepare environmental impact studies and undertake appropriate mitigation and reclamation measures;
- 9) 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 Sector

Seismic surveys conducted suggest that Somalia has promising offshore oil reserves. Total offshore deposits are estimated to be as high as 100 billion barrels. This significant hydrocarbon opportunity has a huge potential to attract foreign investment (who have already showed interest). On the other hand,

exploitation of petroleum has significant impact on the environment. It is, therefore, essential to ensure the protection of the environment and hold accountable those who damage it.

Policy Statements

The government shall:

- 1) To ensure that petroleum exploration, a new industry in the country, takes advantage of challenges experienced in other oil producing African countries and conforms with existing and new environmental protection regulations;
- 2) To promote the sound management of the petroleum resources of the country;
- 3) Prepare a National Petroleum Policy (NPP) which guides the oil and gas sectors, refining and petrochemicals industry;
- 4) Ensure that the NPP, Petroleum Law of 2019 and other laws related to the sector are implemented in a manner consistent with the National Environmental Policy;
- 5) Ensure that international oil companies engaged in exploration or exploitation of the oil and natural gas deposits of Somalia be subjected to environmental impact assessments;
- 6) Protect the environment and ensure that any damage to humans and the environment be compensated by petroleum companies engaged in the exploration or drilling operations;
- 7) To initiate, formulate and review policies and strategies for the development of the petroleum sub-sector.
- 8) To ensure optimal operations of the petroleum resource consistent with sound technical, economic and environmental practices in the international petroleum industry.

4.9. Energy Resources

The energy mix in Somalia is reliant upon locally available charcoal and firewood as the core sources of energy, meeting nearly 80 to 90% of the energy needs of the whole country and resulting in excessive exploitation of these primary sources. Annual consumption of charcoal is estimated at around 4 million tons per year, equivalent to about 400 kg/capita/annum, a rate that is fast exhausting Somali's few forests. On the other hand, renewable energy potential is abundant. Renewable and alternative energy sources, such as solar, wind power, biogas, liquidified petroleum/natural gas, geothermal present substantive opportunities to diversify and expand the energy infrastructure systems of Somalia but so far has not been harnessed, due to both security and funding problems.

Somalia has a high potential of wind, solar and fossil fuel energy. They should fully be explored, promoted and utilized properly.

Therefore, to diversify the energy sources of Somalia, the policies are:

Policy Statements

The government shall:

- 1) Develop both fossil and renewable energy resources by promoting private sector investments;
- 2) Exploit in an environmentally compatible manner the unexploited energy sources of the country in order to meet Somalia's energy demands;
- 3) Promote the development of renewable energy sources and reduce the use of fossil energy resources both for ensuring sustainability and for protecting the environment, as well as for their continuation into the future;
- 4) Review current urban energy providers and ensure that their activities are compatible with environmental standards;
- 5) Adopt the framework for regulating the energy sector, given its importance and the impact on the environment;
- 6) Establish standards for utilities, energy safety and management, and quality control;
- 7) Conduct ecological studies and mapping before energy production and exploitation;
- 8) Control the quality of imported fuels in order to minimize pollution as well as damage to equipment and human health;
- 9) Promote energy storage facilities and ensure access to energy throughout the year;
- 10) Ensure the availability of cheap energy and minimize the reliance on charcoal.

4.10. Rangeland

Rangeland is an extensive area of land that is occupied by native vegetation such as grass (tall and short grass), herbs, shrubs, savannas and sparse trees, which are grazed by domestic or wild animals. Temperate and tropical forests that are used for grazing as well as timber production can also be considered rangeland.

Rangelands are distinguished from pastureland by the presence on them of native vegetation, rather than of plants established by human societies. They are also managed by the controlling the number of animals grazing on them. This is known as Range Management. It is to ensure a sustained yield of rangeland products while protecting and improving the basic range resources of soil, water, and plant and animal life. Besides producing forage for domestic and wild animals, a range can provide timber, minerals, natural beauty, and recreational opportunities.

Range-management practices centre on the regulation of the number of animals allowed to graze on a given range, along with the duration and season of their grazing. The stocking of a range must be carefully regulated so that the existing grasses are not depleted or exhausted from overgrazing. Indeed, the most pernicious and chronic problem in the management of ranges is overgrazing. Overgrazing of the vegetation reduces the production of forage; exposes the soil to sealing, baking, and erosion; reduces the infiltration of water into the soil; increases water runoff and flooding.

Overgrazing is a major problem in Somalia as well. Moreover, severe deforestation and other environmental degradation of rangelands already threaten the viability of both the livestock and crop subsectors. It reflects unregulated human activity and overgrazing as well as low and erratic rainfall and diminishing water flows in major rivers.

In Somalia, the first range management was launched in 1976. The National Range Agency (NRA) was established in 1976, as an autonomous agency to design and implement a national range development strategy. Attempts were made to manage rangelands, increase productivity of livestock and enhance the resilience of the Somali people. Since the collapse of the government, range management has been non-existent. Therefore, the policies are:

Policy Statements

The government shall:

- 1) Plan and develop national range management;
- 2) Establish grazing and drought reserves;
- 3) Develop fodder (forage) production units and increase livestock productivity;
- 4) Promote organizations for guiding and educating livestock owners in producing animal food;
- 5) Initiate non-formal education at all levels in order to create a dialogue with the pastoralists;
- 6) Map the rangelands and classify rangeland areas.
- 7) Gaining the confidence and cooperation of the pastoralists by establishing a dialogue with them through non-formal training;
- 8) Strengthen the Federal Ministry of Livestock, Forestry, and Rangeland and Federal Member State Counter-parts in order to be able to implement range development by training staff at all levels and providing senior technical staff for the departments of administration, range and environment and forestry.
- 9) Restore in government hand the pre-1991 grazing and reserve areas of the country.

Chapter Five

Cross-sectoral policies

5.1. Air Pollution

Air pollution can have adverse impacts on human health, as well the the environment. Major sources of outdoor pollution in Somalia are:

- 1) Fuel combustion from motor vehicles (e.g. cars and heavy-duty vehicles)
- 2) Power generation (e.g. fuel generators for electricity)
- 3) Municipal waste sites and waste burning

In order to minimize the risks of air pollution to the people and environment of Somalia, the policy is:

Policy Statements

The government shall:

- 1) Set emission standards and strengthen the monitoring and enforcement of emission standards for fuel combustion and other pollution sources;
- 2) Prepare and implement action plans for major cities for addressing air pollution;
- 3) Formulate a national strategy for urban transport to ensure adequate investment, public and private, in low pollution mass transport systems;
- 4) Manage municipal waste in accordance with the waste management policy and laws (to be prepared and enacted);
- 5) Regulate importation of vehicles as too old vehicles are often imported.

5.2. Water Pollution

The direct and indirect causes of pollution of surface (river, wetlands) water sources, groundwater, and coastal areas have accelerated due to the lack of appropriate waste management system. The policy is:

Policy Statements

The government shall:

- 1) Increase access to safe water supply in urban and rural areas through a coordinated approach and achieve high coverage of piped water in line with the national and international goals and targets (Sustainable Development Goals);
- 2) Build and enhance the capacities of municipalities for recovery of user charges for water and sewage systems;
- 3) Prepare and implement action plans for major cities for addressing water pollution, treatment, reuse, and recycle where applicable, of sewage and waste water from municipal and industrial sources, before final discharge to water bodies;

- 4) Take measures to prevent pollution of water bodies from other sources, especially waste disposal on lands;
- 5) Enhance capacities for spatial planning among the State and Local Governments, with adequate participation by local communities, to ensure clustering of polluting industries to facilitate setting up of common effluent treatment plants, to be operated on cost recovery basis;
- 6) Regulate agricultural inputs, especially pesticides and other chemicals taking explicit account of the potential pollution such chemicals may cause to groundwater and other sources of fresh water;

5.3. Noise Pollution, Radiation, Electromagnetic & Chemicals

Excessive and unwanted noise, particularly in residential areas, can damage people's health and the quality of their domestic life. It is recognized that noise pollution is a threat to urban health. The lack of rule of law in Somalia in the last three decades meant the emergence of unregulated marketplace. As a result, businesses and industries that emit excessive noise have been established in residential areas and city/town centres.

Likewise, there are radiation and electromagnetics that are generated by telecommunications towers in urban areas, especially in residential areas. These devices can pose a health risk to the people. Also, chemicals should be kept away from public places.

The policy is:

Policy Statements

The government shall:

- 1) Make appropriate distinctions between different environments in terms of setting ambient noise standards, e.g. rural vs urban; power generators vs residential areas, garages vs residential areas, educational and medical establishments versus other areas, night-time versus day time in residential areas, areas in the vicinity of road, airport infrastructure, and protected areas, etc;
- 2) Distinguish between noise standards in the context of occupational exposure (with protection measures), and environmental exposure to third parties;
- 3) Include ambient noise as among the environmental quality parameters to be routinely monitored in specified urban areas;
- 4) To stop (and remove already installed ones) the installation of telecommunication towers in urban centres (particularly residential areas) which pose health risks to the people. It is important to ensure that the telecommunication equipments in the country are aligned with internationally accepted radiation standards;
- 5) Protect the environment from chemicals that can harm humans and animals;

- 6) Maintain hygiene in public places and prohibit the release of chemicals and other substances such as burned automobile oil and the like.

5.4. Waste Management

The World Bank roughly estimates that urban areas of Somalia generate over 1,500 tons of solid waste per day. Solid and liquid waste are major issues across urban areas of the country. In Somalia, uncollected waste are scattered across neighborhoods and in public spaces. Hazardous and non-hazardous waste are dumped in one place. Lack of proper waste management poses health risks and affects the environment. A well managed waste collection and disposal are needed to deal with waste.

Policy Statements

The government shall:

- 1) Undertake a study of the solid waste situation in key urban areas and propose appropriate recommendations to be implemented to address the issue;
- 2) Assist the relevant Somali institutions in developing their capacity in hazardous waste management, including monitoring, containment, handling and clean-up;
- 3) Carry out a comprehensive investigation of the toxic waste dumps on land, and the dumping of toxic waste at the sea;
- 4) Review the locations of existing factories and their waste disposal and/or treatment and sources of potential pollution to the environment;
- 5) Create a proper sewage system in order to prevent seepage of waste in to the marine, underground and surface waters;
- 6) Ensure that there is a solid and liquid management system whereby human and household waste are disposed off safely;
- 7) Recognize the health dangers of disposal sites that are generally close to dwellings and water sources and relocate them to a safe space;
- 8) Ban the use of light-weight single use plastic products and promote alternatives for plastic bags by encouraging the establishment of recycling factors;
- 9) Enhance re-use and recycling systems to reduce the amount of waste generated in urban areas;
- 10) Establish landfill disposal sites.
- 11) Educate the population to raise awareness and prevent improper waste disposal;
- 12) Investigate hazardous toxic waste buried on land. Due to the absence of rule of law, waste has been dispersed all over the country.

5.5. Land Degradation

The degradation of land, through soil erosion, pollution, and reduction in organic matter content has several proximate and underlying causes. The proximate causes include loss of forest and tree cover, unsustainable grazing, improper use of agricultural chemicals and domestic wastes on productive land. To rehabilitate the land and protect from further degradation, the policy is:

Policy Statements

The government shall:

- 1) Control soil erosion through community participation and the establishment of rangelands in order to allow affected lands to recover from overgrazing;
- 2) Control charcoal production, in accordance with the National Charcoal Policy, by making the necessary arrangements to transition Somalia from charcoal dependency to alternative sources of energy and livelihoods;
- 3) Take measures and promote country-wide afforestation programme to plant trees on barren lands, create forest and reverse the current deforestation rate in the country;
- 4) Conserve water through the construction of water barriers such as rock walls or rock dams to slow the water flow;
- 5) Improve the fertility of the land to ready them for planting trees, shrubs and grasses; and improving selected rangelands by diverting water from roads onto them;
- 6) Give greater emphasis to improved land-use planning, the establishment of range resource management plans and the control of soil erosion;
- 7) Rehabilitate the degraded land and restore the ecosystem that has been lost due desertification by introducing enclosures and planting native trees;
- 8) Develop and implement national standards, principles and criteria of sustainable forest management.

5.6. Biodiversity

Somalia has been the evolutionary centre of fauna and flora adapted to the climate conditions of the country. There was an abundance and diversity of wildlife and the country had a reputation of being one of the best wildlife havens in Africa. This, however, is no longer the case. Ruthless overexploitation has meant that many of the country's wildlife species are now endangered or rare, while key ecosystems have been seriously degraded. Currently, the status of wildlife in Somalia is reported as being sparse and scattered due to a combination of destruction of wildlife habitat, livestock grazing, illegal hunting or poaching. Now only small remnant pockets of wildlife exist, with many species approaching extinction. In order to protect the biodiversity of the country, the policy is:

Policy Statements

The government shall:

- 1) Safeguard the biodiversity through the protection of important coral reefs, seabird colonies, turtle nesting beaches, seagrass beds and seabird nesting sites;
- 2) Recognize the dangers of invasive species and develop and implement a strategy to contain, control and mitigate alien and invasive species;
- 3) Involve and empower communities in instituting measures for prevention, eradication and control of invasive species that are harming the environment and taking over fertile lands;
- 4) Create forest reserves and afforestation programmes to enhance the chances of lost wildlife returning and protect their habitat;
- 5) Take into consideration the need to conserve and create biodiversity conservation corridors when undertaking land use and environmental management planning;
- 6) Protect the wildlife habitat by forbidding illegal hunting and poaching;

5.7. Research & Development

In order to rapidly advance scientific understanding of environmental issues, it is necessary to promote properly focussed research by competent institutions. A continuous engagement with the scientific community, in government, academic, and private institutions, will provide important insights for policy making and regulation, including in the field of multilateral negotiations, and help realize deeper and broader skills in the scientific community.

The policy is to periodically identify and prioritize areas for research:

Policy Statements

The government shall:

- 1) Conduct a nation-wide study of the general environmental situation of Somalia and especially the deforestation of plants and extinction of animals. The research will contribute to identifying the environmental situation/challenges of the country and the appropriate measures to be taken in order to tackle them.
- 2) Establish a research programme in priority areas within the Government, with expected outputs clearly specified;
- 3) Encourage research in priority areas outside the Government, with necessary financial and institutional support.
- 4) Establish research and innovation technologies centers to study the state of the environment, the effects of human activities and how to prepare and adopt to those effects.
- 5) In collaboration with the international research centre(s), conduct an in-depth nation-wide study of hazardous waste in the country: sea and land (many of which have been illegally dumped or buried).

5.8. Cultural and Natural Heritage

Every country has its own history and culture. Somalia has many natural and man-made heritage sites and a deep-rooted culture. These heritage sites are part of the Somali environment and needs to be preserved and protected. The policy of the government is:

Policy Statements

The government shall:

- 1) Promote awareness among the population regarding the protection and conservation of the heritage of the country;
- 2) Ensure that tourism does not damage the environment including historic sites and the natural environment (e.g. forest);
- 3) Ensure that the environment of heritage sites is so managed as to protect the landscape, the monuments, and the artifacts.
- 4) Recognize that the country's heritage conservation should not be seen as the responsibility of government alone but also that of every one.
- 5) Collaborate with local organizations involved in the protection of the natural heritage of the country.

5.9. Clean Technologies and Innovation

Clean technologies harness renewable energy sources. These are innovations that reduce waste or emissions and use resources in a sustainable manner to reduce negative environmental impacts. The world is shifting towards clean technologies from electric cars to solar and wind energy. Somalia has plenty of sun and wind and hence can generate significant energy from these renewable sources.

Policy Statements

The government shall:

- 1) Encourage and support capacity building in all sectors of the economy in adopting clean technology switchover project proposals;
- 2) Set up a mechanism to network local technology research institutions, foreign research institutions, public and private, for cooperation in technology research and development and adaptation, information, and evaluation of clean technologies;
- 3) Promote adoption of clean technologies by industries;
- 4) Promote innovation in green technology and encourage the opportunity to transition to green economy.

5.10. Climate Change

Somalia is susceptible to climate-related events such as droughts and floods, which pose a serious threat to the socio-economic development of the country. Recurrent drought is reducing livestock numbers, causing the depletion of water sources; decreasing agricultural yields, and causing an overall decline in both livestock and agricultural production. The adverse effects of climate change have exacerbated the rate of environmental degradation.

Climate change is one of the main challenges facing the globe this century. Scientists agree that climate change poses many serious and damaging effects on humans and the environment in the coming decades. To mitigate the effects of climate change, global action is required particularly from industrialized countries releasing greenhouse gases (GHG) into the atmosphere.

Somalia has limited adaptive capacity to the impacts of climate change. The country's continued vulnerability to climate change and the threat this poses to achieving long-term development goals should thus been recognized. The country is most vulnerable to climate variability and changes due to, among others, its high dependence on rain-fed agro-pastoral practices and natural resources. Due to its low adaptive capacity, Somalia is among the most vulnerable nations to climate change. The country has frequently experienced extreme events like droughts and floods, and other climate-related hazards.

Policy Statements

The Government shall:

- 1) Develop and implement a comprehensive National Climate Change Policy (draft version available).
- 2) Mainstream climate change into the federal government, state, regions, and districts, and local level planning processes, including national development policies and plans,
- 3) Establish the institutional framework and strengthen capacity for Federal and State level institutions to support climate resilience and mainstream climate change in all sectors of the economy
- 4) Develop and implement awareness raising strategies and capacity development on the opportunities for adaptation and mitigation measures as per the National Climate Change Policy.
- 5) Build, invest and strengthen research and development capacity on climate change and related environmental issues.
- 6) Involve and empower communities in mitigating and adapting to climate change through education and public awareness.
- 7) Develop strategy to manage natural disasters.

5.11. Disaster Management and Emergency Preparedness

The number and intensity of crisis, natural or man-made, is escalating year by year. Frequent droughts, flooding and storms are some of the major natural disasters facing Somalia. To deal with these crisis, the country needs an emergency and disaster planning, build its capacity to predict and, where possible prevent disasters, reduce their impact as well as respond to and cope with their consequences.

Policy Statements

The Government shall:

1. Strengthen the capacities at state, regional, district and village levels required for effective disaster preparedness.
2. Improve coordination at all levels by adopting an emergency and disaster planning document which outlines the specific tasks and responsibilities of all stakeholders.
3. To design effective disaster preparedness programs, the government shall identify those persons, communities and households most at risk to disaster through assessment and analysis of risks, vulnerabilities and capacities.
4. Raise awareness of disaster hazards through public education and media encouraging vulnerable people to take preventative and mitigating actions where possible before disaster strikes.
5. Strengthen and enhance early warning and response systems for climate and disaster risk reduction by establishing knowledge management and access to information.
6. Improve the ability of vulnerable communities to cope with disasters through community based disaster preparedness strategies that build on existing structures, practices, skills and coping mechanisms.
7. Strive to provide the financial, material and human resources required to carry out appropriate and sustainable disaster preparedness activities.

5.12. Gender and Environment

Gender plays an important role in the management of the environment. Different social groups and demographics are impacted differently by environmental challenges. They also play unique roles in managing the environment given their unique capabilities, experiences and knowledge relating to the environment. Access to and ownership of natural resources should be enhanced for all gender, people living with disabilities, marginalised and minority groups.

Policy Statements

The Government shall:

- 1) Integrate environment related issues into economic policies and action plans that address the needs of vulnerable groups
- 2) Facilitate the participation of women across all sections of society in training, public awareness campaigns, formal and informal education and decision making in environment and resource management.
- 3) Mainstream gender and equity in all sustainable development policies.
- 4) Make environmental awareness and public education programmes include both men and women in all social, economic and cultural groupings of society;

Chapter Six

Environmental Instruments

6.1. Environmental Standards

Environmental standards are regulations that prescribe standards for environmental matters. They refer both to the acceptable levels of specified environmental quality parameters at different categories of locations (“ambient standards”), as well as permissible levels of discharges of specified waste streams by different classes of activities (“emission standards”). Emissions and ambient standards for each class of activity needs to be based on general availability of the required technologies, the feasibility of achieving the applicable environmental quality standards at the location (specific or category) concerned with the proposed emissions standards, and the likely unit costs of meeting the proposed standard.

Policy statements

The government shall prepare and enact the following regulations:

- National Environmental Standards for Air Quality
- National Environmental Standard for Sources of Drinking Water
- National Environmental Standards for Telecommunication Facilities (equipments: towers, antennas etc)
- National Environmental Standards for Marine aquaculture
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
- National Environmental Standards for Plantation Forestry

6.2. Environmental Impact Assessment

Environmental Impact Assessment (EIA) is a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment. It will be the principal methodology for appraising and reviewing new projects.

Generally, an Environmental Impact Assessment should provide answers to such questions as:-

1. What will be the key impacts on the environment?
2. Who will be affected by them and by how much?
3. How should the development be modified to remove or reduce these impacts?

The policy is:

Policy Statements

The government shall:

- 1) Require that public and private projects that are likely to have significant effects on the environment be made subject to an assessment prior to Development Consent or licence to proceed with the project.
- 2) Investigate and predict the effects of a development project on the environment before any decision is made to go ahead with the development;
- 3) Introduce changes into the design process of a development project;
- 4) Ensure that everyone is involved - the developer, people living and working in the area and the decision takers - understands the likely effects of the development; in this way it ensures that the final decision on the development project is taken with full knowledge of the environmental consequences.
- 5) To avoid or minimize unexpected negative effects on health, the EIA shall also include environmental health impact assessment (EHIA) outlining the possible health risks to the people.

6.3. Environmental Awareness, Education, and Information

Enhancing environmental awareness is essential to harmonize patterns of individual behaviour with the requirements of environmental conservation. This would minimize the demands placed on the monitoring and enforcement regimes; in fact, large scale non-compliance would simply overwhelm any feasible regulatory machinery. Awareness relates to the general public, as well as specific sections, e.g. the youth, adolescents, urban dwellers, industrial and construction workers, municipal and other public employees, etc. Awareness involves not only internalization of environmentally responsible behaviour, but also enhanced understanding of the impacts of irresponsible actions, including to public health, living conditions, sanitation, and livelihood prospects.

Environmental education is the principal means of enhancing such awareness, both among the public at large, and among focused groups. Such education may be formal, or informal, or a combination of both. It may rely on educational institutions at different levels and various other formal and informal settings.

Access to environmental information is the principal means by which environmentally conscious stakeholders may evaluate compliance by the concerned parties with environmental standards, legal requirements, and agreements. They would thereby be enabled to stimulate necessary enforcement actions, and through censure, motivate compliance. Access to information is also necessary to ensure effective, informed participation by potentially impacted publics in various consultation processes, such as for preparation of environmental impact assessments, and environment management plans of development projects. The policy is:

Policy Statements

The government shall:

- 1) Develop and operate an online, real time, publicly accessible environmental information system to provide all relevant information on key environmental resources make data available in convenient format;
- 2) Mainstream scientifically valid environment content in the curricula of formal education, at primary, secondary, tertiary, and professional levels, focusing on the content appropriate at each stage;
- 3) Prepare and implement a strategy for enhancing environmental awareness among the general public, and special groups, by professional production and airing of information products through diverse media catering to the different target groups;
- 4) Organize public environmental awareness raising and advocacy through training, meetings and media events;
- 5) Establish an environmental database, keeping record of environmental hazardous waste incidents;
- 6) Provide support to communities in resolving resource-based conflicts;
- 7) Monitor and document environmental change; and
- 8) Involve the communities in decisions relating to future intended development and management of any existing or intended protected area systems;

6.4. Partnerships and Stakeholder Involvement

Conservation of the environment requires the participation of multiple stakeholders, who may bring to bear their respective resources, competencies, and perspectives, so that the outcomes of partnerships are superior to those of each acting alone. Implementing and policy making agencies of the Government, at Federal, State, Municipal, and District levels; the executive, legislatures and judiciary; the public and private corporate sectors; financial institutions; industry associations; academic and research institutions; independent professionals and experts; the media; youth clubs; community based organizations; voluntary organizations; and multilateral and bilateral development partners, may each play important roles in partnerships for the formulation, implementation, and promotion of measures for environmental conservation. Therefore, the policy is:

Policy Statements

The government shall:

- 1) Encourage Public-Community Partnerships, by which public agencies and local communities cooperate in the management of a given environmental resource, each partner bringing agreed resources, assuming specified responsibilities, and with defined entitlements, e.g. Joint Forestry Management;
- 2) Encourage and promote community initiatives for example tree planting , rangeland management and protected areas and gazing sensitive ecological areas;

- 3) Carry out all partnerships are realized through, and are carried out in terms of the principles of good governance, in particular, transparency, accountability, cost-effectiveness, and efficiency.
- 4) Youth constitute the most vibrant segment of the country's population. To harness their strength and channel it for the protection and conservation of environment. They also need to be involved in relevant stakeholder participation.
- 5) Encourage the application of the long-standing indigenous knowledge of the Somali people in protecting the environment.

6.5. Capacity Building

The multi-stakeholder character of environmental issues and continuous developments in the field of environment, make it necessary to have a continuing focus on capacity building in all concerned institutions: public, private, voluntary, academic, research, and the media. The policy is:

Policy Statements

The government shall:

- 1) Develop an early warning system or systems to help identify potential threats to the environment and people's livelihoods;
- 2) Provide training to develop national capabilities in conservation;
- 3) Draw up management plans with the local communities to enable them to participate in the management of protected areas in a more sustainable manner;
- 4) Build the national capacity to deal with an oil pollution incident of any magnitude, which is a concern given the ecological importance of marine and coastal ecosystems in Somalia;
- 5) Review the present institutional capacities at the Federal and State levels, in respect of enforcement of environmental laws and regulations;
- 6) Ensure the continuous upgrade of knowledge and skills of the scientific and technical personnel involved in environmental management in public institutions at all levels: Federal, State, Regional, District and Village through dedicated capacity building programs.

6.6. International Cooperation

In the period prior to 1991, Somalia has participated in a number of major international environmental agreements. Moreover, Somalia signed up to more conventions related to the environment in recent years. The country has signed and/or ratified several key multilateral agreements on environmental issues in recognition of the transboundary nature of several environmental problems. The following is a list of the conventions that Somalia has ratified and/or signed:

1. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
2. Convention on the Conservation of Migratory Species of Wild Animals;
3. Regional Convention for the Conservation of the Red Sea and the Gulf of Aden Environment;

4. Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substance in Cases of Emergency;
5. UN Convention on the Law of the Sea;
6. UN Convention to combat desertification (UNCCD);
7. UN Framework Convention on Climate Change (UNFCCC);
8. Kyoto Protocol to the UNFCCC;
9. Convention on Biological Diversity;
10. Protocol on Bio-Safety (Cartagena Protocol);
11. Basel, Stockholm and Rotterdam Conventions;
12. Protocol concerning Protected Areas and Wild Fauna and Flora in the Eastern Africa region;
13. Protocol concerning Co-operation on Combating Marine Pollution in cases of Emergency in the Eastern African region; and
14. Convention for the protection, Management and Development of the Marine and Coastal Environment of the Eastern Africa Region (Nairobi Convention).
15. Protocol on Substances that Deplete the Ozone layer (Montreal Protocol)
16. Convention on the protection of the Ozone Layer (Viana Convention);

Policy Statements

The government shall:

- 1) Avail of multilateral and bilateral cooperation programs, for capacity building for environmental management, particularly in relation to commitments under multilateral instruments;
- 2) Participate in mechanisms and arrangements under multilateral agreements for enhancing flows of resources for sustainable development;
- 3) Work with countries in the region in the conservation and protection of the environment and equitable use of rivers in accordance with international law;
- 4) Translate international obligations (Conventions) into the country's domestic legal system;

6.7. Policy Implementation

Any policy is only as good as its implementation. The National Environment Policy outlines a significant number of new and continuing initiatives for enhancing environmental conservation. For an effective implementation, all levels of the government, Federal, State, Regional, District and Village, have crucial roles to play. Therefore, the implementation policy is:

Policy Statements

The government shall:

1. Prepare and enact environmental legislations at Federal and State levels;

2. Review existing environmental legislations;
3. The legislations that shall be enacted include but not limited to:
 - National Environmental Management Act
 - Forestry and Wildlife Act
 - Land Management Act
 - Mineral and Petroleum Act
 - Marine Conservation Act
 - Waste (solid & liquid) Management Act
 - Water Management Act

6.8. Financing Environment Actions

A system for financing environmental protection is an integral part of the state financial system. It is a setup of economic instruments, principles and regulations governing the ways and means of collecting and distributing the financial resources to fund environmental projects. The financing of environmental investments is fundamental to achieving goals of environmental protection and improvement. However, Somalia, as a least developed country, faces economic constraints and the competition for scarce public fund is intense, and hence financial resources may flow to poverty eradication programmes rather than to environmental ones.

However, modernization of the Somali economy should be accompanied by effective investments in environmental protection. Successes in the area of sustainable development, improved quality of life and health of the Somali people can only be achieved if there is a system of financing environmental protection and natural resource management from both national and international sources of funding.

The systems and main sources of financing environmental protection in Somalia shall be the following:

1. State budget

The main responsibility for environmental protection is vested in the government by the Constitution (Central & Member states). Therefore, the policy is:

Policy Statements

The government shall:

- Allocate a percentage of the national budget to environmental protection and projects.

Environmental protection objectives cannot be met through reliance on funds only provided by the state budget. The financing has to be diversified.

2. Payments arising out of environmental charges and fines

Using the polluter/user-pays principle funds shall be raised by competent authorities (Federal Environment Directorate, State Environment Agencies, and Municipalities). Such fund are the pollution levy imposed on non-compliance discharge, non-compliance with environmental laws, licence fees, waste collection, water waste treatment and other charges. The policy is:

- To use the funds collected for environmental protection projects including but not limited to: waste water treatment facilities, sewage systems, solid waste management, enhancement of drinkable water quality and distribution, enhancement of air quality, soil protection, biodiversity and land protection.

3. Foreign financial assistance (International financial institutions)

International institutions such as the World Bank allocate funds towards environmental protection around the world. The policy is:

- To secure international foreign assistance and loans in the protection and conservation of the Somali environment.
4. Other sources (pro environmental foundations, voluntary contributions by the private sector etc)

6.9. Monitoring, Evaluation and Policy Review

We live in a rapidly changing global community. The environmental issues that are salient as of now may evolve over time, and new ones may take their place. Scientific understanding of environmental matters would advance rapidly.

The following provisions are, accordingly made for monitoring, review, updating, and renewal of the National Environment Policy:

Policy Statements

The government shall:

- 1) Undertake consultations every four years with groups of diverse stakeholders, i.e. researchers and experts, community based civil society organizations, industry associations, and voluntary organizations, and update the National Environment Policy;
- 2) In the fourth of the four-year reviews, undertake a more comprehensive examination of the scientific and policy understanding of environmental issues, redefine the Objectives and Principles, and recast the Strategic Themes for Action. An updated National Environment Policy should be the outcome.

Chapter Seven

Institutional Arrangement

The constitution is the foundation of the Federal Republic of Somalia. According to the constitution, the Somali state is composed of two levels of government: Federal and Member States levels. Both the federal and state governments play a role in environmental protection. Each has a comparative advantage in addressing particular types of environmental concerns. The constitution states “Power is given to the level of government where it is likely to be most effectively exercised”.

Environmental protections would be more successful, and environmental programs would be more cost-effective, were responsibility divided between the federal and state governments in a more justifiable manner. The federal government should concentrate its efforts in those areas where the federal government has a comparative advantage or where the separate states are unlikely to be able to address environmental concerns adequately. For instance, the federal government should take the lead in addressing interstate spillovers. Downstream and downwind jurisdictions should not be at the mercy of their upstream and upwind neighbours. On the other hand, localized environmental concerns/matters should be left to Federal Member states. It is imperative to recognize the need for a spirit of cooperation and coordination between the different levels of government.

Likewise, it is important to establish an independent Environmental Agency which, among other things, monitors all activities in the country that have an impact on the environment and provides independent information on the environment.

7.1. Ministries Responsible for the Environment

At the Federal level, the Ministry of Environment and Climate Change shall exercise overall policy, planning and implementation oversight mandate of environmental matters. The Ministry shall be the source of overall policy guidance and strategic environmental vision, which shall serve as the basis (foundation) for environmental policies and legislations of the country.

Federal member states shall have their own ministries of environment responsible for managing the environment in their respective states. They shall adopt policies and legislations that are in alignment with the national policies and legislations.

7.2. Sectoral-Ministries

Environmental management is a multi-sectoral undertaking. Its success depends on the cooperation of Government agencies/ministries responsible for various aspects of environment. Effective environmental management requires commitments to environmental protection by sector ministries. Environmental activity found in each Ministry shall constitute the basis of more intensive and effective environmental management. The Federal Ministry of Environment and Climate Change is the Federal agency entrusted with supervisory powers on all matters related to the environment.

The relevant sectoral ministries include:

1. Ministry of Energy and Water Resources;
2. Ministry of Agriculture and Irrigation;
3. Ministry of Fisheries and Marine Resources;
4. Ministry of Livestock, Forestry and Range;
5. Ministry of Minerals and Petroleum;
6. Ministry of Public Works,
7. Ministry of Ports & Marine Transport
8. Ministry of Transport & Civil Aviation
9. Ministry of Post & Telecommunication
10. Ministry of Health
11. Ministry of Education
12. Humanitarian Affairs & Disaster Management Agency