

**FEDERAL GOVERNMENT OF SOMALIA  
MINISTRY OF LIVESTOCK, FORESTRY AND RANGE**



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# **RANGELAND MANAGEMENT STRATEGY 2022 – 2032**





## FOREWORD

The need for sustainable rangeland resources management and utilization is imperative if rangelands are to provide goods and services to the ever-increasing human population. The rangelands of Somalia have continued to support over 95% of community livelihoods, and their productivity has been declining in the recent years. The rapidly increasing human population has put much pressure on rangeland resources, coupled with the globalization, trade and commerce amidst the negative impacts of climate change and variability. This has affected the rangelands resulting to downward trends in pastoral production systems. This creates the need for proper planning and use of the highly valuable rangeland resource in the rangelands of Somalia. There is increasing need to put the resource users at the central stage of management if sustainability is to be achieved and ensure proper use of natural resources. The increasing global challenges of climate change and variability has made resource utilization and governance a big challenge for nations, including Somalia, with increasing climatic events unpredictability. In the recent years, we have seen an increasing resource-based conflicts both at local, regional and international boundary shared resources. This presents the need for good state governance and proper planning of resources and management.

The rangeland of Somalia has also seen an increase in development with consequential drive towards resource use intensification, critically endangering the resource base while threatening the welfare of the future generations. The Rangelands of Somalia have been the most hit with resource overexploitation and degradation challenges, with the observed expansion of resource exploitation, infrastructural development and settlements, a consequence of the increasing population and urbanization. Sadly also, the regional instability incidences have seen refugees settled in camps within the rangelands, with many ecological and social impacts that need to be addressed.

This strategy has been technically developed to address the many aforementioned challenges, with the objective of promoting sustainable rangeland resource management for improved livelihoods of the pastoral communities in Somalia. This strategy is a step towards supporting the communities to sustainably manage their resources amidst the changing climatic conditions that has affected productivity. The strategy will help Somalia address the United Nations Framework Convention on Climate Change agreements. The strategy also directly addresses the bigger challenge for the country on land degradation, and will contribute to increasing land productivity; sustainably exploring the existing natural resources, support development and adoption of appropriate technologies; support enterprises development and marketing of rangeland products; and promotion of other sustainable livelihoods in the rangelands. We take this opportunity to invite all the relevant stakeholders to play their respective roles in ensuring the successful implementation of this noble strategy for the well-being of Somalia and its citizens.

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## PREFACE

The productivity of the rangelands of Somalia has been greatly impacted by many factors, namely; the changing climatic conditions that has seen an increase in drought and floods frequency, increasing land degradation, increasing loss of important plants that has supported pastoralism as the main livelihood, as well as other anthropological factors like increasing human population that has seen overexploitation of resources, increase in urbanization resulting to unplanned settlements in rangeland areas and insecurity challenges. The other major threat to the Rangelands of Somalia from the aforementioned issues is loss of biodiversity, critically impacting on ecosystem services. These have threatened the sustainability of rangelands resources, and created many economic and environmental challenges that need urgent attention to safeguard the well-being of the communities. Urgent measures and interventions are therefore required to protect the rangeland resources and enhance their sustainable utilization.

This strategy will address the many issues as identified in the strategic objectives, which will see the communities' benefits from the diverse rangeland resources. The rural communities have been facing many problems including high incidences of poverty and malnutrition requiring frequent relief assistance, which has never been sustainable. These scenarios require a rethink on how we can sustainably support our communities in the rangelands. The identified strategies are well anchored in the present production practices and also within the prevailing opportunities that Somali citizens can capitalize for better livelihoods.

We clearly note that the development and adoption of proven technologies for rangeland resource exploitation, management and utilization together with strengthening of governance and management at community level is an opportunity that has been identified by the strategy and needs to be explored to ensure sustainability. The Rangeland Management Strategy (RMS) is envisioned to provide a short term (3years), midterm (6years) and long-term (10 years) interventions for implementation with the support of all the stakeholders. As a government, we note that success of this strategy requires the participation of all stakeholders and development partners to help realize its objectives, and thus we call for unity and work together.

The SRMS has been well developed to fill the present gap in sustainable rangeland management, and we will seek to work tirelessly to support its implementation for the benefits of our communities and our beloved Somalia.

**Dr. Mohammed Omar Noor**

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The development of this Rangeland Management Strategy for Somalia was achieved through a participatory process with all the key stakeholders from the Federal Government of Somalia, regional governments and states who were engaged in a highly consultative and participatory process. The stakeholders engaged were from development partners, the universities, research organizations, the national, regional and community levels, whose resolute efforts, inputs and contributions culminated in its success. The processes also involved wide literature review from published and unpublished materials that were fully availed by partners and stakeholders beside the online sources. These ensured wide arrays of issues affecting the rangelands of Somalia were well captured and addressed by the strategy.

Special thanks to the ministry of Forestry and Range in the Federal Government of Somalia for supporting the whole process of data collection, consultations and information gathering. We also thank AUIBAR and IGAD/ICPALD for financing the development of this national strategy and providing technical inputs; the strategy is believed to serve as an important tool to coordinate stakeholders; advocate policy makers and mobilize resources to implement the proposed actions. Specifically, I wish to acknowledge and appreciate the efforts and commitment of the taskforce that prepared this strategy from the Directorate of Livestock, Forestry and range, the consultants who supported the process; Dr. Oscar Koech and Dr. Yazan Elhadi. Finally, I wish to thank all the Stake holders and Development Partners who participated in the development of this Strategy.

Your efforts are gratefully acknowledged.

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## ACRONYMS

ASAL	Arid and Semi-Arid Lands
AU	African Union
EIA	Environmental Impact Assessment
EWS	Early Warning System
FAO	Food and Agriculture Organization
FEWS	Famine Early Warning System
GDP	Gross Domestic Product
GDP	Gross Domestic Product
GIS	Geographic Information System
ICPALD	IGAD Center for Pastoral Areas and Livestock Development
IGAD	Intergovernmental Authority on Development
ILRI	International Livestock Research Institute
LT	Long Term
MLFR	Ministry of Livestock, Forestry and Range
MoLFR	Ministry of Livestock, Forestry and Range
MT	Medium Term
RMS	Rangeland Management Strategy
SDG	Sustainable Development Goal
SLM	Sustainable Land Management
SRM	Sustainable Rangeland Management
ST	Short Term
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USAID	US Agency for International Development
WISP	World Initiative for Sustainable Pastoralism





## EXECUTIVE SUMMARY

The Horn of Africa (HoA) has been facing many challenges from the adverse effects of climate variability and environmental change which is highly observed in the vast rangeland areas. The impact of climate variability on livelihoods has resulted in shifts in livelihoods, with consequential changes in land use and land management. This has resulted in detrimental effects on ecosystems well-being, with increasing land degradation. This scenario has heightened the vulnerability of communities to climate variability and change. To reduced vulnerability of communities to climate change impacts, will depend on effective adaptation at the regional, national and local levels, which highly relies on the development of sustainable natural resource management strategy. Somalia has vast of the rangelands in the IGAD region with over 90% being unsuitable for cultivation, but harboring diverse natural resources that support communities and offers national wealth. Regional efforts have seen the development of regional rangeland management strategic framework (RRMSF) for arid and semi-arid lands in the IGAD region with the broad objective being to achieve sustainable rangeland management in IGAD region. The strategy seeks to address challenges facing rangelands through harmonization of policies and practices among the member states, as a way of complementing the efforts of member states in sustainable rangeland management. Thus, the present development of Rangeland Management Strategy (RMS) for Somalia is to support the efforts of ensuring the rangeland resources are well managed and utilized. It is against this background that AUIBAR and IGAD/ICPALD together with the Federal Governments of Somalia, Ministry of Livestock, Range and Forestry have developed this strategy to address the rangeland issues identified by all stakeholders in a participatory manner. The strategy provides Action Plans that will provide a platform and a pathway to improve rangeland management in Somalia for the benefit of communities. The strategy looks at the social, environmental and economic and political status, as well as identifies the enablers to a successful strategy for implementation to address the challenges identified. This document cascades down the regional efforts to country specific strategies that will see an increase in land productivity and assured sustainable utilization of all the resources.

There is also increasing development with consequential drive towards resource use intensification, critically endangering the resource base while threatening the welfare of the future generations if not well planned. The Rangelands of Somalia have been the most hit with resource overexploitation and degradation challenges, with the observed expansion of resource exploitation, infrastructural development and settlements, a consequence of the increasing population and urbanization. Sadly, also, the regional instability incidences, has seen refugees settled in camps within the rangelands, with much ecological and social impacts within the region.

The broad objective of this Strategic Framework is to promote sustainable rangeland resource management and improve the livelihoods of the pastoral communities in Somalia. This is to be achieved through promotion of sustainable rangeland management by addressing challenges facing the rangelands of Somalia. The strategy also seeks to harmonize with the IGAD region RRMSF for concerted efforts in addressing livelihoods of communities in the HoA. The RMS framework has been developed with active participation of all stakeholders in Somalia with the leadership and co-ordination of the ministry of Range and Forestry that has and spear head the



process of the national rangeland management strategy development. The Ministry's vision in this policy is to promote a Sustainable and resilient Rangeland Ecosystems for increased productivity and improved Livelihoods. The mission is to provide leadership and guidance for the sustainable management of rangeland resources in Somalia in order to improve living conditions.

The action plan of the RMS comprises of the following strategic objectives and the associated summary interventions;

**Strategic objective 1:** Develop measures that promote sustainable rangeland resource management and improve on rangeland health for increased productivity. This objective addresses all the challenges and puts in place the strategies to reduce land degradation, increase land productivity, sustainable resource exploitation while conserving the existing natural resources in Somalia.

**Strategic objective 2:** Revitalize pastoral production systems by supporting policies and strategies that increase resilience of the system for better livelihoods. This objective recognizes that livestock raising and pastoralism are the primary sources of income for the majority of Somali communities. The objective address the several challenges that affect pastoralism, including the policy gaps that need to be resolved for sustainable pastoralism. The objective also identifies communities as central to managing their natural resources for enhanced pastoralism.

**Strategic objective 3:** Mainstream climate change adaptation and mitigation measures for enhanced productivity and sustainable Rangeland management. This objective addresses the many challenges of climate change and variability that has affected the communities in Somalia. The objective recognizes the roles of different actors in supporting the proposed strategies for community resilience. The proposed strategies will increase in adaptation and adoption of climate smart production practices by communities.

**Strategic objective 4:** Enhance sustainable exploitation and marketing of rangeland resources for improved livelihoods of rangeland communities. The rangelands have been for many years faced threats of over exploitation of resources, partly due to lack of appropriate technologies, increasing demands, communities' vulnerability or global trends of population increase coupled with climate change impacts. The proposed strategies will greatly contribute to enhancing sustainable production practices, raising community knowledge about the need for sustainable utilization, and increasing the value of commercial range commodities for the community's benefit.

**Strategic objective 5:** Promote sustainable alternative livelihoods in the rangelands for improved livelihoods. The rangelands are known for diverse valuable resources that need to be sustainably harvested for communities to benefits. The prevailing climatic impacts have also limited traditional production practices, and thus there is need to increase diversification of production systems to adapt top climate change and variability. The objectives explore the several alternative livelihoods that can be derived from rangeland resources, as well as how they can be promoted for long-term viability using appropriate technologies to improve the living conditions of the communities.



The above objectives seek to achieve sustainable exploitation and equitable sharing and access to rangelands resources by the communities in Somalia. The successful implementation of the strategies proposed will see an increase in rangeland health and conditions, increased productivity of plant and animals as well as increased conservation of land and water resources. The SRMS also identifies the need for requisite policies/legislations in place, as well as strategies and action plans for their implementation to support proper resource governance. It is also highly noted that it will be important to integrate statutory and customary institutions and practices and structures of resource management and utilization. This may include; community conflicts resolutions mechanism, resource sharing arrangements, livestock feeding strategies including pastoralism/mobility to key seasonal resource areas, traditional knowledge on resources and their benefits as well as community perceptions on the prevailing changes from globalization.

The need to have research strengthened and supported at local level to address production, harvesting and processing and marketing of rangeland resources is also a critical issue that the strategy identifies for Somalia. There are opportunities for local institutions to create a link with other regional and global centers in order to fill any recognized capacity and technical gaps in resource management. This process will create the confidence of informed decisions making on resource utilization strategies for the country. The need to also have a platform for multi-stakeholder sharing for learning and out-scaling is identified in the strategy for implementation.

For effective implementation of this strategy, there is need for all stakeholders to support in areas of strength, recognizing the heavy technical and financial implication during implementation. The strategy will be implemented with federal government, and line ministry working closely with the regional governments and the many development partners working in the country, with most supporting interventions that in one way contribute to addressing the many issues identified by the strategy. The ministry of range and forestry will play a key role in coordinating and guiding all partners during the implementation of the strategy, including the documentation of accomplishments, lessons learned, and obstacles for future programming and strategy review after the initial phase. Lastly, the strategy will need a well-planned resource mobilization from diverse sources for successful implementation. This will need the support of all stakeholders with prioritization of activities implementation. The strategy provides a detailed implementation framework with clear stakeholder roles and responsibilities, with the establishment of an M & E framework at all levels of implementation.





## CHAPTER ONE: INTRODUCTION

### 1.1 Background Information

Somalia is located in the northeast Africa commonly known as the Greater Horn of Africa (HOA). The country lies within latitudes 1° 40' 48" S and 12°6' N and longitudes 41° 0' E and 51°22' 12" E. The country covers an area of about 636,240 Km<sup>2</sup>. The country neighbours Djibouti in the northwest, Ethiopia in the west, and Kenya in the southwest while bounded by the Gulf of Aden in the north and Indian Ocean in the east.

The climatic condition of Somalia varies between desert and semi-humid as influenced by the north and south Inter-tropical Convergence Zone (ITCZ) with alternate movement of northeast monsoon winds blowing from the Arabian coast, southwest monsoon winds blowing from Africa, and south winds from the Indian Ocean. The country experiences erratic rainfall from the effects of monsoon winds resulting in four seasons characterized by two rainy seasons and two dry seasons as follows: • Gu season (Main rain period) starting from April to June, Xagaa season (cool, windy and dry periods with light showers in the northwest highlands and south coastal areas along the Indian Ocean. Dayr (Short rain seasons) starts from October to December and is mostly the effective season in some parts for production. Jiilaal is the fourth and the driest season characterized with high temperatures.

The mean annual precipitation for the country is about 282 mm with erratic distribution and highly spatial-temporal variability. The recorded average distribution is about 50 mm along the coast of Gulf of Aden, 150 mm in the interior plateau, 200 - 500 mm in the south, and more than 500 mm in the northwest highlands and south-western parts of the country. The high variability of rainfall is characterized by frequent droughts with increasing occurrence from the past know cycles of between 3-4 years to at times after every year in some parts of the country. The average annual temperature is about 28°C in the hinterland, However, this may go as low as 00 C in the mountain areas and as high as 470 C along the coast of the Gulf of Aden.

Somalia has generally well-developed and deeply weathered soil material with exception of the highly degraded and eroded areas within the recent alluvial and sand dune deposits, and in the northern mountain ranges. According to WRB 2006, the most common soil types in the northern regions of Somalia are Vertisols, Leptosols, Gypsisols, Regosols, Calcisols, Fluvisols, Solonchaks, and Cambisols. The coastal plains have majorly Arenosols while Vertisols and Fluvisols most are found within the highlands of northwest regions. Along the riverine areas like Juba River and Shabeelle, the common soils are reddish to dark clays, or fine also soils classified as Vertisols, Luvisols, Nitosols, Cambisols, Calcisols, and Arenosols.

The combination of climatic pattern and soil distribution in Somalia contributes much in supporting the natural vegetation that ranges from Savanna sparse to dense short grass, shrubs, scattered to dense bush with different kinds of woods, and forests. The total land mass is generally about 46-56% of the under permanent pasture with pastoralism being the main land use within this rangeland, smaller proportion of about 13% is suitable for cultivation, and less than 4% being under forest cover (Alim, A.S. 1997; IUCN. 2006). Notably, the patter of vegetation in the country is constantly changing due to the prevailing land use changes and land degradation.



## 1.2 *Economic Importance of Rangelands in Somalia*

The rangelands of Somalia provide many benefits to the communities from the vast natural resources, including the important vegetation that supports the main livelihood options of pastoralism. Livestock keeping is the major livelihood that supports over 95% of the population. A study by IGAD/ICPALD using the production approach showed the contribution of livestock to the Somalia economy is 8.152 billion USD in 2013 of which 93.6% is derived from conventional goods common in agricultural GDP and 6.4% from financial services provided by livestock. The IMF estimates Agriculture GDP contribution to be about 5.7 billion USD where livestock contributed to 2.28 billion USD, equivalent of 40% of Agriculture contribution to GDP. These figures are old and must be higher at the present, sadly, lack of updated data could not give recent contributions. However, it is evident that Somalia has cutting edge advantage from the use of rangeland for livestock production, having only 12% of the land, or 8 million hectares being suitable for cultivation. Notably, unlike in almost every other country in the region, nomadic pastoralists are a few and economically looked as unimportant minority, interestingly, in Somalia they are nearly two-thirds of the population and about two-thirds of the country's exports originate from this sector. These are people who raise livestock for subsistence consumption and trade or social exchange.

The rangeland communities in Somalia solely depend on natural resources for their livelihoods. Sustainable livelihoods for pastoralists under the known climatic uncertainties are challenging. The known climatic variability, coupled with technological constraints, institutional support challenges and financial constraints has left communities devastated. There is need to consider development of viable production system that considers alternatives for livelihood diversification for increased food security at community and household levels. There is great potential for increased productivity of the rangelands, with the much need for reforms in the institutional and technological capacity that limits achievements. The need for responsive policy is needed to support the threatened pastoral livelihoods.

The Rangelands of Somalia has rich diversity of fauna and flora that contributes immensely to various economic activities like industrial products development, manufacturing, and energy development including fuelwood, construction services for infrastructural development among others. Importantly, these rangelands also provide other goods and services like being a source of human and veterinary medicine, provision of industrial dye, resins, gum as well as human dietary food from fruits, tubers, and vegetables.

The rangelands of Somalia also hold significant natural resources such as oil, gas and minerals, sunshine and wind that could be harnessed as renewable energy to improve livelihoods. Other important key rangeland products are animal-based products like (hides, skins, wool and milk among others, that if well harnessed can contribute to wellbeing of communities. Other genetic resources that contribute to development through industrialization, manufacturing and international trade thereby contributing employment in Somalia include Aloe vera, frankincense, myrrh, Gum Arabica, dyes and medicinal herbs, honey and handicrafts from plants all of which have a ready market locally and internationally. Somalia's communities have opportunities that could help them grow and change. These include the much-needed capital of social cohesion,



indigenous technical knowledge about their environment, and customary rules for managing natural resources and resolving conflicts in rangeland management.

Sadly, despite the above numerous opportunities, the rangeland communities of Somalia, just like in the Eastern Africa region, are faced with myriad of challenges such as land degradation, land use changes leading to fragmentation, productive land encroachment by humans and invasive species, over exploitation of resources, over-stocking leading to over-grazing. Additionally, the negative impacts of climate variability characterized by persistent and recurrent droughts and floods, loss of traditional adaptive resource use strategies, limited development initiatives and policy dilemmas have affected sustainable rangelands management.

In conclusion, the rangelands of Somalia are important in ensuring sustainable livelihoods for many decades and their sustainable management and utilization is inevitable. There is thus need for strategy development to ensure communities manage their land for posterity.

### 1.3 *Past Policy Initiatives in Range Management in Somalia*

Over the years, the government of Somalia has experienced great political and socio-economic changes that have greatly impacted on natural resource utilization and rangeland management. There have been considerable changes in land use and resource exploitation patterns; coupled by the changes in governance regimes. The country has also not been spared by the continuous changes that have seen an increase in population, increasing urbanization, changes in lifestyles with more integration into formal economic activities, increase in trade from enhanced connectedness with the entire world. The impacts of all this have resulted to intensification in production systems in most areas where population growth has forced some communities to shift to agriculture with increasing intensification from government and partners support, increased sedentarization from the past pastoralism, a consequence of urbanization, increase in land clearance for building, fuel wood and other economic uses has also happened in the recent. Somalia has had five major historical periods that has had impacts on natural resource management and utilization. The period of Pre-colonial before 1887 where the Somali Society had a very efficient and effective rangeland management system based on the traditional Xeer that allowed collective management of the rangeland resources (CRD Somalia, 2005). The Xeer laws consisted of community agreements following the ancestral kinship and their interaction with other community and neighbors. The rules were clearly defined and guided the exploitation of pastures, grazing fields, forests and water resources. They always gave every member of the clans the right to access rangeland resources within their territory as defined by the clan. The governing rules were made by community and respected elders know as (Odayo), were the one overseeing the implementation of community agreements including sharing of resources and conflicts resolution. During this period, every member of the clan had rights to anything created by him/her and inheritance was also allowed according to the regular Islamic Shari'a rules of inheritance. During the same period, in highland areas where farming could be done, some communities had enclosures (fenced) for cropping. There were modalities for sharing the farm benefits based on community agreements and engagements. In urban areas, land was allocated to families by elders and was privately owned. Similarly, other areas like where gum and resins are produced, ownership of trees was based on clans and privately owned to that lineage.



The second is the Colonial Period (1887-1960) where changes to have land ownership shift from communal to private with drive towards land registration with title deeds issuance and land taxation introduced in urban areas. The same period had also more land shifting from pastoralism to agro-pastoralism with demarcation of grazing and arable land areas, even though without the good will and wishes of the pastoralists. During this period also, there was introduction of other land management systems like Grazing reserves for increased forage availability during the dry season (Jilaal). There was also restriction of pasture trade. The period also tried to have controlled grazing but wasn't successful (Samatar, 1989). The period had also some form of water development for livestock and domestic through underground water tanks (Berkerds). The period had also support to farmers with extension and farmer learning demonstration plots to new farmers. Notably also, some form of conservation measures for forest and natural vegetation was promoted.

The period of Civilian Government Rule between 1960-1969 had the introduction of new land rights that saw citizen's allowed to live and farm anywhere irrespective of clan and origin. However, the periods also allowed traditional free grazing in the rangelands and the colonial land rights were maintained. Importantly also, the governance promoted commercial livestock production where grazing reserves were used as holding grounds for export animals. The period also fostered privatization of rangelands that saw more public and private water sources, boreholes and Berkerds established. This period characterized an increase in animal production and export that enhanced rangeland degradation.

The Revolutionary Period of 1969 - 1990 saw the embracement of scientific socialism that was introduced in the 70s that brought in new land tenure law which declared all land belonged to the state and management and administration was the role of the government. This situation effectively nationalized the communal rangelands, agricultural schemes and other properties. The period also saw the nullification of the customary treaties between pastoralists over rangeland management (Bradbury, 1996).

The same period also saw the laws supporting Agricultural cooperative development and much funds were directed to agriculture. The government of the period attempted to increase livestock productivity through enhancement of support services like planned grazing, water points development, veterinary support services and livestock marketing service. These were incredible efforts geared to supporting pastoral livelihoods. There were also laws in support to conservation of rangelands including forests and other critical grazing areas with focus on community participation.

The period after the Collapse of Somali Central Government Period in 1991 saw most efforts reversed with regards to sustainable natural resource management. The effects of the collapse of the Somali central government in 1991 led to the breakdown of most institutions that were playing major roles in managing the rangelands, including the social structures and there was a surge of inappropriate range use. The period led to most positive impact of interventions by previous regimes to be reversed.





Notably, in recent years, many initiatives have been taken by the Federal Government and state governments together with international development agencies to reverse the negative trends in range condition. From the historical review above, it is clear that different regimes tried various systems of land use planning and had unique rules and regulations concerning the use of land resources. Each regime scored its own success and failures in this respect. Present land use planners can learn from these experiences and build on traditional land use management practices, as well as on successful modern interventions and programmes. Though there are policy efforts to address rangeland and pastoral production systems in Somalia, there are no specific strategies anchored on these policies. This has hampered effective policy implementation and affected their sustainable exploitation and management.

## 1.4 Methodological Approach in Strategy Development

A holistic approach was employed in developing the rangeland strategy. Participatory techniques were used to gather qualitative data. Specifically, these methods included: literature review, consultative meetings, and key informant interviews (KII) and stakeholder dialogues among other tools. A Steering Committee from the Ministry of Livestock, Forest and Range led by Dr. Hashi Osman, the Director of Forestry and Range, coordinated and supported the consultation process and information gathering from all the key stakeholders. The data collected was contextualized in the following steps to come up with a sustainable rangeland strategy for Somalia:

- **Situational Analysis:** This focused on the progress made relating to natural resources in the country, review of various policies, strategies and documents relating to rangeland management, natural resource management, challenges experienced and likely to be experienced, and lessons learnt from past efforts, programmes in resource management to inform the formulation of the strategic focus, strategic objectives, specific strategies/activities and the indicators for the strategy. Within the situation analysis, all the key stakeholders from line ministries, development partners, and key respondents from major programmes addressing resource management and governance in the country were reached out. The access to literature data and information on livelihoods, challenges and situation of rangeland resource base across Somalia supported situation analysis with respect to community resilience and livelihoods. This heavily supported the framing of focal and thematic areas that will support the development of the RMSS.
- **Analysis of operating environment:** This was critical in predicting the success or failure of strategies proposed in the strategy. This looked at the operating environment based on the analytical frameworks: the assessment of Strengths, Weaknesses, opportunities and Threats (SWOT) and the Political, Economic, Social, Technological, Environment and Legal aspects of rangeland use and management was done to know what should be changed or improved in the management of natural resources. The analysis looked at the rights and duties of the Federal government, regional governments as delegated to the country within the decentralized process. The development of the RMSS adapted to the local political context as entrenched into the governance processes.
- **Policy and regulatory frameworks Analysis:** The analysis of the present regional and country policy frameworks was done to understand the organization and governance as well as the implementation of the rangeland management at present.



- **Stakeholder analysis:** The development of the RMSS was carried out with a clear road map of the major actors in natural resources management. Stakeholder analysis was an important consideration, with their roles, strengths and weaknesses in Rangeland management. The roles and linkages of all stakeholders were identified including their decision-making powers and responsibilities. This supported the process of activities identification and implementation including action plans development with focal lead organizations/institutions.
- **Risk Analysis:** When dealing with resource management and governance, there are many risks associated with the processes. For effective management of the strategy, there was need to identify all the risks likely to affect the implementation of strategy as well as mitigation measures. This was clearly identified during the consultative processes, including documented risks and how they were addressed from past activities in Somalia. The analysis looked at past programmes challenges and lessons learned regarding resource management processes.



## CHAPTER TWO: SITUATION ANALYSIS

### 2.1 Overview

The rangelands of Somalia cover over 95% of land mass that is purely used by pastoralist as the main livelihood option. Livestock keeping is an activity that contributes more to foreign exchange earnings for the country from livestock products and live animals. However, the pastoral production system is highly disadvantaged by the climatic change and variability that has seen an increasing frequency of droughts and flood episodes. This has seriously disrupted the pastoral way of life that heavily depends on land resources, mainly vegetation and water. The frequent droughts has seen increasingly many households becoming destitute after losing their main livelihood options, this trends has been on the rise with increasing need for humanitarian support in the country.

The pastoral communities in Somalia have strong attachment to their environment and over the years they have used traditional laws and bylaws as well as community agreements to govern resource access, use and management. These institutions were very efficient in the old days before the impacts of climate change hit the landscape, which saw the increase in cyclic droughts that have exhausted water and grazing resources, with far much impact on biodiversity loss of important vegetation plants that was useful to the animals.

There has also been increasing population over the years, which has contributed to pressure on the already diminished feed resources, and thus increasing pressure on land resource, with most cases resulting to land degradation from unsustainable utilization of resources. The increasing population has also led to increase in urbanization, and a shift of land uses, with many former grazing areas becoming settlement zones, thus a loss of productive fields. Also, with the increase in population, there has been an increase in shift from pastoralism to other livelihood options as way of survival, this has seen a surge in farming, trade, charcoal production, mining, etc., with some having negative impacts on the environment, like deforestation for charcoal or fuel wood.

The many years of political instability has also seen the country struggle to put sustainable measures for rangeland management, with many areas having insecurity that has resulted to increasing influx of refugee camps. Within the areas where refugees settle, it brings in more challenges of land management, with accelerated land degradation from pressure on land resources from the high population settled in one area. Refugee settlement increases need for energy sources, hence increase in deforestation for charcoal, and fuel wood, also coupled with lack of incomes that intensifies the resources base exploitation.

There is need to support sustainable rangeland management in Somalia, with much efforts to reverse rangeland degradation, increase feed availability, support water shelters and water sources as well as reserve grazing areas which are the key pillars of the region's livelihoods. Rangeland management helps management of land resources. It is a complex practice that considers dynamic and temporal factors, with consideration of the social and political organizations. To understand the complex interactions within such coupled social-ecological systems, we need to account for various climatic, anthropogenic, and socio-economic factors.



Understanding rangeland management requires the integration of larger structural factors and local practices that developed in their respective context.

The rangelands of Somalia have diverse natural resources that need to be well managed and utilized for the benefits of the communities and the economy of the country. The limiting factor is having a clear plan and strategy on management and utilization as well as a mechanism for investment into the sustainable management interventions. This can be achieved with the development of an elaborate range resource management strategy that can be seen to implementation phase and lessons learnt used for improvement. Below are challenges to rangeland productivity that need to be considered in the development of a responsive rangeland management strategy as identified by diverse stakeholders in Somalia.

## 2.2 Challenges to Rangelands productivity in Somalia

Challenges facing sustainable management and development of the rangelands include:

- i. Rangelands degradation:** Rangelands degradation in Somalia has been rampant from the increasing human and livestock population that has seen overgrazing, deforestation and unsustainable farming practices affecting rangeland productivity. This has resulted to loss of pastoralism from diminishing grazing lands which is a major threat to livelihoods of pastoralists.
- ii. Reducing feed availability for livestock:** The increasing frequency of droughts has seen a decline in feed resources, with increasing seasonality of feed resources for pastoral communities. There is lack of strategic feed reserves for the communities from dry seasons and thus increasing loss of animals from starvation.
- iii. Fluctuating availability of water for livestock and domestic use:** The increasing drought frequency has greatly impacted on water shades as well as water availability in streams, water reservoirs and this has greatly impacted on livelihoods. The livestock has been affected by lack of water during dry seasons which is more critical for their survival to provide goods and services to communities.
- iv. Inadequate extension service in livestock husbandry:** The vastness of the Somali rangelands coupled with the existing political instability has limited the provision of livestock husbandry extension services, including production practices, animal health, and breeding support. This has limited the pastoral communities' access to technologies and inputs that increase productivity.
- v. Increasing land use changes in Rangelands:** The grazing rangelands have seen an increase of encroachment by crop farming that has seen an increase in opening up of the fragile rangeland ecosystems. Most of the farming done has seen opening upland cover, increase soil erosion and also farmers experiencing crop failures leading to unviable production practices.
- vi. Unplanned settlements in grazing lands:** Population growth and political instability have led to the expansion of settlements on formerly grazing fields and the proliferation of refugee camps in other regions. A region's high population has put pressure on land resources and produced land degradation as a result of excessive resource exploitation.
- vii. Low response to disasters in rangelands:** The country faces many challenges from droughts, floods and locusts infestation. These disasters need coordinated efforts that lacks in the country from political instability as well as lack of financial and technical support in most



cases. The resulting impacts is increasing suffering of communities from food insecurity loss of livelihoods by the communities

- viii. Weak policies and legal regulatory framework:** The management of rangelands of Somalia has been heavily relying on traditional institutional arrangements and community structures for many years. This worked very well in the past but presently, there is increasing breakdown due to political instability and lack of good will by divergent views from the political class that has seen applicability threatened. The implementation has been a challenge, amidst the lack of strong governance that can formalize most of the needed legal frameworks for sustainable rangeland management. Lack of legal and regulatory framework has constrained productivity, trade and effective competition within the rangelands. Most cases this weakness has resulted in over-exploitation of resource leading to environment degradation.
- ix. Lack of reliable markets and marketing support for rangeland products:** The rangelands have diverse products ranging from animal and its products, gum and resins, plant resources, minerals and dryland farm produce. However, the domestic market is small and fragmented and lacks effective marketing information system and infrastructure, characterized by poor road networks. The dependence on few external market outlets has also denied pastoralists full benefits from livestock and crop production.
- x. Inadequate research on technologies in rangeland resources:** Research is important for enhancing increased productivity and competitiveness in rangelands, including research in livestock resources and other important economic activities like apiculture, plant products, and medicinal products among others. Rangeland resource industry in Somalia is growing at a slower pace despite the huge potential. There is need to have a focus and support rangelands research needs to spearhead development of appropriate technologies suited to the Rangeland areas.
- xi. Political instability and Insecurity:** Somalia has faced political instability for many decades that has seen the rise of insecurity in many parts from the advantage taken by militia groups. This has greatly limited management and utilization of grazing lands as well as resource exploitation in the country. The impacts have been increasing displacement of people thus contributing to non-sustainable resource utilization and development. Many areas have been left unutilized due to frequent insecurity threats, hence a loss to inhabitant communities who end up in camps and thus affecting their livelihoods.
- xii. Loss of important biodiversity and invasion:** The rangelands of Somalia have been experiencing loss of important plant biodiversity, especially of important trees and grass species that has been supporting livestock production activities. Poor land management coupled with increasing frequency of droughts and flood episodes has accelerated loss of plant species, with increasing decline in soil gene banks. This has threatened rangeland management that has been of great value to communities. Poor management of land from the aforementioned challenges has also led to land degradation, unsustainable harvesting of resources and climate change as the most responsible for biodiversity loss.
- xiii. Environmental Pollution:** The increasing population that has resulted to urbanization and settlements has increased the levels of pollution in Somalia. There has been an increase in polythene and plastic pollution from improper disposal plan; this has greatly affected animal health. There is also an increase in water pollution from poor drainage and sanitation that has seen contamination of water sources especially from urban effluents within settlements and urban centers and towns. The earth roads within the rangelands has also contributed to



pollution from transport sector, most often initiating erosion hotspots leading to gullies and siltation of water bodies.

## 2.3 *Policy, legal and Institutional Framework*

At the continental level, few legal frameworks directly address issues related to rangeland management that include the African Union (AU) Policy Framework of 2010 which largely focuses on pastoralism critical issues such as inclusion of pastoralists in the process of policy and legislative reforms, freedom of mobility and acknowledgment of the importance of indigenous institutions to land management. In addition, the AU approved and adopted the Land Policy Framework in 2009 primarily to strengthen land rights enhance productivity and secure livelihoods. The framework and guidelines on land policy in Africa highlights the challenges and threats to rangelands arising from degradation and general marginalization as well as agricultural expansion.

There are several regional strategies particularly at the IGAD region. This include the IGAD Environment and Natural Resources Strategy of 2007 which aim at improving the framework for environmental and natural resources governance in the IGAD region; and developing information required for sound environmental and natural resources management and make it readily available. In addition to enhancing capacity of member states for improved environmental and natural resources management and; enhancing the capability for environmental and natural resources research and development in the region. Furthermore, the Regional Rangeland Management Strategic Framework (RRMSF) for Arid and Semi-Arid Lands in the IGAD Region, which directly address the issues related to rangeland management. The RRMSF aim at achieving sustainable rangeland management in IGAD region by addressing challenges facing rangelands through harmonization of policies and practices among the member states, as a way of complementing the efforts of the IGAD member states in sustainable rangeland management

The Republic of Somalia's political and legal framework can be separated into two parts. The initial phase runs from independence in 1960 until 1991. The second period spans from 1991 until the present day. It is essential to remember that a functional government was constituted only after the 2012 constitution.

### 2.3.1 *Policy, legal and institutional framework between 1960 – 1991*

Between the period of 1960 – 1991, the government had in place a functional policy and legal framework for Rangeland Management that headed by the National Range Agency which is a semi-autonomous government parastatal established in 1976. During the 1960's and there were planned national activities, projects and programmes for all areas that under the jurisdiction of the National Range Agency that include subsector of Rangeland, Forests, Wildlife, soil and water conservation among other focus areas.

Prior to 1991, the Rangeland Management and Environmental Sectors were in general guided by two main laws:

1. The Fauna Conservation Ordinances - No. 18 of 1955. Government Notices issued under this Ordinance dealt with appointment of Conservation Officers and Game Rangers Close seasons, Controlled Area Permits and general rangeland management issues.



2. The Forests Ordinance – No. 7 of 1944. As amended by Ordinance No. 7 of 1956. A number of Rules and Orders made under this Ordinance were still current after independence in June 1960 and related to the Forest and general Rangeland Areas of Hargeisa, Burao, Dalo, Gan Libah, Wagger, Al Medu and Holholka.

The main Law was the Law on Fauna (Hunting) and Forest Conservation (Law No. 15 of 25/1/1969). The 76 articles and 2 schedules dealt comprehensively with all issues of rangeland management, forest among other related sectors such as water and wildlife. This law was amended several times between 1960 and 1980. These include:

- i. Trophies Decree No. 30 December 1969 (titled Protection of Wild Games) – ordering the surrender of trophies meant for export and ordering any dealers to abide by the provisions of the 1969 Law.
- ii. Fauna (Hunting) and Forest Conservation (Amendment) Law – No. 68 of 31 August 1970.
- iii. Fauna (Hunting) and Forest Conservation (Amendment) Law – No. 65 of 13 October 1971 – suspending Article 16 of the 1969 Law only.
- iv. Establishment of National Park Agency – Law No 34 of 1 March 1971– Agency for national parks and reserved areas.
- v. Fauna (Hunting) and Forest Conservation (Amendment) Law and of the 1971 (Law No. 34 of 1 March 1971) Law: Law No. 79 of 12 April 1975 – Change of title of Park Agency to “Wildlife and Game Reserves and Protection Agency” and changes to its functions & structure.
- vi. Fauna (Hunting) and Forest Conservation (Amendment) Law – No. 43 of 1 November 1978 – increases the offences and levels of fines in respect of the killing of a number of listed wild animals listed in Articles 2 and 3 of this Law, or possession of their ivory, horns, hides etc.
- vii. Fauna (Hunting) and Forest Conservation (Amendment) Law – No. 32 of 1 August 1979 – Adds one article (numbered 3 to the 1978 amendment law) that makes aiding or covering up offences or purchasing illegally wild Fauna hides, horns etc.
- viii. Range Development & Management law – Law No 3 of 4 February 1979 – deals mainly with rangeland reserves but it also covers “absolute reserves” set aside for wildlife.
- ix. The other law of historical significance only is the Assimilation of the Wildlife Protection Corps (Game Rangers) into the Police Law (Law No. 4 of 10 January 1980).

### **2.3.2 Policy, legal and institutional framework post 1991**

Between the period of 1991 to 2012 a mixed system operates including the Somali Customary Laws as well as the already established law before 1991 and the Islamic/Sharia Laws. During this period, legal and institutional responsibilities are unclear. This has led to the fact that the capacities to deal with Rangeland Management and enforcing regulation and standards were non-existence. This had resulted into a significant gap in policy, legal and institutional arrangement and responsibilities. Below is the discussion on the same after the 2012 constitution.

#### **2.3.2.1 The Constitution of the Federal Republic of Somalia (2012)**

Chapter 2, Article 25 on the Environment stated:

1. Every person has the right to an environment that is not harmful to their health and well-being, and to be protected from pollution and harmful materials.
2. Every person has the right to have a share of the natural resources of the country, whilst being protected from excessive and damaging exploitation of these natural resources.



Chapter 3 Article 45 stated:

1. The Federal Government shall give priority to the protection, conservation, and preservation of the environment against anything that may cause harm to natural biodiversity and the ecosystem.
2. All people in the Federal Republic of Somalia have a duty to safeguard and enhance the environment and participate in the development, execution, management, conservation and protection of the natural resources and environment.
3. The Federal Government and the governments of the Federal Member States affected by environmental damage shall:
  - a. Take urgent measures to clean up hazardous waste dumped on the land or in the waters of the Federal Republic of Somalia;
  - b. Enact legislation and adopt urgent necessary measures to prevent the future dumping of waste in breach of international law and the sovereignty of the Federal Republic of Somalia;
  - c. Take necessary measures to obtain compensation from those responsible for any dumping of waste, whether they are in the Federal Republic of Somalia or elsewhere;
  - d. Take necessary measures to reverse desertification, deforestation and environmental degradation, and to conserve the environment and prevent activities that damage the natural resources and the environment of the nation.
4. In consultation with the Federal Member States, the Federal Government shall adopt general environmental policies for the Federal Republic of Somalia.

**Chapter 5 Article 52 on:**

Cooperative Relationships between the Various Federal Member State Governments, listed issues related to Rangeland Management such as water resources, animal husbandry, pasture and forestry, The prevention of erosion and the protection of the environment; and Protection of environment.

*2.3.2.2 Somalia Livestock Sector Development Strategy 2019*

The Somalia livestock sector development strategy that was adopted in 2019 highlighted the need to improving the natural rangelands resource base, as it is critical to sustaining the production and productivity of livestock, in parallel with improving livestock productivity and value addition. Furthermore, efforts to improve land tenure management are also required to deal with grazing rights, the fast-expanding private enclosures on previously communal rangelands, and commercial crop and grasses-producing areas. In addition, there is need to ensure secure migration routes to maintain mobility of livestock both within the country and cross-border.

The strategy also indicated that the current large livestock population compared to historical pre-war levels has been putting a major strain on increasingly limited natural resources such as rangeland and water, particularly in the northern, central and southern rangelands. Its impact also needs to be assessed in light of competing resource uses, for example, agriculture production and water for human consumption and other sources of degradation such as charcoal production, wood collection and increasing frequency and severity of droughts.





### 2.3.2.3 UN Security Council Resolution 2036 (2012) 22 February 2012

Clause 22 of the Security Council, regulation clearly compiled the Somali authorities to deal with the illegal export of charcoal. Despite the fact that this was driven by national security concerns, if enforced this will significantly improve the environment and therefore better management for Rangeland Resources.

The resolution stated that “Decides that Somali authorities shall take the necessary measures to prevent the export of charcoal from Somalia and that all Member States shall take the necessary measures to prevent the direct or indirect import of charcoal from Somalia, whether or not such charcoal originated in Somalia”;. The resolution is in the process of implementation by the Federal Government of Somalia.

### 2.3.2.4 National Biodiversity Strategy and Action Plan (NBSAP) December 2015

The strategy and Action Plans clearly outlined the significant importance of livestock production the Rangeland as a support system. This is clear as the same indicated that Pastoralism accounts for over 50% of the population, 40% of GDP, 65% of export earnings. As this is based on wet and dry season grazing/browsing of natural resources (grasses, herbs, browse, trees and shrubs). In addition, the strategy stated that there is evidence of rangeland degradation as a result of strife and insecurity, but the scale and extent is difficult to validate. Therefore, this requires a holistic approach to deal with magnitude of this problem.

### 2.3.2.5 National Development Plan 2017 – 2019

The NDP 9 has clearly outlined plan for development, approval of policies and strategies of key sectors including Rangeland Management. The Development Plan further stated that the government would commission baseline assessments to identify the status of the range, forest and wildlife. The sector will also develop drought and natural disaster management policy. The plan in addition to policy and legislative focus will also strengthen the awareness of the pastoral people on natural disaster management and raise the awareness with men and women on alternative sources of energy to replace the charcoal and fuel-efficient stoves, as well as on restoration of forests. Furthermore, the plan suggested providing technical support to community led regeneration of degraded rangelands and forests as well as identify and construct water harvesting and catchment points for the animals

### 2.3.2.6 Nationally Determined Contribution 2015

The Nationally Determined Contribution (NDC) 2015 proposed to implement an integrated land use management where all-natural system are managed collectively there are rangeland, forests and watershed. This is planned across districts and will involve all stakeholders. Furthermore, the government proposed physical Investment and Demonstration (Rehabilitation and reinstatement of degraded ecosystems, in particular rangeland areas, forests and areas with a high potential for cultivation, to provide sustainable grazing, forestry products, and agriculturally productive zones). The document additionally highlighted particular remedial action to overcome the deforestation and rangeland degradation, this includes:

1. Sustainable land management and food security through enhanced productivity.
2. Integrated water management.
3. Reducing risk among vulnerable populations from natural disasters;



4. The utilization of renewable energy resources such as solar, hydroelectric and wind.
5. The implementation of the UN Security Council Resolution 2036 (2012) that calls for international cooperation to ban illegal export of charcoal from Somalia and the various laws passed by the Somalia's authorities both federal and some states.
6. The introduction and advocating the use of more efficient kilns for charcoal making and efficient stoves for local use, in order to reduce trees felling for local use.
7. Reforestation using regional nurseries and forest plantation using indigenous and introduced suitable tree species. Such initiatives could reverse the deforestation and land degradation.

#### 2.3.2.7 Ministry of Agriculture Strategic Plan 2016-2020

The latest Agricultural strategy emphasized the need to improve and develop institutional capacity, good governance, formulation and implementation and review of systems, policies and procedures and rebuilt range management. The same was also accentuated in Strategic Objective SO3-2 along with other critical areas such as land and water use, phytosanitary laws, agricultural credit law and research.

## 2.4 Institutional Framework

The Federal Ministry of Livestock, Forestry, and Range (MoLFR) manages the Rangeland Management directly, with the collaboration of federal member state-level rangeland management related ministries and institutions. This is further cascaded to the district levels across Federal States. The government institutions will work with a wide range of stakeholders across including non-state actors, development partners, regional and international entities to deliver on their mandate. Furthermore, there are linkages to various public and private research, training, monitoring and implementation bodies, professional associations, and civil society organizations that provide key services, such as education, training, monitoring of weather, water, soil, animal population, production and trade, animal health services, technical advice, and project implementation. The federal government supports overall rangeland management with a focus to having sustainable ecosystems. It offer overall coordination mechanism and supervision of federal states in their implementation of rangeland management activities, including partner's coordination and approval of range activities implementations. The federal states are responsible for development support to rangeland management, provide support to any partners in collaborations with line ministries.

## 2.5 SWOT Analysis for Rangeland Management Strategy in Somalia

This section provides a synthesis of Strengths, Weaknesses, Opportunities and Threats to sustainable rangeland management in Somalia. The information presented resulted from a participatory process and detailed synthesis of literature and information from stakeholders. The SWOT analysis follows key strategic issues identified through the participatory process and from the situation analysis done.

**Table 1: STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) ANALYSIS**

STRENGTH	ISSUE TO ADDRESS	WHAT TO DO WITH STRENGTH	THREATS/ LIMITATIONS
<b><i>I. Rangeland degradation that has reduced productivity of vegetation and livestock</i></b>			
Communities have knowledge on rangeland management with traditional resource management structures	<ul style="list-style-type: none"> <li>Breaking up of traditions management knowledge and structures</li> </ul>	<ul style="list-style-type: none"> <li>Need to strengthen and reconsider traditional knowledge and structures that support sustainable rangeland management</li> <li>Need to document the working community resource management structures</li> <li>Need to support and promote the working community structures in rangeland management</li> </ul>	<ul style="list-style-type: none"> <li>Lack of proper documentation and dissemination of working community knowledge</li> <li>Low adapting of community knowledge to local situations/ low adaptation</li> <li>Political instability poses challenges to the application of community structures.</li> </ul>
Availability of line ministries, higher learning institutions, departments and research institutions that can support Sustainable rangeland management	<ul style="list-style-type: none"> <li>Inadequate research and dissemination by local institutions</li> <li>The ministries and departments have low funding and staff capacity shortages to carry research and dissemination</li> </ul>	<ul style="list-style-type: none"> <li>Develop and disseminate knowledge on sustainable rangeland management interventions/ technologies</li> <li>Support research on sustainable rangeland resource management</li> <li>Support local staff capacity in rangeland management</li> </ul>	<ul style="list-style-type: none"> <li>Unpredictable and low funding sources</li> </ul>
Presence of adapted livestock species and range plants to the rangelands	<ul style="list-style-type: none"> <li>Declining populations of indigenous adapted livestock species</li> <li>Low Conservation and protection of the existing livestock and plant biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Promote conservation measures on existing plant and animal biodiversity</li> <li>Support animal breeding for local adapted species</li> </ul>	<ul style="list-style-type: none"> <li>Unpredictable climate change and variability</li> <li>Existing Un-sustainable livelihoods leading to over exploitations of plants</li> <li>Unpredictable and low funding sources</li> </ul>



<p>The country has vast productive rangelands</p>	<ul style="list-style-type: none"> <li>• Rangeland degradation for erosion, deforestation and invasion of <i>Prosopis Juliflora</i></li> <li>• Loss of biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Institute measures to reduce land degradation, control invasive species and protect biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Unpredictable climate change and variability</li> <li>• Existing Unsustainable livelihoods leading to over exploitations of plants</li> <li>• Unpredictable and low funding sources</li> </ul>
<p>Availability of proven adapted technologies for rangeland management</p>	<ul style="list-style-type: none"> <li>• Low adoption of the available suitable technologies in rangeland management</li> </ul>	<ul style="list-style-type: none"> <li>• Promote the adoption of the existing technologies by the rangeland inhabitants</li> </ul>	<ul style="list-style-type: none"> <li>• Socio-cultural systems</li> <li>• Heterogeneous rangeland types</li> <li>• Unpredictable and low funding sources for technology acquisition and development</li> </ul>
<p>Potential for multiple uses of the rangelands</p>	<ul style="list-style-type: none"> <li>• Underutilization of the diverse natural resources</li> <li>• Unsustainable exploitation of the resources</li> </ul>	<ul style="list-style-type: none"> <li>• Promote sustainable multiple uses for the rangeland</li> <li>• Protect diverse resources from overexploitation</li> </ul>	<ul style="list-style-type: none"> <li>• Diminishing access to the resources</li> <li>• Over exploitation due to population increase and climate/ political conflicts instigated refugees</li> <li>• Increasing demand of some non-renewable resources</li> </ul>



WEAKNESSES	ISSUE TO ADDRESS	WHAT TO DO WITH WEAKNESS	THREATS/ LIMITATIONS
Vast rangelands that are fragile ecosystems	<ul style="list-style-type: none"> <li>The rangelands are diverse and need site specific interventions</li> </ul>	<ul style="list-style-type: none"> <li>Develop range use and management plans that are cognizant with heterogeneity and diverse ecosystems</li> <li>Develop range monitoring plans for interventions to reduce fragility from impacts</li> </ul>	<ul style="list-style-type: none"> <li>High variability of ecosystem drivers</li> <li>External range condition drivers</li> <li>Unplanned resource exploitation and development</li> </ul>
High spatial-temporal variability of rainfall	<ul style="list-style-type: none"> <li>High chances of moisture deficits</li> </ul>	<ul style="list-style-type: none"> <li>Plan for the variability of rainfall with water conservation plans and structures promotes</li> <li>Sustainable land management approaches to conserve available water</li> </ul>	<ul style="list-style-type: none"> <li>Unpredictable climate change impacts</li> </ul>
Unavailability of rangeland management technologies to local communities	<ul style="list-style-type: none"> <li>Use of poor technologies by communities that affect land and water</li> </ul>	<ul style="list-style-type: none"> <li>Promote access and uptake of appropriate rangeland management technologies</li> </ul>	<ul style="list-style-type: none"> <li>Lack of predictable finances</li> <li>Low literacy levels</li> <li>Cultural mindset that limit adoption</li> </ul>
Increasing degradation of vast rangelands	<ul style="list-style-type: none"> <li>Poor rangeland productivity and loss of ecosystem services</li> </ul>	<ul style="list-style-type: none"> <li>Put in place measures to reduce land degradation</li> <li>Rehabilitate degraded landscapes</li> </ul>	<ul style="list-style-type: none"> <li>Limited financial resources</li> <li>Unpredictable climate change impacts</li> </ul>
Increasing Settlements in the Rangelands	<ul style="list-style-type: none"> <li>Reduction of grazing lands from land use changes</li> <li>Increasing over exploitation of resources</li> <li>Loss of land productivity</li> </ul>	<ul style="list-style-type: none"> <li>Develop policies and guidelines on settlement</li> <li>Develop sustainable land use plans</li> <li>Protect rangeland from unsustainable land use options</li> <li>Enhanced sustainable rangeland management technologies</li> </ul>	<ul style="list-style-type: none"> <li>Limited financial resources</li> <li>Political instability</li> <li>Lack of Land tenure policies</li> <li>Increasing human population</li> <li>Lack of land use plans</li> </ul>



Frequent Community Conflicts over rangeland resource	<ul style="list-style-type: none"> <li>Increasing displacement of communities</li> <li>Increasing land resource exploitation leading to degradation</li> </ul>	<ul style="list-style-type: none"> <li>Promote dialogue for stability in the country</li> <li>Support conflict resolution initiatives</li> <li>Put in place appropriate resource sharing and use strategies by communities</li> </ul>	<ul style="list-style-type: none"> <li>Political instability and interference</li> <li>Clannism challenges</li> </ul>
Increasing invasion by plant species	<ul style="list-style-type: none"> <li>Loss of rangeland productivity</li> <li>Loss of plant and animal biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Develop strategies to deal with invasive species</li> <li>Promote and adopt technologies to control invasive species</li> <li>Undertake research on invasive</li> </ul>	<ul style="list-style-type: none"> <li>Limited financial resources</li> <li>Unpredictable climate change impacts</li> <li>Inadequate research support</li> </ul>
Livestock feed deficits and lack of sustainable feed reserves	<ul style="list-style-type: none"> <li>Lack of strategic feed use plans and livestock feed reserves</li> </ul>	<ul style="list-style-type: none"> <li>Put in place livestock feed reserves</li> <li>Promote livestock feed conservation structures and storage facilities</li> </ul>	<ul style="list-style-type: none"> <li>Frequent droughts and Climate variability</li> <li>Lack of structured pasture seeds value chains for pasture production</li> </ul>
Breakdown of traditional structures of resource use and governance	<ul style="list-style-type: none"> <li>Unsustainable utilization of rangeland resources</li> <li>Increasing conflicts over resource use, access and management</li> </ul>	<ul style="list-style-type: none"> <li>Promote and support traditional community resource management and governance consistent with sustainable utilization of resources</li> </ul>	<ul style="list-style-type: none"> <li>Resource based conflicts</li> <li>Political interference</li> </ul>
<b>OPPORTUNITIES</b>	<b>ISSUE TO ADDRESS</b>	<b>WHAT TO DO WITH THE OPPORTUNITY</b>	<b>THREATS/ LIMITATIONS</b>
High biodiversity of plants and animal resources in Somalia	<ul style="list-style-type: none"> <li>Unsustainable utilization of existing biodiversity resources</li> </ul>	<ul style="list-style-type: none"> <li>Sustainably manage the existing biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Unpredictable climatic change impacts</li> <li>Land use changes</li> </ul>



Increasing demand for rangeland products	<ul style="list-style-type: none"> <li>-Low and unsustainable resource exploitation</li> <li>-Low marketing of products</li> </ul>	<ul style="list-style-type: none"> <li>--Support efficiency of resource exploitation</li> <li>-Promote marketing and develop marketing structures for the rangeland resources</li> </ul>	<ul style="list-style-type: none"> <li>Unsustainable exploitation of resources from increasing population</li> </ul>
Availability of the vast rangelands with many resources	<ul style="list-style-type: none"> <li>Unsustainable utilization of vast rangeland resources</li> </ul>	<ul style="list-style-type: none"> <li>Measures to support sustainable utilization of the resources in the rangelands including policy and strategic frameworks for various sectors</li> </ul>	<ul style="list-style-type: none"> <li>Lack of strategic policy to support sustainable resource management</li> <li>Land use changes</li> <li>Lack of financial support to support land management</li> </ul>
Presence of Communities elders who have knowledge and skills about managing their resources	<ul style="list-style-type: none"> <li>Increasing loss of traditional skills and knowledge application in natural resource management</li> </ul>	<ul style="list-style-type: none"> <li>Promote and support measures that considered working and sustainable natural resource management by the communities</li> <li>Document working technologies and structures for promotion</li> </ul>	<ul style="list-style-type: none"> <li>Lack of structures to embrace indigenous community structures and skills</li> <li>Financial support to promote communities</li> </ul>
Existence of diverse eco-friendly technologies for exploitation of resources in the region	<ul style="list-style-type: none"> <li>Low adoption of eco-friendly technologies in Somalia</li> </ul>	<ul style="list-style-type: none"> <li>Promote adoption of eco-friendly resource exploitation technologies in Somalia</li> </ul>	<ul style="list-style-type: none"> <li>Cultural considerations</li> <li>Local capacity to adopt technologies though extension</li> <li>Limited financial resources</li> </ul>



Existence of many development partners and agencies supporting rangeland management in Somalia	<ul style="list-style-type: none"> <li>Lack of coordination of efforts by partners and agencies by government of Somalia</li> </ul>	<ul style="list-style-type: none"> <li>Develop a platform to coordinate and support rangeland management initiatives by partners and government</li> </ul>	<ul style="list-style-type: none"> <li>Divergent political views challenges</li> <li>Increasing global conflicts that divert donor effort</li> <li>Emerging pandemics like Covid-19</li> </ul>
<b>II. Reduced Pastoral Production System that has affected community resilience and livelihoods</b>			
<b>STRENGTHS</b>	<b>ISSUE TO ADDRESS</b>	<b>WHAT TO DO WITH STRENGTH</b>	<b>THREATS/ LIMITATIONS</b>
Communities adapted strategies for the exploitation of the vast rangelands	<ul style="list-style-type: none"> <li>Inadequate support for communities adapted strategies for resource exploitation</li> </ul>	<ul style="list-style-type: none"> <li>Support mechanisms that support communities in applying their traditional adapted resource utilization</li> </ul>	<ul style="list-style-type: none"> <li>Cultural considerations</li> <li>Resource use conflicts</li> <li>Breakdown of traditional systems</li> </ul>
Availability of vast land that can support many livelihoods	<ul style="list-style-type: none"> <li>Limited livelihood options at the present</li> </ul>	<ul style="list-style-type: none"> <li>Support the production system to consider alternative livelihoods that are sustainable</li> <li>Strengthen pastoral livelihood option</li> </ul>	<ul style="list-style-type: none"> <li>Land use changes</li> <li>Population increase</li> <li>Financial support</li> </ul>
High Population that is dependent on rangeland resources	<ul style="list-style-type: none"> <li>Few people contributing to sustainable utilization</li> <li>Declining natural resources base</li> </ul>	<ul style="list-style-type: none"> <li>Promote sustainable natural resource management and improve production</li> <li>Sustainably engage the community and the population to manage the natural resources</li> </ul>	<ul style="list-style-type: none"> <li>Climate changes</li> <li>Population increase</li> </ul>
<b>WEAKNESSES</b>	<b>ISSUE TO ADDRESS</b>	<b>WHAT TO DO WITH WEAKNESS</b>	<b>THREATS/ LIMITATIONS</b>
Breakdown of communities traditional natural resource management	<ul style="list-style-type: none"> <li>Increasing breakdown of resource governance structures at community level</li> <li>Increasing unplanned Land use changes e.g. human settlements, crop production,</li> <li>Poor governance of the grazing systems</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the community structures and institutions managing grazing systems</li> <li>Policy on land use</li> </ul>	<ul style="list-style-type: none"> <li>Land fragmentation</li> <li>Land tenure</li> <li>Breakdown of socio-cultural systems</li> <li>Conflicts and insecurity</li> <li>Overgrazing</li> </ul>





The system requires vast and well managed land	<ul style="list-style-type: none"> <li>Increasing land fragmentation and land use changes</li> </ul>	<ul style="list-style-type: none"> <li>Support strategies that address pastoral land use systems with reduced degradation</li> </ul>	<ul style="list-style-type: none"> <li>Land tenure</li> <li>Cultural mindset</li> <li>Land use changes</li> </ul>
Challenges of commercializing the production system	<ul style="list-style-type: none"> <li>The system is still being done as a traditional practice that need to be modernized to promote trade that benefits producers</li> <li>Inadequate market information systems and physical infrastructures</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building for commercialization of the production system in a sustainable manner</li> <li>Strengthening of the existing livestock marketing information system both at local and international level</li> </ul>	<ul style="list-style-type: none"> <li>Financial support</li> <li>Land use changes</li> <li>Resource use conflicts</li> <li>Cultural mindset</li> </ul>
<b>OPPORTUNITIES</b>	<b>ISSUE TO ADDRESS</b>	<b>WHAT TO DO WITH OPPORTUNITIES</b>	<b>THREATS/ LIMITATIONS</b>
Regional good will and Existing Regional Rangeland Management Strategy that support member countries	<ul style="list-style-type: none"> <li>Insufficient support for the regional good will in support to rangeland management</li> <li>Inadequate institutional support or lack of mandated support institution</li> <li>Lack of Somalia strategic framework anchored on the regional strategy</li> </ul>	<ul style="list-style-type: none"> <li>-To ride on the existing regional strategic framework to support rangeland management in Somalia</li> <li>Support transboundary resource management for the region with local interests consideration</li> <li>-Strengthen regional agenda that support pastoralism</li> <li>Recognize and embrace pastoralism as a way of resource exploitation</li> </ul>	<ul style="list-style-type: none"> <li>Politics</li> <li>Weak legislative framework</li> </ul>
High local and international demand for Rangeland products	<ul style="list-style-type: none"> <li>Low productivity from the rangelands</li> </ul>	<ul style="list-style-type: none"> <li>Promote sustainable range resource exploitation to supply the demanded products</li> <li>Invest in technologies and sustainable production systems in the rangelands</li> </ul>	<ul style="list-style-type: none"> <li>Limited access to financial services</li> <li>Un-sustainable exploitation</li> </ul>



<p>Availability of technical experts in rangeland management in the region</p>	<ul style="list-style-type: none"> <li>• -Low engagement of the experts by the government</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance the capacity development in rangeland management and pastoral production system</li> <li>• Increase knowledge sharing and adoption of technologies developed</li> </ul>	<ul style="list-style-type: none"> <li>• Financial resources</li> <li>• Dynamic system</li> <li>• Inadequate synergy among the experts</li> </ul>
<p>Presence of livestock breeds and plant types adapted to the rangeland conditions</p>	<ul style="list-style-type: none"> <li>• Underutilization of the existing biodiversity</li> <li>• Unsustainable exploitation of the biodiversity existing</li> </ul>	<ul style="list-style-type: none"> <li>• Improve, protect and conserve the existing biodiversity</li> <li>• Invest in research and technologies for biodiversity conservation</li> </ul>	<ul style="list-style-type: none"> <li>• Financial constraints</li> <li>• Climate change</li> <li>• Loss of biodiversity</li> </ul>
<p>Existence of communities with Traditional resource management structures and Indigenous knowledge</p>	<ul style="list-style-type: none"> <li>• Lack of support to utilize and promote traditional knowledge by communities for sustainable resource management</li> <li>• Insufficient involvement of traditional institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Support the process of formal recognition of traditional pastoral institutions and structures for utilization and management of their rangelands</li> <li>• Documentation of working management interventions by the community for upscaling</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of documented past pastoral institutions for reference</li> <li>• Modernization threatening traditional resource governance</li> <li>• Political stability challenges and insecurity</li> </ul>



<b>III. Low Climate Change adaptation and mitigation affecting rangeland productivity and sustainability</b>			
<b>STRENGTH</b>	<b>ADDRESS WHAT ISSUE</b>	<b>WHAT TO DO WITH STRENGTH</b>	<b>THREATS/ LIMITATIONS</b>
There is increased international, regional and national awareness	<ul style="list-style-type: none"> <li>• Less action done and No impacts felt to address the challenge</li> </ul>	<ul style="list-style-type: none"> <li>• Support efforts that promote climate change mitigation and adaptation</li> </ul>	<ul style="list-style-type: none"> <li>• Political instability limits the efforts</li> <li>• Lack of local structures within the existing legislations</li> <li>• Lack of proper coordination amongst stakeholders</li> </ul>
Presence of Climate change information, knowledge and lessons on adaptation and mitigation	<ul style="list-style-type: none"> <li>• Poor and slow information sharing</li> <li>• Lack of adequate technical capacity to do extension and technology transfer on climate issues</li> </ul>	<ul style="list-style-type: none"> <li>• Put in place information dissemination strategies</li> <li>• Capacity building for resilience through follow up and enforcement of action plans</li> <li>• Create a repository for climate change and rangeland related issues</li> </ul>	<ul style="list-style-type: none"> <li>• Financial support to the process</li> <li>• Time relevance of documents</li> <li>• Low technical capacity</li> <li>• Poor infrastructure for timely information sharing</li> </ul>
Global availability of funds for investments in climate change adaptations and mitigations	<ul style="list-style-type: none"> <li>• Lack of technical capacity for accessing the funds locally</li> <li>• Inadequate funds and investments</li> </ul>	<ul style="list-style-type: none"> <li>• To build capacity and form networks that will increase access to the global funds</li> <li>• Put in place local measure for self-fund raising activities</li> </ul>	<ul style="list-style-type: none"> <li>• Global Policy changes</li> <li>• Political instability</li> </ul>
Availability of adaptive biodiversity of plant and animals to the rangelands	<ul style="list-style-type: none"> <li>• Identify, promote and protect the desired species with adaptive capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Propagation and promotion of adaptive species to build their resilience</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of finance in support of conservation of biodiversity</li> <li>• Diminishing availability of some genetic species</li> </ul>
Wide array of diverse natural resource base	<ul style="list-style-type: none"> <li>• Unsustainable natural utilization and management</li> </ul>	<ul style="list-style-type: none"> <li>• Support use of technologies for sustainable natural resource management</li> <li>• Build local capacity to sustainably manage available resources</li> </ul>	<ul style="list-style-type: none"> <li>• Political good will and external forces on resource</li> <li>• Lack of finance in support</li> </ul>



WEAKNESSES	ADDRESS WHAT ISSUE	WHAT TO DO WITH WEAKNESS	THREATS/ LIMITATIONS
Lack of full commitment at local, regional and global levels	<ul style="list-style-type: none"> <li>Inappropriate Legislation at local scale</li> </ul>	<ul style="list-style-type: none"> <li>Create legal framework to ensure commitment</li> <li>Establish full secretariat to follow up on commitments and deliver as expected</li> </ul>	<ul style="list-style-type: none"> <li>Conflicting interests</li> <li>Political Instability</li> </ul>
Lack of adequate local capacity to tackle climate change issues	<ul style="list-style-type: none"> <li>Low capacity by staff</li> <li>Limited resources</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building</li> </ul>	<ul style="list-style-type: none"> <li>Rigid mindsets</li> <li>Risk of implementing inappropriate adaptation and mitigation measures</li> </ul>
Climate change and variability impacts limiting land productivity	<ul style="list-style-type: none"> <li>Increasing land degradation</li> <li>Inappropriate land resources exploitation</li> </ul>	<ul style="list-style-type: none"> <li>Support appropriate land use practices</li> <li>Formulate and implement appropriate strategies improve productivity</li> </ul>	
	<ul style="list-style-type: none"> <li>Poor coping mechanisms to drought and flooding</li> </ul>	<ul style="list-style-type: none"> <li>Promote interventions for enhanced resilience and risk mitigation</li> </ul>	<ul style="list-style-type: none"> <li>Limited resources</li> <li>Ineffective technologies</li> </ul>
OPPORTUNITIES	ADDRESS WHAT ISSUE	WHAT TO DO WITH OPPORTUNITY	THREATS/ LIMITATIONS
Existence of Regional Rangeland management strategy and action plan by IGAD	<ul style="list-style-type: none"> <li>Lack of awareness and slow implementation by country</li> </ul>	<ul style="list-style-type: none"> <li>Follow to make local rangeland management strategy and enhance awareness creation and ensure implementation</li> </ul>	<ul style="list-style-type: none"> <li>Political challenges</li> <li>Lack of finances to implement some processes</li> </ul>
Existence of interested stakeholders supporting climate change issues	<ul style="list-style-type: none"> <li>Lack of government involvement in coordination</li> </ul>	<ul style="list-style-type: none"> <li>Promote coordination of diverse activities and efforts by government for sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Conflict of interest</li> <li>Duplication of interventions</li> <li>Lack of supportive policies</li> </ul>
Availability of green energy sources	<ul style="list-style-type: none"> <li>Limited exploitation of green energy</li> </ul>	<ul style="list-style-type: none"> <li>Promote innovations, capacity building, and fund raise for activities to encourage adoption of clean energy</li> </ul>	<ul style="list-style-type: none"> <li>Lack of financial support</li> <li>Insufficient and inefficient technologies</li> <li>Conflict of interest</li> </ul>



Availability of water harvesting technologies to adapt to climate change impacts	<ul style="list-style-type: none"> <li>Lack of adoption of water harvesting technologies in Rangelands during the dry seasons</li> </ul>	<ul style="list-style-type: none"> <li>Invest in water harvesting and utilization technologies</li> </ul>	<ul style="list-style-type: none"> <li>Lack of Political goodwill</li> <li>Resource use conflicts</li> <li>Limited financial resources</li> <li>Limited technical skill</li> </ul>
Opportunities for rangelands to support new livelihood strategies	<ul style="list-style-type: none"> <li>Limited adoption of sustainable alternative livelihoods</li> </ul>	<ul style="list-style-type: none"> <li>Initiate and support sustainable alternative livelihood options and strategies</li> </ul>	<ul style="list-style-type: none"> <li>Resource use conflicts</li> <li>Limited financial resources</li> <li>Limited technical skill</li> <li>Conflict of interests</li> </ul>
Availability of research institutions at local, regional and national levels on rangeland management issues	<ul style="list-style-type: none"> <li>Low research capacity on technologies to address emerging challenges in rangelands</li> </ul>	<ul style="list-style-type: none"> <li>Promote relevant research activities and thematic areas to address sustainable resource utilization</li> </ul>	<ul style="list-style-type: none"> <li>Limited financial resources</li> <li>Conflict of interest</li> <li>Limited technical skills</li> </ul>

**IV. Unsustainable exploitation and inadequate marketing of rangeland resources for improved livelihoods of communities**

STRENGTH	ADDRESS WHAT ISSUE	WHAT TO DO WITH STRENGTH	THREATS/ LIMITATIONS
Availability of wide diversity of rangeland resources	<ul style="list-style-type: none"> <li>Unsustainable exploitation of available diversity of rangeland resources</li> </ul>	<ul style="list-style-type: none"> <li>Promote sustainable exploitation using appropriate technologies and control on uses</li> <li>Develop an inventory of all rangeland resources</li> </ul>	<ul style="list-style-type: none"> <li>Lack of technical capacity</li> <li>Lack of financial resources</li> <li>Rangeland degradation</li> <li>Loss of biodiversity</li> </ul>
High demand for rangeland products both locally and internationally	<ul style="list-style-type: none"> <li>Limited access to markets and thus not meeting demand</li> </ul>	<ul style="list-style-type: none"> <li>Enhance access to the markets</li> <li>Upgrade existing market infrastructure, including roads</li> </ul>	<ul style="list-style-type: none"> <li>Insecurity</li> <li>Limited access to finances</li> </ul>



Existence of regional institutional frameworks that can be cascaded on sustainable resource management	<ul style="list-style-type: none"> <li>• Low support for local institutional frameworks</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen institutional frameworks</li> <li>• Establish quality standards at country level</li> </ul>	<ul style="list-style-type: none"> <li>• Political instability</li> <li>• Limited access to finances</li> <li>• Political dynamism</li> <li>• Market dynamics e.g. demand is external</li> </ul>
<b>WEAKNESS</b>	<b>ADDRESS WHAT ISSUE</b>	<b>WHAT TO DO WITH WEAKNESS</b>	<b>THREATS/ LIMITATIONS</b>
Existence of limited marketing structures, networks and available technology	<ul style="list-style-type: none"> <li>• Inadequate information on markets (prices, volume and products)</li> </ul>	<ul style="list-style-type: none"> <li>• Increase access to market and markets information for rangeland resource products</li> <li>• Promote value addition / diversification</li> <li>• Scale up capacity building on product commercialization and new technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Political instability</li> <li>• Limited access to finances</li> <li>• Political dynamism</li> <li>• Market dynamics e.g. demand is external</li> </ul>
Limited capacity and Knowledge on market dynamics	<ul style="list-style-type: none"> <li>• Inadequate capacity to promote access to markets (information, infrastructure, networks)</li> </ul>	<ul style="list-style-type: none"> <li>• Establish capacity gaps</li> <li>• Provide capacity building</li> <li>• Mapping and networking of range products market players</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate finance</li> <li>• Inadequate training facilities</li> </ul>



<p>Lack of organized markets at local and global access</p>	<ul style="list-style-type: none"> <li>• Inability to Streamline and operationalize the markets</li> <li>• Weak marketing cooperatives for range products to access better markets</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance capacity building and publicize</li> <li>• Strengthen market information systems</li> <li>• Strengthen existing cooperatives</li> <li>• Strengthen market policies and regulations for range products to access markets</li> <li>• Develop product standards</li> <li>• Creation of product marketing structures e.g. Livestock Marketing Board</li> </ul>	<ul style="list-style-type: none"> <li>• Exploitation by middlemen/ cartels</li> <li>• Unfair competition</li> <li>• Inadequate funding</li> </ul>
<p>Lack of standardization for rangeland resource products</p>	<ul style="list-style-type: none"> <li>• Low quality of Rangeland resource products</li> <li>• Limited certification of range products</li> </ul>	<ul style="list-style-type: none"> <li>• Establish standards through quality control</li> <li>• Promote capacity building</li> <li>• Adoption of traceability and identification systems</li> <li>• Certification of range products e.g. range grass seeds</li> <li>• Strengthen phyto-sanitary requirements e.g. disease free zones</li> </ul>	<ul style="list-style-type: none"> <li>• Political dynamism</li> <li>• Compliance with international Standards</li> </ul>
<p>Limited value addition for rangeland products to access better markets</p>	<ul style="list-style-type: none"> <li>• Low returns from rangeland products (due to inadequate value addition)</li> <li>• Minimal exploitation of range products</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building on value chain</li> <li>• Promote technologies along the value chain for value addition</li> <li>• Mapping and economic valuation of rangeland resources</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate finance</li> <li>• Change of technology</li> </ul>



Inadequate market infrastructure including processing, transport and value addition	<ul style="list-style-type: none"> <li>• Low returns on most products like livestock</li> <li>• Minimal exploitation of range products</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building</li> <li>• Enhance adoption of technology e.g. aggregation facilities; product storage facilities</li> <li>• Creation of market linkages</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate finance</li> <li>• Insecurity</li> </ul>
Limited access to credit facilities to support marketing and products development	<ul style="list-style-type: none"> <li>• Limited competitiveness in the market</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building of local traders and communities on market demands</li> <li>• Develop policies and regulatory frameworks to enable access to credit e.g. use of livestock as collateral</li> </ul>	<ul style="list-style-type: none"> <li>• Market dynamics and competitiveness</li> <li>• Lack of enabling platforms</li> </ul>
<b>OPPORTUNITY</b>	<b>ADDRESS WHAT ISSUE</b>	<b>WHAT TO DO WITH OPPORTUNITY</b>	<b>THREATS/ LIMITATIONS</b>
Availability of huge markets globally and at local for quality products	<ul style="list-style-type: none"> <li>• Lack of access to market by producers</li> </ul>	<ul style="list-style-type: none"> <li>• Support producers on quality assurance and market access support</li> </ul>	<ul style="list-style-type: none"> <li>• Limited financial support</li> <li>• Political good will</li> <li>• Global politics</li> </ul>
Open access to information network on the markets	<ul style="list-style-type: none"> <li>• Exploitation in the markets due to lack of information</li> <li>• Inadequate funds at the country level</li> </ul>	<ul style="list-style-type: none"> <li>• Avail information on markets and support producers access better markets</li> <li>• Promote establishment of market facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of institutional platform</li> <li>• Limited funding</li> </ul>





<b>V. Inappropriate exploitation of alternative livelihoods in the rangelands affecting sustainable livelihoods</b>			
<b>STRENGTH</b>	<b>ADDRESS WHAT ISSUE</b>	<b>WHAT TO DO WITH STRENGTH</b>	<b>THREATS/ LIMITATIONS</b>
Availability of many alternative livelihoods options in rangelands	<ul style="list-style-type: none"> <li>Most of the options are unsustainably exploited</li> </ul>	<ul style="list-style-type: none"> <li>Creation of awareness on sustainable alternative options for rangelands</li> <li>Exploitation and utilization of alternative livelihood opportunities using appropriate technologies</li> <li>Building capacity of communities on sustainable livelihoods</li> </ul>	<ul style="list-style-type: none"> <li>Changing climatic conditions</li> <li>Inadequate finances</li> <li>Political dynamism</li> <li>Cultural hindrances/ Misunderstanding/ stereotyping alternative livelihoods</li> </ul>
Suitable climatic conditions to support alternative livelihood in rangelands	<ul style="list-style-type: none"> <li>Low diversity of livelihood resources from lack of technologies and investments</li> </ul>	<ul style="list-style-type: none"> <li>Investments into suitable alternative livelihoods based on climatic suitability and technology access</li> <li>Leveraging (taking advantage) of the existing technologies</li> </ul>	<ul style="list-style-type: none"> <li>Financial support</li> <li>Climate change</li> <li>Range resource degradation</li> </ul>
Technology availability to exploit the alternative livelihoods	<ul style="list-style-type: none"> <li>Limited research and technology development on rangeland products</li> </ul>	<ul style="list-style-type: none"> <li>Need to invest in technology improvement and adaptation to local conditions</li> </ul>	<ul style="list-style-type: none"> <li>Changing technology</li> <li>Inadequate financial resources</li> <li>Diverse market and customer preferences</li> </ul>
Already some adoption of the alternative livelihoods by pastoral communities is happening	<ul style="list-style-type: none"> <li>There is slow adoption by communities on alternative livelihoods technologies</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building</li> <li>Awareness creation</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate financial resources</li> <li>Social and cultural beliefs</li> <li>Market dynamics</li> </ul>



Existence of indigenous knowledge on Alternative production systems	<ul style="list-style-type: none"> <li>Declining or eroding indigenous knowledge on alternative livelihoods</li> <li>Limited documentation of indigenous knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Proper documentation of the indigenous knowledge and leveraging of existing resources</li> </ul>	<ul style="list-style-type: none"> <li>Modernization</li> <li>Limited finances to documents and educate</li> </ul>
<b>WEAKNESS</b>	<b>ADDRESS WHAT ISSUE</b>	<b>WHAT TO DO WITH WEAKNESS</b>	<b>THREATS/ LIMITATIONS</b>
Limited technology to exploit the alternative livelihoods E.g. Lack of tools, equipment's and skills on sustainable harvesting like gums and resins	<ul style="list-style-type: none"> <li>Unsuitable exploitation activities leading to depletion, degradation</li> <li>Low production of rangeland products/ regeneration</li> </ul>	<ul style="list-style-type: none"> <li>Capacity building on alternative livelihoods</li> <li>Introduction of efficient and appropriate technology for exploitation</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate financial resources</li> <li>Changing technology</li> </ul>
Limited involvement and control by government on sustainable livelihoods support	<ul style="list-style-type: none"> <li>Vulnerability in exploitation of alternative livelihoods by communities</li> </ul>	<ul style="list-style-type: none"> <li>Increased participation of government and all the stakeholders on exploitation of alternative livelihoods</li> </ul>	<ul style="list-style-type: none"> <li>Limited training opportunities and</li> <li>Limited financial support to address knowledge gaps</li> </ul>
<b>OPPORTUNITY</b>	<b>ADDRESS WHAT ISSUE</b>	<b>WHAT TO DO WITH OPPORTUNITY</b>	<b>THREATS/ LIMITATIONS</b>
Availability of wide ecological zones and landscapes to support alternative livelihoods	<ul style="list-style-type: none"> <li>Lack of test and approval of all technologies in the vast lands</li> </ul>	<ul style="list-style-type: none"> <li>Support availing and test of alternative livelihood technologies</li> <li>Create awareness on the diversification of livelihood opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Limited Financial support</li> <li>Lack of technical capacity</li> </ul>
Communities willingness to adapt to diverse livelihoods	<ul style="list-style-type: none"> <li>Limited livelihood opportunities presented to the communities</li> </ul>	<ul style="list-style-type: none"> <li>Introduce adaptable alternative sources of livelihood(enterprises)</li> </ul>	<ul style="list-style-type: none"> <li>Limited financing</li> <li>Technical capacity of staff and communities</li> <li>Unpredictability of the enterprises/ evolving market dynamics</li> </ul>



## 2.5 PESTEL Analysis for Rangeland Management Strategy in Somalia

This section provides a detailed Political, Economic, Social, Technology, Environmental and Legal (PESTEL) analysis for the strategy in Somalia. The information was collected through a participatory process and from the analysis of information and literature that exhaustively documented all the critical nodes. The table summary is provided in Table 2 below.

**Table 2:** Political, Economic, Social, Technology, Environmental and Legal (PESTEL) Analysis

ASPECT	POSITIVE EFFECTS	NEGATIVE EFFECTS	WHAT SHOULD BE DONE
POLITICAL	<ul style="list-style-type: none"> <li>Regional Political goodwill for support to natural resource management, including</li> <li>Regional legislations and strategies to govern rangeland resource use in place, including Regional Rangeland management strategic framework by IGAD</li> <li>Local politics have strong influence by resource users who strongly support sustainable management and utilization</li> <li>Existence of strong Environmentally friendly traditional resource governance structures that build the development of formal legislations and supported by the government</li> <li>Environmental unfriendly community structures on resource governance</li> </ul>	<ul style="list-style-type: none"> <li>External Political interference</li> <li>Political boundaries on trans-boundary resources makes it difficult to efficiently support resource management in such areas</li> <li>Encroachment on owned resources without proper agreements among users leading to conflicts</li> <li>Community Conflicts from political alignments</li> </ul>	<ul style="list-style-type: none"> <li>The government should fully support sustainable rangeland resource management</li> <li>The government should work closely with development partners and donors to develop appropriate legislations for resource management</li> <li>Awareness creation and sensitization on need to rangeland management by resource users</li> <li>Support for trans-boundary resource management strategies</li> <li>Harmonize the various conflicting legislations local and regional</li> <li>Stakeholder involvement and participation in rangeland management</li> </ul>



ASPECT	POSITIVE EFFECTS	NEGATIVE EFFECTS	WHAT SHOULD BE DONE
ECONOMIC	<ul style="list-style-type: none"> <li>• Huge global market for rangeland products</li> <li>• Rangelands of Somalia have diverse resources with huge economic potentials</li> <li>• Many stakeholders’ involvement in supporting economic utilization of rangeland resource and management</li> <li>• Availability of technological advancement that support sustainable rangeland management</li> <li>• The rangelands of Somalia are a source of Employment creation</li> <li>• Most industries in Somalia are supported by rangeland products and hence increase in industrialization</li> <li>• The rangelands are a great source of communities income diversification and contribute to national GDP</li> <li>• Rangeland have provided huge support to infrastructural growth</li> <li>• Improved standards of living</li> </ul>	<ul style="list-style-type: none"> <li>• Huge markets with unsustainable technologies provides the risk of over-exploitation</li> <li>• Resource use conflict from increasing human population and overexploitation for economic purposes</li> <li>• May lead to land use changes in pursuant to economic gains</li> <li>• Increasing urbanization from economic activities in rangelands may lead to disintegration of useful traditions and culture</li> <li>• Negative land use changes</li> </ul>	<ul style="list-style-type: none"> <li>• The government to support sustainable economic exploitations of rangelands</li> <li>• The government to protect critical resources and cultures of the communities</li> <li>• Need to support capacity building on sustainable utilization of range resources for economic gains</li> <li>• Need to initiate and support rangeland planning, Land use planning and supporting legislations</li> <li>• Need to support and promote mechanisms for conflict resolution mechanisms</li> <li>• Promote alternative livelihoods and Sustainable land use systems</li> </ul>



ASPECT	POSITIVE EFFECTS	NEGATIVE EFFECTS	WHAT SHOULD BE DONE
SOCIAL	<ul style="list-style-type: none"> <li>• Communities still have traditional resource governing structures like working grazing agreements among communities, water use agreements, conflict resolutions etc.</li> <li>• There is a functional traditional/local institutions that has strong ties among families, clans with influence in resource management</li> <li>• The pastoral way of life still exists and support environmental conservation</li> <li>• Pastoralist social (structure) life</li> <li>• The culture still allow for livelihoods diversification</li> </ul>	<ul style="list-style-type: none"> <li>• The traditional structures are threatened with changes happening within socio-cultural changes due to urbanization</li> <li>• Some socio-cultural beliefs still limit alternative livelihoods</li> <li>• The producers are still doing subsistence and social status and prestige despite the opportunities to commercialize leading to overstocking</li> <li>• High illiteracy levels may limit technological adoptions</li> <li>• Community conflicts limits resource management interventions</li> <li>• Conflict among communities</li> <li>• Increasing population growth has also increased over exploitation of rangelands</li> <li>• Increased sedentarization by pastoralists has led to land degradation</li> <li>• Gender mainstreaming is still a big issue in the country with regards to resource ownership, control and management</li> </ul>	<ul style="list-style-type: none"> <li>• Need to support traditional resource governance that has proven positive results</li> <li>• Need to improvement of security for sustainable resources exploitation</li> <li>• Need for recognition and strengthening of the local institutions</li> <li>• Capacity building and awareness creation for communities and resource governors</li> <li>• Need to support formal education and also support planned settlement</li> <li>• Need for land use plans that support sustainable resource exploitation</li> <li>• There is need for gender mainstreaming and inclusion in decisions making processes</li> </ul>



ASPECT	POSITIVE EFFECTS	NEGATIVE EFFECTS	WHAT SHOULD BE DONE
TECHNOLOGICAL	<ul style="list-style-type: none"> <li>• There is an increase in technological advancements in the region and country</li> <li>• Opportunity for technology use in value addition of rangeland resources and products</li> <li>• Technological adoptions will increase creation of job opportunities</li> <li>• Technologies will improve efficiency in management of rangeland resources</li> <li>• Technology will improve information communication for producers, traders and consumers</li> </ul>	<ul style="list-style-type: none"> <li>• Some inappropriate technologies may result to over exploitation of resources</li> <li>• There could be a change due to technology resulting to technology conflicts on ecosystems management</li> <li>• The country has very low or lack of adoption of the technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure all the technologies adopted are tested and proven to be sustainable in rangeland management</li> <li>• Institute Technological conflict resolution mechanisms</li> <li>• Support local technological development through capacity development, research institutions support</li> </ul>
ECOLOGICAL	<ul style="list-style-type: none"> <li>• High diversity of rangeland ecosystem resources supporting ecological functions and services</li> </ul>	<ul style="list-style-type: none"> <li>• High and inappropriate exploitation strategies affecting conservation of ecological systems</li> <li>• Increased land degradation form resource exploitation leading to loss of biodiversity</li> <li>• Increasing threats from invasive species of <i>Prosopis juliflora</i> affecting ecological systems functionality</li> </ul>	<ul style="list-style-type: none"> <li>• Need for policy measures that conserve the ecosystem diversity</li> <li>• Need for support to land rehabilitation and reclamation of denuded lands</li> <li>• Need to increase biodiversity conservation initiatives</li> </ul>
LEGAL	<ul style="list-style-type: none"> <li>• Existence of appropriate regional strategy for management of rangelands by IGAD</li> <li>• Availability of working traditional structures and institutions at local levels in support to sustainable rangelands management</li> <li>• Opportunities to develop legislations and policies on Rangelands with support by partners</li> </ul>	<ul style="list-style-type: none"> <li>• There rangeland are vast and existing regional strategy may inadequately cover all rangeland issues</li> <li>• The community resource governance structures are not fully embraced and protected by the formal systems of governance</li> <li>• There is inadequate awareness on sustainable resource management within laws and policies</li> </ul>	<ul style="list-style-type: none"> <li>• Need for lobby for support to develop legislations, policies and strategies that support sustainable rangeland management</li> <li>• Need to identify and lean from traditional community structure to inform laws, legislations and strategies for sustainable rangeland management</li> </ul>



## 2.6 *Justification for the Rangeland Management Strategy for Somalia*

The rangelands of the world are critical resources that support livelihoods and contribute immensely to the well-being of the society, beside the massive contribution to the economies. Somalia is a member of the IGAD region, and occupies the vast areas classified as rangelands for the regions, contribution greatly to the regional economies from rangeland products, main one being livestock resources. Ecological benefits of the rangelands of the region have no boundaries as well, all the way from ensuring the redress to climate change impacts are mitigated, a role that needs collective efforts. The Regional IGAD rangeland management strategy recognizes the benefits of sustainable rangeland management at regional scale, and thus the need to have this cascaded to country specific level for maximum benefits and localized solutions to the challenges based on the local context. Each country within the region has a role to contribute to the integrated landscape approach in managing the rangelands, a role that needs the entire stakeholder within the states to work together with the respective governments in making this a reality. Notably, the IGAD region rangelands constitute important areas of transboundary resources that should be managed sustainably for the pastoral communities who have for ages interacted in production and trade for sustainable development.

The rangelands of Somalia face a myriad of challenges earlier identified that need coordinated efforts and proper planning by all the stakeholders to secure pastoral communities livelihoods. There is therefore need to develop a rangeland management strategy to address the challenges through a participatory and consultative process. The rangeland management strategy for Somalia therefore aims at ensuring the rangeland resources are managed sustainably with the active involvement of all the stakeholders from the federal state government, regional governments, development partners and the pastoral user groups. This strategy is anchored to supporting the Regional Rangeland Management strategic framework RRMSF and focuses exclusively on issues of rangeland resources management, pastoralism, and the livestock/wildlife interactions, dryland farming and other resource exploitations which are part and parcel of the rangelands of Somalia. The strategy will contribute to the support of the ongoing efforts in enhancing resilience of the communities through coordinated approach and harmonization of the interventions for the benefit of the communities and the country.



## CHAPTER THREE: RANGELAND MANAGEMENT STRATEGY VISION, MISSION AND OBJECTIVES

### 3.1 *Vision*

A Sustainable and resilient Rangeland Ecosystems for increased productivity and improved Livelihoods

### 3.2 *Mission*

Provide leadership and guidance on sustainable rangeland resource management for improved livelihood in Somalia.

### 3.3 *Strategic Objectives*

The broad objective of Rangeland Management Strategy for Somalia is to promote sustainable rangeland resource management for improved livelihoods of the pastoral communities.

The specific strategic objectives are to:

1. Develop measures that promote sustainable rangeland resource management and improve on rangeland health for increased productivity
2. Revitalize pastoral production systems by supporting policies and strategies that increase resilience of the system for better livelihoods
3. Mainstream climate change adaptation and mitigation measures for enhanced productivity and sustainable Rangeland management
4. Enhance sustainable exploitation and marketing of rangeland resources for improved livelihoods of rangeland communities
5. Promote sustainable alternative livelihoods in the rangelands for improved production system

### 3.4 *Strategic Theory of Change*

Rangelands have been greatly impacted by various factors, namely, climate change, land use changes, population increase as well as global development that has increased demand for goods and services. It is widely accepted that sustainable management of rangelands should help address these challenges and reverse the effects of rangelands degradation.

To achieve this, nations need to have strategic frameworks that address the many interlinked issues affecting the rangelands. We envisage that a rangeland management strategy for Somalia will address all the sectors in the rangeland resources, and this will contribute to application of practical solutions that will increase sustainable use, management and governance.

A good strategy developed in a consultative process will focus on addressing community needs that will reduce the vulnerability and increase resilience, with explicit recognition of interactions between ecological and socio-economic factors, coupled with systematic monitoring and





assessment of implementation process with all the key stakeholders in the management of rangelands.

The progress that the strategy will make will significantly rely on the indicators at various level that include national/federal government, federal states and districts level. This can be displayed in a form of a strategic theory of change as follow:

Federal Government	Federal State	District
<ul style="list-style-type: none"> <li>• Rangeland condition for increased productivity enhanced</li> <li>• Sustainable pastoral production systems in the Rangelands of Somalia enhanced</li> <li>• Climate change adaptation and mitigation for resilience in the rangelands increased</li> <li>• Utilization and marketing of rangeland resources enhanced</li> <li>• Alternative livelihoods among the rangelands based-communities in Somalia supported</li> </ul>	<ul style="list-style-type: none"> <li>• Number of policies and strategies targeting rangeland degradation</li> <li>• Number of sector plan implementing sustainable exploitation, management and utilization of rangeland resources</li> <li>• International and regional agreement adopted</li> <li>• Reduce biodiversity loss</li> <li>• Number of working model for rehabilitation of rangeland</li> <li>• Number of policies that support appropriate technologies to sustainably utilize existing alternative livelihoods</li> <li>• State policies that support traditional resource governance institutions and enhance pastoral mobility in rangelands</li> <li>• State level policies that promote increased Livestock productivity in rangelands</li> <li>• Policies that support the development of community adaptation to climate change</li> <li>• Number of policies and strategies that target improving market infrastructure and environment</li> </ul>	<ul style="list-style-type: none"> <li>• Number of districts that have adopted the rangeland strategy and action plan</li> <li>• No of national and state levels programmes incorporating rangeland strategic focus</li> <li>• Number of households able to sustainability utilize rangeland products</li> <li>• Number of market and livestock infrastructure developed</li> <li>• Number of people reached with appropriate rangeland management information through awareness campaigns</li> <li>• Number of county technical staff trained on various sustainable rangeland management aspects</li> <li>• Number of functional rangeland management coordination structures</li> <li>• Percentage of population requiring humanitarian assistance</li> </ul>

Figure 1: Somalia SRM theory of change

## CHAPTER FOUR

### 4.1 Strategy Implementation, Action Plans Monitoring and Evaluation

This section provides for a well synthesized summary of the strategic issues as identified in the SWOT analysis, the respective strategic goals for every issue and the strategic objective to be achieved is summarized in Table 3 below. The table presents clear Strategies to be implemented, the main activities/Actions under every strategy, the measures of achievement, the indicative timelines for achieving the activities and the strategies, the responsible institutions to support the implementation of specific activities and an indicative budget for achieving the outcomes expected.

**Table 3: STRATEGY IMPLEMENTATION, MONITORING AND EVALUATION PLAN**

<b>Strategic Issue 1: There is increased rangeland degradation that has reduced productivity of vegetation and livestock in Somalia</b>							
<b>Strategic goal 1: Enhance rangeland condition for increased productivity</b>							
<b>Strategic objective 1: To develop measures that promote sustainable rangeland resource management and improve on rangeland health for increased productivity</b>							
Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
1.1 Control rangeland degradation	<ul style="list-style-type: none"> <li>To construct soil and water conservation structures to reduce soil erosion in the rangelands</li> </ul>	<ul style="list-style-type: none"> <li>Acreages protected from soil erosion and regenerated</li> <li>Acreages with soil conservation structures</li> <li>number of structures established to control erosion</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate policy and strategy formulation to address sustainable soil and water resource</li> <li>Support regional governments in resource mobilization for soil conservation efforts</li> <li>Link with all stakeholders working on sustainable rangeland management</li> <li>Facilitate government staff capacity development on soil and water conservation</li> </ul>	<ul style="list-style-type: none"> <li>Work with development partners in support to soil and water conservation efforts</li> <li>Support regional efforts in policy and institutions establishments to support soil and water management</li> <li>Promote and create awareness on the need for soil conservation by community</li> <li>Provision of budgetary allocation for construction and maintenance of soil conservation structures</li> </ul>	<ul style="list-style-type: none"> <li>Support Federal governments with soil conservation structures in regions of their operation</li> <li>Support the regional governments with soil and water conservation</li> <li>Support the federal government to acquire technologies for soil conservation</li> <li>Support staff and communities with capacity development on soil conservation</li> <li>Support with community extension services</li> </ul>	6 – 10	To be estimated during strategy implementation planning by the ministry (TBE)



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
				<ul style="list-style-type: none"> <li>• Provide incentives to communities for soil conservation efforts</li> <li>• Establish public private partnership with other stake holders for the initiatives</li> </ul>			
	<ul style="list-style-type: none"> <li>• Massive rangeland reseeded of degraded areas to introduce and protect natural germplasm and increase soil gene bank</li> </ul>	<ul style="list-style-type: none"> <li>• Acreages successfully reseeded</li> <li>• Number of introduced important plant species</li> <li>• -Number of communities benefitting from reseeded areas</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitate with acquiring of important range plants for reseeded</li> <li>• Support with mapping of degraded areas for reseeded</li> <li>• -Support staff and communities with technical and financial support for reseeded efforts</li> <li>• Support with local research for suitable pasture for different areas</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitate with prioritization and mapping of areas for reseeded</li> <li>• Provide local staff for reseeded and ensure sustainability of the implemented activities</li> <li>• Support with local resources mobilization for support to reseeded efforts</li> <li>• Work with communities through mobilization for reseeded efforts</li> <li>• Work with both local and regional development partners in support to reseeded efforts</li> <li>• -Support the communities to access to seeds and support community in seed bulking</li> </ul>	<ul style="list-style-type: none"> <li>• Support both federal government and regional governments in accessing reseeded technologies</li> <li>• Support mapping of reseeded areas</li> <li>• Support communities with reseeded efforts and capacity development of management</li> <li>• Support in the development of institutions that support resource governance in reseeded areas</li> </ul>	6 – 10	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
	Planting of important trees and shrubs (Reforestation and afforestation of rangelands)	-Acreage covered with appropriate trees -Number of important trees propagated and successfully planted in the rangelands -Number of established and in operation tree propagation/ nurseries in the regions/ country	<ul style="list-style-type: none"> <li>•Support with the development of policies and legal framework for afforestation and re-afforestation</li> <li>•Provide budgetary provisions towards afforestation</li> <li>•Provide technical guidance on appropriate trees for afforestation</li> <li>•Promote research for suitable forestry trees and shrubs</li> <li>•Support with resource mobilization to increase afforestation</li> <li>•Support technical staff capacity development in agroforestry</li> <li>•Promote sustainable afforestation practices</li> </ul>	<ul style="list-style-type: none"> <li>• Support with mapping of areas for afforestation for communities</li> <li>• Support with technology acquisition for forestry practices</li> <li>• Identify and provide land for afforestation efforts</li> <li>• Ensure enforcement of forest protection and conservation at regional levels</li> <li>• Support establishment of regional/ local level nursery to provide suitable tree seeds and seedlings for afforestation</li> <li>• Provide budgetary provisions towards afforestation from local resource mobilization</li> </ul>	<ul style="list-style-type: none"> <li>• Provide technical support with agroforestry technologies</li> <li>• Support afforestation efforts including partnerships with schools, colleges, and other institutions</li> <li>• Support both staff and community capacity development in agroforestry/ forestry</li> <li>• Support federal and regional governments in resource mobilization for forestry efforts</li> </ul>	3	
	Development of sustainable grazing plans	Areas/ Regions where integrated grazing plans are practiced -Community institutions/ strategies supported on the traditional grazing resource use mechanism	<ul style="list-style-type: none"> <li>• Promote and facilitate grazing plans development at both local and regional within transboundary resource sharing zones</li> <li>• Facilitate communities with grazing plans development</li> <li>• Ensure institutionalizations of grazing plans with traditional community structures consideration</li> <li>• Establish inter-state grazing plans.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish regional grazing plans development with linkages to other regions</li> <li>• Facilitate with grazing conflicts mitigation and management</li> <li>• Put in place regional policies/strategies and institutions that will take into consideration resource other users</li> <li>• Protect grazing areas from degradations</li> </ul>	<ul style="list-style-type: none"> <li>• Support the federal and regional governments in grazing plans development and legislations of policies/ strategies that support sustainable grazing systems</li> <li>• Support with resource mobilization for development of sustainable grazing plans</li> </ul>	6 – 10	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
			<ul style="list-style-type: none"> <li>•Support establish policies on communal land management</li> <li>•Provision of security to grazers</li> </ul>	<ul style="list-style-type: none"> <li>•Facilitate communities with grazing plans implementation</li> <li>•Facilitate with provision of security and conflicts mitigation measures</li> </ul>	<ul style="list-style-type: none"> <li>•Support government staffs and communities with technical support and capacity development on grazing management</li> </ul>		
1.2 To promote sustainable exploitation, management and utilization of rangeland resources	<ul style="list-style-type: none"> <li>•Support protection of water catchments</li> <li>•Develop adequate water harvesting structures for domestic and livestock use</li> <li>•Control charcoal production on a sustainable production</li> <li>•Protect indigenous plant species</li> <li>•Protect land from invasive plant species</li> <li>•Rehabilitate degraded lands with gabions, water holding and control structures</li> </ul>	<ul style="list-style-type: none"> <li>• Number of water catchments areas sustainably protected</li> <li>• Acreage of land under soil and water conservation measures</li> <li>• -Measure of acreage under reduced tree loss from charcoal production</li> <li>• Acreages freed from invasive species and protected</li> </ul>	<ul style="list-style-type: none"> <li>•Support the developed policies and legislations to support sustainable resource management</li> <li>• Support development and implementation of strategies to operationalize the policies on sustainable exploitation and utilization of rangeland</li> <li>•-Support technology development and acquisition for sustainable resource management</li> </ul>	<ul style="list-style-type: none"> <li>•To support the regional customization and implementation of policies that ensure sustainable resource utilization in the rangelands</li> <li>•Support the enforcement of rules and regulations to natural resource utilization and management</li> <li>•-Support awareness on sustainable utilization and management of natural resources for communities</li> <li>•Allocate resource for sustainable natural resource management</li> <li>•Support government staff with skills and knowledge on resource management</li> <li>•Avail communities with working technologies that promote sustainable resource management</li> </ul>	<ul style="list-style-type: none"> <li>•Support the federal and regional governments in mobilization and provision of technical and financial support for sustainable exploitation of natural resources in the rangelands</li> <li>•Support efforts for awareness creation among the community on sustainable natural resource management</li> <li>•Support extension services on sustainable resource utilization</li> </ul>	3	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
1.3 Promote sustainable development approaches	<ul style="list-style-type: none"> <li>Identify and promote appropriate development interventions/ technologies in rangelands</li> <li>Review of policies to guide exploitation and utilization of key resources like water, trees, shrubs, medicinal plants, gums and resins etc.</li> <li>develop appropriate strategies to guide development in the rangelands following ecological principles for all the key infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Acreages of land under sustainable rangeland management</li> <li>Policies and Legislations that support sustainable development enacted</li> </ul>	<ul style="list-style-type: none"> <li>Review/ develop policies and strategies that support sustainable water development</li> <li>Put in place protocols for relevant bodies in support to sustainable development procedures</li> </ul>	<ul style="list-style-type: none"> <li>Create awareness to communities on sustainable development approaches</li> <li>Resource mobilization for sustainable development projects</li> <li>Customize and implement policies and strategies that support sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Support the federal and regional governments with resource mobilization for sustainable development</li> <li>Support the implementation of sustainable development activities in the rangelands</li> <li>Support community capacity awareness on sustainable development</li> </ul>	6 – 10	
1.4 Establish efforts to reduce biodiversity loss	<ul style="list-style-type: none"> <li>Develop policies that protect and conserve biodiversity</li> <li>Create community awareness on biodiversity conservation and management</li> <li>Strengthen community governance on biodiversity conservation</li> <li>Audit and Valuation of biodiversity and their ecological roles in Somalia</li> </ul>	<ul style="list-style-type: none"> <li>Number of key biodiversity areas protected and conserved</li> <li>Level of community awareness on biodiversity conservation</li> <li>Presence of policies and strategies applicable in biodiversity conservation in Somalia</li> <li>Reduced biodiversity loss</li> </ul>	<ul style="list-style-type: none"> <li>Support the review and enact policies and strategies that support biodiversity conservation</li> <li>Support with resource mobilization for biodiversity conservation</li> </ul>	<ul style="list-style-type: none"> <li>Support with resource mobilization for biodiversity conservation at regional level</li> <li>Support with identification of biodiversity hotspots at regional level</li> <li>Support with customization and implement policies and strategies that support biodiversity conservation</li> <li>Mainstream environmental issues in decision and plans to support conservation of biodiversity</li> <li>Create awareness on the importance of community conservation of biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Support the federal and regional governments with financial resource mobilization for biodiversity conservation</li> <li>Support with national and regional mapping of biodiversity hotspots under threats</li> <li>Support biodiversity conservation initiatives</li> <li>Provide technical and financial support on biodiversity conservation to communities</li> </ul>	3	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
1.5 Control and management of invasive plant species	<ul style="list-style-type: none"> <li>Identify and map various invasive plant species in Somali</li> <li>Map all the areas affected by invasive plant species</li> <li>Develop strategies to address invasive species control and management</li> <li>Create community awareness and impact of the species</li> <li>Engage research institutions to collaborate with stakeholders on invasive species management</li> <li>Develop technologies and implement control measures</li> <li>Identify control measures from other parts of the region that has worked and implement</li> </ul>	<ul style="list-style-type: none"> <li>Number of invasive species identified</li> <li>Acreage of invaded areas mapped</li> <li>Number of awareness creation forums at community levels</li> <li>Control measures identified and tested with community</li> <li>Policies developed to address invasive species</li> <li>Number of linkages with research institutions</li> <li>Technologies developed and adopted to undertake control measures</li> </ul>	<ul style="list-style-type: none"> <li>Support the development and implementation of policies that control invasive species#</li> <li>Support with resource mobilization to address invasive species menace</li> <li>Support with national mapping of invaded areas</li> <li>Establish, strengthen review and enact policies on invasive species</li> <li>Provide capacity building on the status of invasive species across counties and along the transboundary</li> </ul>	<ul style="list-style-type: none"> <li>Support with community extension on invasive species identification, management and utilization</li> <li>Support with mapping of regional invaded areas</li> <li>Customize and implement policies on invasive species</li> <li>Enforcement of rules and regulations to control invasive species</li> <li>Creation of awareness on sustainable management of invasive species</li> </ul>	<ul style="list-style-type: none"> <li>Support the federal and regional government with resource mobilization for combating invasive species</li> <li>Support initiatives to control invasive species</li> <li>Provide technical and financial support to control</li> <li>Community extension support on invasive species management</li> </ul>	3 – 10	
1.6 Establish a working model for rehabilitation of rangeland and implement	<ul style="list-style-type: none"> <li>Develop a plan and an approach that ensures sustainable rehabilitation of the rangelands from past efforts and lessons learned</li> </ul>	<ul style="list-style-type: none"> <li>The number of appropriate models developed for different agro ecological zones</li> <li>Number of regions applying developed models</li> </ul>	<ul style="list-style-type: none"> <li>Resource mobilization to support the development of appropriate models for rangeland rehabilitation</li> <li>Testing of working and applicable models for upscaling</li> <li>Support with documentation and lessons learned from implementation</li> </ul>	<ul style="list-style-type: none"> <li>Support communities with the implementation of selected models</li> <li>Document on lessons learned from implementation processes</li> <li>Support with extension services during implementation of the models</li> <li>Adapt and implement the use of identified appropriate models for rangeland rehabilitation</li> </ul>	<ul style="list-style-type: none"> <li>Financial support with development and implementation of the identified models</li> <li>Support with community application of the models through extension support</li> <li>Support and promote the use of appropriate models for rangeland rehabilitation</li> </ul>	6	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
1.7 Increase community awareness on the value of the rangelands (promote eco-literacy)	<ul style="list-style-type: none"> <li>Support pastoral school fields /learning centers to rangeland resources</li> <li>Train communities on resource assessment and management</li> <li>Carry out total valuation of rangeland resources to facilitate the formulation of the economic value of rangelands</li> </ul>	<ul style="list-style-type: none"> <li>Number of people trained and applying knowledge</li> <li>Number of Pastoral field schools (PFS) supported</li> <li>The value of rangeland resource identified</li> </ul>	<ul style="list-style-type: none"> <li>Support with establishing PFS</li> <li>Support with community training</li> <li>Support with resource mobilization for PFS</li> <li>Provide support for valuation of total economic value of rangeland resources</li> </ul>	<ul style="list-style-type: none"> <li>Support with land for establishment of PFS</li> <li>Support with resource mobilization for community trainings</li> <li>Support with the valuation of rangeland resources</li> <li>provide information for valuation of resources</li> </ul>	<ul style="list-style-type: none"> <li>Support with resource mobilization to establish PFS</li> <li>Support with capacity development on PFS</li> <li>Support the economic valuation of rangeland resources</li> </ul>	3	

**Strategic Issue 2: There is Reduced Pastoral Productivity that has affected community resilience and loss of livelihoods**

**Strategic goal 2: Enhanced Sustainable pastoral production systems in the Rangelands of Somalia**

**Strategic objective 2: Revitalize pastoral production systems by supporting policies and strategies that increase resilience of the system for better livelihoods**

Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
2.1 Enhance pastoral mobility in rangelands	<ul style="list-style-type: none"> <li>Support communities to come up with grazing plans</li> <li>Provide legislations that promote pastoral mobility#</li> <li>Develop negotiated grazing plans to ensure mobility within transboundary areas</li> <li>Establish policy and legal framework to govern the implementation of grazing plan</li> <li>Identify and map seasonal grazing and movement of livestock</li> <li>Promote security provision for grazing communities</li> </ul>	<ul style="list-style-type: none"> <li>Policies and legal frameworks done to support mobility</li> <li>Developed working grazing systems in place</li> <li>Working security measures that increase mobility</li> <li>Number of designated grazing routes identified within counties and across counties</li> </ul>	<ul style="list-style-type: none"> <li>Support with legislations to promote pastoral mobility</li> <li>Support with resource mobilization for mobile pastorals' service provision</li> <li>Support the process of development of grazing plans</li> <li>Undertake identification and mapping</li> <li>Provide policy guidance</li> <li>Provide funds</li> </ul>	<ul style="list-style-type: none"> <li>Support with development of grazing plans at regional levels</li> <li>Support with security provision at regional zones for mobile pastoralists</li> <li>Support communities in the implementation of grazing plans</li> <li>To ensure adoption, implementation and enforcement of agreed upon grazing plans</li> <li>Enforce developed grazing plans</li> <li>Promote stakeholder involvement</li> <li>Support with funds</li> </ul>	<ul style="list-style-type: none"> <li>Support the federal and regional governments with technical aspects in development of policies and grazing plans for the communities</li> <li>Support the communities with extension services for mobile pastoralists</li> <li>Provide technical and financial support for the development of grazing plans</li> <li>Sensitization by NGOs, CBOs among others</li> <li>Development partners to lobby government to facilitate mapping</li> </ul>	6	





Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
					<ul style="list-style-type: none"> <li>• Create linkage between regional states, transboundary areas in order to identify transboundary stock routes</li> </ul>		
2.2 Establish traditional resource governance institutions	<ul style="list-style-type: none"> <li>• Establish and legally recognize existing tradition resource governance institutions and arrangements</li> <li>• Strengthen the customary and traditional institutions</li> <li>• Document and upscale important traditional resource governance practices</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional resource governance institutions identified and documented</li> <li>• Traditional resource governance structures embedded in government legislations to support resource governance</li> <li>• Operation customary bi-laws in place</li> </ul>	<ul style="list-style-type: none"> <li>• Establish the identification and documentation of traditional resource governance structures</li> <li>• Support the inclusion of traditional structures in legislations</li> <li>• Provide a platform for strengthening customary institutions and recognize the identified institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Promote traditional resource governance at regional levels</li> <li>• Support the extension and awareness creation for communities on traditional resource governance structures</li> <li>• Support the development and operation of the identified customary laws</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate the effective implementation of customary laws</li> <li>• Support with community awareness on resource governance</li> <li>• Provide technical support on traditional structures in modern resource management processes</li> </ul>	6	
2.3 Identify and protect traditional dry season grazing areas/Grazing Reserves	<ul style="list-style-type: none"> <li>• Identify and map all seasonal grazing areas</li> <li>• Support with resource use calendars for grazing lands</li> <li>• Create community awareness on seasonal grazing plans</li> <li>• Develop legislation that support seasonal resource use plans of wet and dry season grazing areas</li> </ul>	<ul style="list-style-type: none"> <li>• Legislations developed to support traditional resource use plans</li> <li>• Number of operational grazing areas plans developed</li> </ul>	<ul style="list-style-type: none"> <li>• Support the mapping and gazette grazing areas</li> </ul>	<ul style="list-style-type: none"> <li>• Support and coordinate development partners and communities with grazing plans development</li> </ul>	<ul style="list-style-type: none"> <li>• Support with community capacity development, mobilization and extension</li> <li>• Support the implementation of grazing plans and enforcement of community grazing plans</li> </ul>	6	
2.4 Increase Livestock productivity in rangelands	<ul style="list-style-type: none"> <li>• Establish proper feeding strategies for pastoral herds</li> <li>• provide livestock breeds improvement programme</li> </ul>	<ul style="list-style-type: none"> <li>• Increased productivity at household level</li> <li>• Reduced livestock mortality</li> <li>• Increased feed availability</li> </ul>	<ul style="list-style-type: none"> <li>• Develop livestock feed and nutrition strategy</li> <li>• Review and develop appropriate livestock policies that enhance productivity</li> </ul>	<ul style="list-style-type: none"> <li>• Support the regional policy on the development of animal feeding strategy</li> <li>• Support with establishment dry season feed reserves</li> </ul>	<ul style="list-style-type: none"> <li>• Support the community interventions to increase livestock productivity</li> <li>• Promote feed conservation technologies for communities</li> </ul>	3	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
	<ul style="list-style-type: none"> <li>Establish animal health and husbandry practices for communities</li> <li>Promote quality feed production and feed conservation</li> <li>Promote and enhance keeping of adapted livestock species</li> <li>Establish feedlot for animal finishing for the market</li> </ul>	<ul style="list-style-type: none"> <li>Increased dry season impacts on livestock health and body conditions</li> <li>Access to better markets of healthy animals</li> <li>livestock productivity</li> <li>Increase in feed availability</li> <li>Number of feedlots established</li> </ul>	<ul style="list-style-type: none"> <li>Support to research and extension on appropriate livestock breeds, feedstuff and disease</li> <li>Develop strategy and standards</li> <li>Develop training manuals for capacity building</li> <li>Organize exchange programs control</li> </ul>	<ul style="list-style-type: none"> <li>Promote rangeland plants conservation for feed</li> <li>Support process of introduction and adoption of the local feed conservation strategies</li> <li>Promote integrated crop-livestock production system</li> <li>Provide conditions for sustainable implementation of livestock improvement programmes</li> <li>Develop training manuals for capacity building</li> <li>Organize exchange programs</li> <li>Provision of funds</li> </ul>	<ul style="list-style-type: none"> <li>Support rangeland rehabilitation to increase feed availability</li> <li>Support policy and strategy formulations to increase livestock productivity</li> <li>Capacity building, support funding</li> </ul>		
2.5 Develop a mechanism for proper stocking of the rangelands	<ul style="list-style-type: none"> <li>Train communities on proper stocking based on available feed resources</li> <li>Facilitate communities to do sustainable offtake and restocking in the range</li> <li>Capacity building of communities on need for proper stocking rates</li> <li>Develop livestock markets and processing centers for destocked animals</li> <li>Develop livestock trade and export market requirements</li> </ul>	<ul style="list-style-type: none"> <li>Communities doing offtake and restocking based on seasonal calendars</li> <li>Communities increased awareness on livestock keeping as a business</li> </ul>	<ul style="list-style-type: none"> <li>Provide support to communities on proper stocking trainings</li> <li>Resource mobilization to support stocking</li> <li>Provide technical and financial support for capacity building</li> <li>Establish livestock export markets infrastructure</li> <li>Support livestock value chain development in Somalia</li> </ul>	<ul style="list-style-type: none"> <li>Provide community capacity development process and implementation of stocking rates</li> <li>Establish regional livestock infrastructure development</li> <li>Support on livestock trade policy establishment</li> </ul>	<ul style="list-style-type: none"> <li>Support the process of communities' awareness, extension and implementation of proper stocking rates</li> <li>Support the federal and regional government in resource mobilization for rangeland management</li> </ul>	6	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
2.6 Promote and Enhance the adoption of appropriate pasture establishment and conservation of in pastoral areas	<ul style="list-style-type: none"> <li>Identify and map appropriate pasture production areas.</li> <li>Support with technical capacity and inputs for production of appropriate pasture species</li> <li>Support the development of strategic feed reserves</li> <li>Develop national feed policy</li> </ul>	<ul style="list-style-type: none"> <li>Identified and mapped pasture production areas</li> <li>Increase in volumes of pasture feeds produced</li> <li>Number of functional strategic feed reserves established</li> </ul>	<ul style="list-style-type: none"> <li>Support with financial and technical in pasture production areas mapping</li> <li>Support with resource mobilization for pasture production and conservation</li> <li>Support with research collaborations on technologies and extension for pasture production</li> <li>Promote appropriate pasture production and conservation technologies</li> </ul>	<ul style="list-style-type: none"> <li>Support with the development of regional strategies for pasture production</li> <li>Support with extension and adoptions of appropriate pasture production technologies</li> <li>Mobilize and capacity building of communities in increasing pasture production and conservation</li> </ul>	<ul style="list-style-type: none"> <li>Promote community pasture production interventions</li> <li>Support federal and regional government to access technologies and inputs for pasture production</li> <li>Support the implementation of appropriate pasture production technologies</li> </ul>	6	

**Strategic issue 3: There is low climate change adaptation and mitigation in Somalia that has affected rangeland productivity and sustainability**

**Strategic goal 3: Increase climate change adaptation and mitigation for resilience in the rangelands**

**Strategic objective 3: To mainstream climate change adaptation and mitigation measures for enhanced productivity and sustainable Rangeland**

Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
4.1 Develop community adaptation to climate change strategies	<ul style="list-style-type: none"> <li>Establish communities that increase coping mechanisms to climate change</li> <li>Develop Climate change action plan and response Strategies for communities</li> </ul>	<ul style="list-style-type: none"> <li>Developed strategy to adapt communities to climate change</li> <li>Regions that have implemented Climate change action plan and response strategy</li> </ul>	<ul style="list-style-type: none"> <li>Support with financial for climate change adaptation strategies</li> <li>Provide leadership in linking global and regional efforts with local strategies to adapt to climate change</li> <li>Facilitate communities awareness creation and capacity building on climate change issues</li> </ul>	<ul style="list-style-type: none"> <li>Support with regional climate change adaptation strategies</li> <li>Support with community awareness and implementation of proven working strategies to adapt to changes</li> </ul>	<ul style="list-style-type: none"> <li>Support with Community mobilization for climate adaptation efforts</li> <li>Support with community and staff Capacity building and awareness creation in Somalia</li> <li>Provide financial and technical support to climate change adaptation and mitigation measures</li> </ul>	6	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
4.2 Initiate the identification and promotion of climate change opportunities for communities	<ul style="list-style-type: none"> <li>Establish with the identification of opportunities on climate change and variability</li> </ul>	<ul style="list-style-type: none"> <li>Identified and documented opportunities for promotion</li> <li>Use of appropriate technologies to address the identified opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Support with policy development and implementation at national level</li> <li>Facilitate capacity building of staff and communities</li> </ul>	<ul style="list-style-type: none"> <li>Support to regional adaptation efforts for community</li> <li>Support with communities adaptation strategies development</li> </ul>	<ul style="list-style-type: none"> <li>Support with community and staff capacity building and awareness creation</li> <li>Provide financial and technical support</li> </ul>	6	
4.3 Establish the identification, documentation and dissemination of traditional/ indigenous coping mechanisms to climate change and variability	<ul style="list-style-type: none"> <li>Collection and documented traditional knowledge on climate change adaptations and mitigations</li> </ul>	<ul style="list-style-type: none"> <li>Documentation of community knowledge for disseminations use in future</li> </ul>	<ul style="list-style-type: none"> <li>Support in community documentation process</li> </ul>	<ul style="list-style-type: none"> <li>Community mobilization for information support</li> <li>Facilitate Capacity building and awareness creation of communities and staff</li> <li>Facilitate data collection</li> </ul>	<ul style="list-style-type: none"> <li>Support with Community mobilization</li> <li>Support with staff and community capacity building and awareness creation</li> <li>Provide financial and technical support</li> </ul>	6	
	<ul style="list-style-type: none"> <li>Dissemination information sharing with stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Dissemination materials developed</li> <li>Communities reached with dissemination and adoption</li> <li>Increased awareness and application of indigenous coping mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>Financial, staff and technical Support to community dissemination process with</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate dissemination forums at regional level</li> <li>Community mobilization</li> </ul>	<ul style="list-style-type: none"> <li>Community mobilization</li> <li>Capacity building and awareness creation of communities</li> <li>Provide financial and technical support</li> </ul>	6	

**Strategic Issue 4. Underutilization of rangeland resources for sustainable livelihoods in Somalia**

**Strategic Goal 4: Enhance the utilization and marketing of rangeland resources**

**Strategic Objective 4: Improve sustainable utilization and marketing of rangeland resources for sustainable livelihoods**

Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
4.1 Improve market infrastructure	1. Build, rehabilitate and maintain road infrastructure	- No. of road build, rehabilitated and maintained.	- Lead the process and provide technical and financial resources to ensure appropriate road network	- Facilitate the process of infrastructure development/ improvement	- Provide financial resources and facilitate international linkages	10	
	2. Improve, construct and rehabilitate market for Rangeland products	- No. of markets improved No. of markets constructed No. of markets rehabilitated	- Provide technical and financial supports - Provide conducive policy environment - Lead and foster PPP	- Provide technical and financial support - Lead the construction and improvement - Equip the facilities	- Support Financially - Build capacity of relevant personnel - Generate lessons and improve the processes	5	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
	3. Improve, construct and rehabilitate livestock related infrastructure	<ul style="list-style-type: none"> <li>- No. of sale yards Improved, constructed and rehabilitated</li> <li>- No. of holding grounds Improved, constructed and rehabilitated</li> <li>- no. of slaughter houses and abattoirs Improved, constructed and rehabilitated</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure enabling policy environment</li> <li>- Provide technical and financial supports</li> <li>- Develop and inforce critical relevant standards</li> <li>- Provide technical backstopping</li> </ul>	<ul style="list-style-type: none"> <li>- Lead the construction, improvement and facilitate the processes</li> <li>- Oversee the operation and standards enforcement</li> <li>- provide financial resources</li> </ul>	<ul style="list-style-type: none"> <li>- Fill the capacity gap</li> <li>- Resource Mobilization and linkages</li> <li>- Monitor and evaluate progress and generate lessons.</li> </ul>	3 – 6	
4.2 Improve marketing environments and experience	1. Establish market association/ cooperatives for various products to improve profitability	<ul style="list-style-type: none"> <li>- No of associations established and functional</li> <li>- No. of products marketed through the associations</li> <li>- No. of cooperatives established</li> </ul>	<ul style="list-style-type: none"> <li>- Put in place an enabling policy framework</li> <li>- Provide financial resources.</li> <li>- Establish the required institutions and structure</li> </ul>	<ul style="list-style-type: none"> <li>- Enact relevant required laws</li> <li>- Facilitate the process of establishment</li> <li>- Manage the association and provide the required support</li> </ul>	<ul style="list-style-type: none"> <li>- Provide technical and financial input</li> <li>- provide capacity building on various issues related the association function</li> <li>- Generate and share lessons</li> </ul>	3 – 6	
	2. Facilitate access to credit and finance	<ul style="list-style-type: none"> <li>- No of rangeland based HH accessing credit facilities</li> <li>No. of funding institutions enabling rangeland based HH access to finance</li> <li>- Amount of money (\$) used to finance rangeland based HH</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure enabling policy environment</li> <li>- coordinate the process of resource mobilization</li> <li>- Provide incentives to lending institutions</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitate the process at the state levels</li> <li>- Provide technical and financial resources</li> <li>- Implement the polices</li> <li>- monitor and evaluate imple-mentation</li> </ul>	<ul style="list-style-type: none"> <li>- share relevant experience on credit financing</li> <li>- Resource mobilization</li> <li>- Provide technical support</li> <li>- Monitor and improve the operation through lessons and feedback</li> </ul>	3	
	3. Encourage diversification of range products and value addition	<ul style="list-style-type: none"> <li>- No. of value added products developed and promoted</li> <li>- No of people trained on value addition</li> <li>- No of products resulting from the value addition</li> </ul>	<ul style="list-style-type: none"> <li>- Legislate a value addition and product diversification policies</li> <li>- Put in place relevant product standards</li> <li>- Facilitate marketing strategies (Expo and others)</li> <li>- Provide technical and financial supports</li> </ul>	<ul style="list-style-type: none"> <li>- Legislate and implement value addition and products diversification policies</li> <li>- Coordinate stakeholders engagements</li> <li>- Provide technical and financial supports</li> </ul>	<ul style="list-style-type: none"> <li>- Provide capacity building</li> <li>- Provide financial and technical supports</li> <li>- facilitate the access to new technologies and monitor adoption</li> <li>- Monitor and improve the operation through lessons and feedback</li> </ul>	5	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
	4. Carryout Research on product development	<ul style="list-style-type: none"> <li>- No. of market needs assessment done</li> <li>- No. of niche markets identified (organic products)</li> <li>- No. of gaps on quality and quantity of products done</li> <li>- No. of product brands developed</li> </ul>	<ul style="list-style-type: none"> <li>- Legislate relevant policies on marketing, branding, standards among other issues</li> <li>- Provide financial and technical support</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitate/ carryout research activities</li> <li>- Create an enabling policy environment</li> <li>- provide technical and financial backstopping</li> <li>- Mainstream the research finding into policies</li> </ul>	<ul style="list-style-type: none"> <li>- Provide technical and financial resources</li> <li>- Share relevant experience from the region</li> <li>- Monitor and improve the operation through lessons and feedback</li> <li>- Support in dissemination of the findings</li> </ul>	3	
	5. Develop/ use a market information system (MIS) in line with the livestock strategy	<ul style="list-style-type: none"> <li>- A functional market information system</li> </ul>	<ul style="list-style-type: none"> <li>- Provide legal framework and a home institution</li> <li>- provide IT support</li> <li>-Provide financial support and technical backstopping</li> </ul>	<ul style="list-style-type: none"> <li>- Coordinate with Federal government on establishment and operationalization of MIS</li> <li>- provide technical and financial support – facilitate inter-states marketing fora</li> </ul>	<ul style="list-style-type: none"> <li>- Provide relevant experiences from other regions</li> <li>- Build capacity of state actors to fully function the MIS</li> <li>- Provide technical and financial support</li> <li>- Monitor and improve the operation through lessons and feedback</li> </ul>	3 – 6	
	6. Establish product identification and traceability systems in line with livestock and other subsectors/ products strategies	<ul style="list-style-type: none"> <li>- Functional product identification and traceability systems</li> <li>- No. of range based products identified and certified</li> <li>- No. of products theft and recovery</li> <li>- Amount of money (\$) generated from selling certified products</li> </ul>	<ul style="list-style-type: none"> <li>- legislate relevant policies</li> <li>- Develop and inforce critical relevant standards</li> <li>- Provide technical and financial supports</li> <li>- Provide technical backstopping</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitate system establishment</li> <li>- Oversee the operation and standards enforcement</li> <li>- Provide financial resources</li> <li>- Provide technical support (IT and personal)</li> </ul>	<ul style="list-style-type: none"> <li>- share relevant experiences from other regions</li> <li>- Resource Mobilization and linkages</li> <li>- provide capacity building</li> <li>- Monitor and evaluate progress and generate lessons.</li> </ul>	6 – 10	



**Strategic Issue 5. The communities' have over dependency on unsustainable livelihood options like charcoal burning in the rangelands instead of engaging in environmental sustainable alternative livelihoods**

**Strategic Goal 5: Support alternative livelihoods among the rangelands based-communities in Somalia**

**Strategic Objective 5: To support sustainable alternative livelihoods among the rangelands based-communities in Somalia**

Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
5.1 Support the existing alternative livelihood	1. Identification of alternative livelihoods and Awareness creation	- No. of alternative livelihood identified - No. of people aware about the alternative livelihoods	- Put Legislations in place to facilities identification and adoption of alternative livelihoods - Provide technical and financial supports	- Put Legislations in place to facilities identification and adoption of alternative livelihoods - Coordinate stakeholders engagements - Provide technical and financial backstopping	- Provide capacity building - Provide financial and technical supports - facilitate the actualization of the alternative livelihoods and adoption rates - Monitor and improve the operation through lessons and feedback	5 – 10	
	2. Develop business models and trade framework and enhance the adoption of the alternative livelihoods	No. of business models developed and operational - No. of alternative livelihood adopted - No. of people practicing alternative livelihoods	- Oversee the development of business models - Put in place appropriate policy guidelines - provide financial support	-Develop relevant State legal framework to facilitate operationalization business models - strengthen extension services to speed up the adoption rates - Provide financial backstopping	- Share lesson on business models success - Resource mobilization and technical support - Monitor adoption level and share feedback	3 – 6	
	3. Develop and operate Pastoral Field School models as a forum to enhance adoption of alternative livelihoods	- No of Pastoral Field School models developed and operational - No of Pastoralist Trained - Amount of money (\$) committed to support Pastoral Field School models	- Provide policy framework on Pastoral Field School models - Technical and financial support - Oversee the development and operationalization of Pastoral Field School models	- Implement policy guideline on Pastoral Field School models - Provide personal support (Extension workers) - Coordinate stakeholders engagement and support	- Resource Mobilization - Provide technical backstopping - Monitor progress and provide regular feedback	3	
5.2 Enhance appropriate technologies to sustainably utilize existing alternative livelihoods	1. Identify appropriate technologies ( throughout the value chain)	- No of products chain targeted - No. of technologies and enterprises identified - No. of technologies and enterprises adopted	- Facilitate legal framework for appropriate technologies - Legislate appropriate laws on value chain and enterprises development - Provide technical support	- Put Legislations in place to facilities identification and adoption of appropriate enterprises - Coordinate stakeholders engagements - Provide technical and financial backstopping	- Share lessons from the region on the enterprises and value chain development - Provide capacity building and financial supports - Monitor operation and share lessons and feedback	2	



Strategies	Activities	Measure of achievement	Responsibility			Timeline (Years)	Required budget(USD)
			Federal Government	Federal States Authority	Non- state Actors		
	2. Embark on research on technologies, enterprises and indigenous knowledge on key rangeland products	<ul style="list-style-type: none"> <li>- No of Gaps identified and recommendations</li> <li>- No of enterprises identified</li> <li>- No. of key indigenous knowledge documented</li> </ul>	<ul style="list-style-type: none"> <li>- Provide a research and documentation coordination framework</li> <li>- Legislate a framework that will require National Research stations and Universities to lead the these research and documentation</li> </ul>	<ul style="list-style-type: none"> <li>- Implement the research and documentation coordination framework</li> <li>- Provide technical and financial backstopping</li> <li>- Facilitate National Research stations and Universities to lead the research and documentation</li> </ul>	<ul style="list-style-type: none"> <li>- Share lessons from the region on the research and documentation</li> <li>- Provide capacity building and financial supports</li> <li>- Monitor operation and share lessons and feedback</li> </ul>	5	
	4. Determine the impact of climate change on alternative livelihoods	<ul style="list-style-type: none"> <li>- No of research conducted on livelihoods and climate changes</li> <li>- No. of dissemination products produced and distributed</li> </ul>	<ul style="list-style-type: none"> <li>- Legislate a framework that will require National Research stations and Universities to lead the these research and documentation</li> <li>- Include this as part of Somalia's commitment to climate change adaptation</li> <li>- Provide Technical and financial support</li> </ul>	<ul style="list-style-type: none"> <li>- Implement the research and documentation</li> <li>- Provide technical and financial backstopping</li> <li>- Facilitate National Research stations and Universities to lead the research and documentation</li> </ul>	<ul style="list-style-type: none"> <li>- Partner with National Research stations and Universities to conduct the research</li> <li>- Share lessons from the region on the research and documentation</li> <li>- Provide capacity building and financial supports</li> </ul>	1 - 2	
	5. Mainstream the findings of the research on climate change and alternative livelihoods on policies and institutional learning including pastoral field schools	<ul style="list-style-type: none"> <li>- No. of policies that include issues on climate and alternative livelihoods</li> <li>- No. of learning curriculum that are climate sensitive.</li> <li>- No. of pastoral field school, training curriculum with climate and alternative livelihoods issues</li> </ul>	<ul style="list-style-type: none"> <li>- Provide financial, technical and coordination backstopping</li> <li>- Include the research finding in the relevant policies at the federal levels</li> </ul>	<ul style="list-style-type: none"> <li>- Include the research finding in the relevant policies at the Federal States levels</li> <li>- Promote climate smart practices and technologies</li> <li>Provide coordination support</li> </ul>	<ul style="list-style-type: none"> <li>- Provide capacity building on mainstreaming of climate issues into policies</li> <li>- Provide financial and technical supports</li> <li>- document and disseminate the lessons learned</li> </ul>	5	
5.2 Support development of tourism hospitality sector for the country	Support the ministry of tourism and culture to strengthen the sector	<ul style="list-style-type: none"> <li>-No of tourist visiting per year</li> <li>-Amount of Earnings from tourism</li> </ul>	<ul style="list-style-type: none"> <li>-Promote the countries tourism sector</li> <li>-incentives to investors in tourism</li> <li>-enhanced security of tourists</li> </ul>	<ul style="list-style-type: none"> <li>-Promote the countries tourism sector</li> <li>-incentives to investors in tourism</li> <li>-enhanced security of tourists</li> </ul>	<ul style="list-style-type: none"> <li>Provide financial and technical supports</li> <li>- document and disseminate the lessons learned</li> </ul>	1-5	





## CHAPTER FIVE: DELIVERING THE STRATEGY AND ACTION PLAN

### 5.1 Enablers

To deliver the strategy and action plans activities outlined in chapter four (4), which are wide range of actions required to fully realize the strategic objectives of this strategy, there is need to have a clear roadmap of enablers to consider. These enablers will provide the necessary knowledge, skills, finance and technologies, which will enable the Federal Government of Somalia to make significant improvement on matters related to rangeland management. These enablers include enabling policy and regulatory framework; capacity development and knowledge management; technology and innovation; finance and resource mobilization; and means for measuring results, progress and achievements during implementation.

#### 5.1.1 Enabling Policy and Regulatory Framework

The policy and regulatory framework for Somali in general are in advance stage as several policies related to the environment; land management and water are either approved or pending approvals. These frameworks and their implementation are critical in terms of operationalization of the Rangeland management strategy. Other important strategies include Somali Livestock Sector Development Strategy and Ministry of Agriculture Strategic Plan as well as National Biodiversity Strategy and Action Plan (NBSAP) and the National Development Plan. The key issues across these vital legal regulatory provisions are the need to manage the resources appropriately to achieve sustainable development and alleviate poverty.

At the Federal Government Level as well as Regional states Levels, there is need to facilitate the implementation of the actions proposed by this strategy in order to achieve the overall developmental objectives. The appropriate legislations should consider critical areas of value addition, diversification of livelihoods, product development and marketing as well as research and development. In summary these enabling policy and regulatory framework are:

1. The Government and stakeholders should prioritize, develop and implement the needed regulations to effectively implement the described regulatory provision. This should be a collective effort shared equally by the Federal Government and the regional States. This need to be led by the relevant institutions and government agencies at all governance levels.
2. Regulatory and executive institutions at all governance levels should prioritize enacting, approving and providing for policy actions highlighted in chapter 4 within the stipulated time frame. This should be fronted by the Ministry of Livestock, Forestry and Range.

#### 5.1.2 Capacity Development and Knowledge Management

Capacity development in Somalia is a key issue that needs urgent attention. Therefore, for successful implementation of the Rangeland management Strategy and the action plans requires the establishment of an effective coordination structure at the Ministry of Livestock, Forestry and Range at the Federal government level as well as within the line departments and institutions at the Federal States levels.

There is need to build capacity of district units responsible for rangeland management and related issues. These include; establishing and equipping pastoral field schools and demonstration plots



and units to effectively assimilate alternative livelihoods that would contribute to sustainable resource management. In addition, proper value chain management and product development, processing, branding and marketing strategies are equally critical areas that need to be cascaded top districts and villages' level.

The establishment and operation of district level resource centers is a priority action to enhance sustainable rangeland resource management. This Resource Centre should ideally provide all required information regarding sustainable rangeland management, preferably in the local language. These Resource Centers can be allocated at the District Units responsible for rangeland management and the unit should deliberately encourage the rangeland based-communities to make good use of simple designed information materials. Furthermore, the issues of sustainable rangeland management should be mainstreamed in higher learning institutions as well as other learning curriculums and should include crosscutting issues such as climate change, gender and peace and sustainability in development. In summary these actions are:

1. Establish and operate Rangeland Resource Center to enable target communities to implement the actions of the Rangeland management Strategy and action plan. The Federal State Institutions responsible for Rangeland Management should oversee the actualization of the Centers.
2. Build the capacity of those who are directly tasked with the implementation of the strategy. This is particularly a collective effort, where the non-state actors with a huge wealth of experience can play a vital role, particularly drawing from regions with similar needs.
3. Develop and engagement strategy to be able to categorize various stakeholders and know their communication needs especially rangeland based-communities as well as various gender and generational groups. This should be developed and implemented by the Ministry of Livestock, Forestry and Range.
4. Mainstream sustainable rangeland management issues across various educational curriculum to ensure an appropriate understanding of the issues. This will require the intervention of the Ministry of Education, Culture and Higher Education of Somalia to support and mainstream curricula in support of sustainable rangeland management.

### **5.1.3 Technology and Innovation**

To attain sustainable rangeland management across Somalia, technology and innovation are important elements and a prerequisite for effective assimilation of alternative livelihoods. This Strategy committed to implement actions that require technology and innovation particularly, value chain management and product development, processing, branding and marketing strategies among other activities essential to achieve the overall objective of this strategy. The innovation and technology can play a vital role in fully implementing sustainable alternative livelihoods such as beekeeping, pasture/fodder irrigation and cultivation and storage, feedlots, hides and skins development, payment for ecosystem services (PES), Gums and resins, ecotourism, livestock trade and marketing, as well as cultural events.

The technology and innovation will be more needed once the climate change effect/impact on sustainable rangeland resource management and alternative livelihood is established. Thus, appropriate adaptation and mitigation measures become inevitable. These can include production, distribution and uptake of climate information services to meet the ever-changing climatic conditions and deteriorating rangeland status. The actions required in this regard are:



1. Develop policies and legal framework to enable technology transfer and promote the assimilation of the alternative livelihoods among rangeland based-communities. This should be the responsibility of the federal Government and Federal States Levels both at executive and legislative arms as well as should be in line with existing policies and strategies such as livestock strategy.
2. Identify and promote endogenous innovation, technologies and practices that are directly contributing to sustainable management of rangeland resources. This will be fronted by the Ministry Livestock, Forestry and Range and other line ministries in natural resource management and education/innovation.
3. Enable Meteorology institutions to lead the production, distribution and uptake of appropriate climate information services that would minimize the effect/impact of climate change. This will be directly under the ministry responsible for climate change related issues.

#### **5.1.4 Finance and Resource Mobilization**

The financial resources for strategic rangeland management identified action in chapter 4 are prerequisite for successful implementation. Fully realizing the situation with domestic revenue mobilization, there is need to seek various avenues to avail the required financial resources. These should include domestic, regional and international sources. In summary, the resources mobilization strategy should focus on key actions that include:

1. Use federal level, federal state and district level resources to fund some of the essential activities at their respected levels. The Federal Government should put in place the required finance and resource mobilization framework.
2. Establish and activate Public Private Partnership around areas of value chain management, rangeland base-product development, processing and marketing. The Ministry Livestock, Forestry and Range should take the lead with support of all other line ministries like Ministry of Commerce And Industry, Federal Ministry of Planning, Investment & Economic, Ministry of Interior Federal Affairs And Reconciliation, The Ministry of Finance Somalia, The Ministry of Foreign Affairs & International Cooperation, and Ministry of Agriculture And Irrigation among others.
3. Funding of key activities of this strategy should clearly be included in the nationally determined contribution to climate change adaptation and mitigation, therefore, benefit from the Green Climate Fund (GCF) facilities.
4. Mainstream rangeland strategy action plan across the national and regional development programs and projects to ensure coordination and ability to measure progress and effectively build economic, environment and social resilience.
5. Mobilize resources from regional bodies such as AU, IGAD among others in form of projects and development activities that would see some of the key activities of this strategy implemented.
6. The key activities can also be funded through the UNFCCC various funding mechanism that include Global Environment Facility (GEF), the Special Climate Change Fund, Adaptation Fund, and REDD+ mechanism.



## 5.2 *Delivery and Coordination Mechanisms*

### 5.2.1 ***Institutional Roles and Responsibilities***

The Federal Ministry of Livestock, Forestry and Range (MoLFR) directly manage the Rangeland Management, with the engagement of the federal members state level rangeland management related ministries and institutions. This is further cascaded to the district levels across Federal States. The government institutions will work with a wide range of stakeholders across including non-state actors, development partners, regional and international entities to deliver on their mandate. Furthermore, there are linkages to various public and private research, training, monitoring and implementation bodies, professional associations, and civil society organizations that provide key services, such as education, training, monitoring of weather, water, soil, animal population, production and trade, animal health services, technical advice, and project implementation. The key roles and responsibilities can be summaries as:

1. Ministry of Livestock, Forestry and Range: Overall implementation of the strategy and provision of leadership in terms of prioritization and coordination of resource mobilization.
2. Ministry of Agriculture and Irrigation: To support with water development interventions in the country in support to the strategic action plans with consideration for sustainable development and management of water sources.
3. Ministry of Interior National Security and Ministry Of Interior Federal Affairs And Reconciliation: Support with the planning and implementation of action plans related to security and conflicts mitigations within the rangelands.
4. Ministry of Commerce and Industry: Support with implementation of action plans that seek to commercialize range products in a sustainable way, including value addition and processing innovations and technologies development.
5. The Federal Ministry of Planning, Investment & Economic: The ministry should support with planning for the RMS action plans, including strategies to be implemented within the national Master plans for the country. The prioritized investments should also be factor in the planning and investment by the ministry.
6. Ministry of Humanitarian Affairs & Disaster Management: The ministry should support with adaptation and mitigation strategies within the action plans including community support during disasters.
7. Ministry of Constitutional Affairs: Should support the legislations process with considerations of the need to sustainably manage rangeland resource for Somalia, including recognition of community structures in resource governance.
8. Ministry of Education and Higher: Should support with capacity development, research and extension support on issue of natural resource management and rangeland support to development.
9. The Ministry of Foreign Affairs & International Cooperation: The ministry will seek to work with regional partners and countries within transboundary resource areas for collaboration in sustainable rangeland management, information sharing, resource mobilization, exchange learning among other important engagements.
10. The Ministry of Finance Somalia: Support with financial allocations from the federal state as well as resource mobilization in support to action implementations.
11. Ministry Information, Culture & Tourism; Support with community's cultural recognition, structures recognition, technical knowledge and skill recognition and documentation for



sustainable rangeland management. Should also support tourism efforts for sustainable resource management and revenue generation.

12. Ministry Of Youth And Sports; Support youths engagement in strategy implementation with action plans that are well fit for youth in natural resource management including support to capacity development for future resource managers.
13. Non-state actors: provide capacity building, provide, facilitate the actualization of the alternative livelihoods and adoption rates, monitor and improve the operation through lessons and feedback, share lesson on business models success, resource mobilization and technical support.
14. Somaliland, Ministry of Public works, Land and Housing is responsible for public works, land affairs and housing projects.
15. District level rangeland Units/Departments. The districts level rangeland management unit across the sates will support the implementation of the strategy.
16. Private Sector. All the private sector investors and support services, like contractors, processors, exporters will work with the ministry of livestock, forestry and rangeland in support identif3d value chain interventions.
17. Research Institutions. The national research institution, including the universities in the country will support with the identified research areas to address the strategy intervention areas in support to sustainable rangeland improvement and development.

### **5.2.2 Coordination of the RMSAP Implementation**

To fully implement the Rangeland Management Strategy, there is need for a coordination framework that will allow all stakeholder to work in complementary manners to deliver on key strategic objective and action required. The coordination mechanism will follow the government way of discharging its mandate. This will include working closely with all stakeholder across the government and non-government entities.

### **5.2.3 Monitoring and Evaluation (M&E) of the RMSAP**

The Directorate of Forest and Range under the Ministry Livestock, Forestry and Range is responsible for M&E of Rangeland Management Strategy and Action Plan. The critical indictors are stated in chapter 4 along the strategic activities and roles and responsibilities of various stakeholders. The M & E Unit will set annual targets and track progress and measure achievement periodically. These targets will be part of an M&E system that will ensure activities of these strategy and action plan are in line with national development plan and other relevant strategies and framework. The M&E system should facilitate the following:

1. A single reporting system that allow each implementing units to report on their respective achievement and results.
2. Flexible system that accommodates the various changes and dynamics at all governance levels as well as social and environmental changes.
3. Ability to track the finance and resources used to implement the strategy and allow resource mobilization units to draw effective plans and put appropriate measures to ensure availability of the required resources.
4. A multi-faced system that allows every individual implementing entity to report on their respective achievement and results.



#### **5.2.4 Financial Requirements**

The financial resources required to fully realize the strategy and implement the action plan are approximately be determined jointly by federal government and federal states on an annual basis. In the ten years of implementation the Ministry Livestock, Forestry and Range will submit the required funding to both federal government and federal states based on the adopted annual activities. Other critical activities of the strategy can be directly funded at the implementing institutions and does not necessarily have to pass through the Ministry Livestock, Forestry and Range as outlined in chapter 4.



## GLOSSARY

**Alternative Livelihoods:** This refers to other sources income and means of life to Pastoralists to reduce over reliance on Livestock as the only means of livelihood. In the Rangelands, alternative sources of livelihood include beekeeping, gum Arabica production, handiwork, dryland agriculture and ecotourism.

**Biodiversity:** The total diversity of all organisms and ecosystems at all various spatial scales, or the variety of plant and animal life in a particular range ecosystem or habitat, a high level of which is usually considered to be important and desirable.

**Carbon sequestration:** the process of removing carbon from the atmosphere and depositing it in

**Carrying Capacity:** The carrying capacity of an ecosystem is the size of the population that can be supported indefinitely upon the available resources and services of that ecosystem.

**Climate change:** Change in the state of climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to persistent anthropogenic changes in the composition of the atmosphere or in land use.

**Disaster Risk Management:** the systematic processes of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and possibility of disaster.

**Disaster Risk Reduction:** the concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and environment and improved preparedness for adverse occurrences.

**Disaster:** A serious disruption in the normal functioning of a community, society or livestock involving widespread human, material, economic or environmental losses and impacts which exceeds the ability of the affected community or society to cope using its own resources.

**Drought:** The phenomenon that exists when precipitation is significantly below normal recorded levels, causing serious hydrological imbalances that often adversely affect land resources and production systems. In Range areas, this is manifested by both human and livestock deaths arising from prolonged lack of forage, water and food.

**Ecosystem Services:** Ecological functions or processes that have that have monetary or non-monetary value to individual, community or society at large, e.g. cultural services such as tourism, or spiritual and aesthetic appreciation.

**Ecosystem:** The interactive system formed from all living organisms and their physical and chemical environment within a particular area.

**Nomadic Pastoralism:** Is a form of pastoralism where livestock are herded in order to find fresh pastures on which to graze. Nomadic Pastoralists follow an irregular pattern of movement.

**Pastoralism refers to both an economic activity and a cultural identity.** As an economic activity, pastoralism is an animal production system which takes advantage of the characteristic instability of rangeland environments through strategic mobility, where key resources such as pastures, nutrients and water for livestock becomes available in short-lived and largely unpredictable concentrations. Crucial aspects of pastoralism specializations are; the interaction of people animals and the environment, particularly mobility of livestock



while grazing/browsing and watering at intervals; and the development of flexible resource management systems, particularly communal land management and non-exclusive entitle

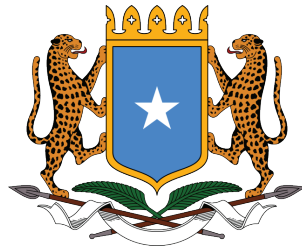
**Range management is the science and art of ensuring the sustainable use of range resources.** It relies on ecological principles in dealing with the use of rangelands and range resources for a variety of purposes. These purposes include use as grazing for livestock, as wildlife habitat, watersheds, recreation and other associated uses. Rangelands are managed principally with extensive practices such as managed livestock grazing and nomadic pastoralism rather than more intensive agricultural practices of seeding, irrigation, and the use of fertilizers

**Rangelands are vast natural landscapes in the form of grasslands, bushland, woodlands, wetlands and deserts.** They grow primarily indigenous vegetation, rather than plants established by humans. Rangelands comprise about 90% of all the lands in Somalia.

**Tropical Livestock Units (TLU):** Tropical Livestock Units are livestock numbers converted to a common unit. It is based on a weight of 250 kgs.

**Conversion factors are:** cattle = 0.7, sheep = 0.1, goats = 0.1, pigs = 0.2, chicken = 0.01.





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