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FAO'S PIVOTAL ROLE IN NATURAL RESOURCE MANAGEMENT IN EASTERN AFRICA

Geographically, the Eastern African subregion is characterized by the Great Rift Valley with its vast savannahs, deserts, dry grasslands, large lakes and mountainous areas. The subregion is endowed with a wealth of natural resources, which include the Nile River and its tributaries, several freshwater lakes and long coastal areas with marine resources. The Nile, the world's longest river, flows through ten countries, eight of which belong to the Eastern African subregion. Lake Victoria to the south of the subregion, is the second biggest freshwater lake in the world and the biggest in Africa.

The FAO Eastern African subregion comprises eight countries: Burundi, Djibouti, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, and Uganda. Combined, the countries in the subregion cover an approximate land area of 3.2 million square kilometres (320 million hectares). Agricultural land totals 81 million hectares, covering almost 48 percent of the subregion's total land area. The importance of land for agriculture in the subregion is underlined by the fact that approximately 60 percent of the population derives their food and livelihoods mainly from smallholder farming, livestock production and related activities.

One of the challenges facing development in Eastern Africa is related to the rapid rate at which natural resources are degraded through a complex combination of factors. Such degradation reduces the natural resources both quantitatively and qualitatively, thereby compromising development activities based on these resources. The increasing population in Eastern African countries has had a direct impact on access to natural resources, tenure and use, constituting the greatest threats to the sustainable management of natural resources in the subregion. Notwithstanding the abundance of water, rainwater harvesting and other climate smart practices are rarely practiced nor given due attention.

The Eastern African subregion's population of over 23 million people are facing food insecurity (FSNWG May 2017 report) and rank as the most food insecure among the vulnerable in Africa. Furthermore, the traditional livelihoods of pastoralists and agropastoralist which dominate the subregion, have provided a natural adaptive approach to climate change for decades and have been marginalized for

a long time, hence facing a multitude of challenges such as diseases, invasive species, sedentary farming, pasturelands competing with other land uses, migration and conflicts.

Many studies have indicated serious environmental problems in Eastern Africa, which include: degradation of forest trees and rangelands, the loss of biodiversity, land degradation, overfishing and coastal degradation, desertification, climate change, water scarcity and illegal hunting. These problems underline the importance of effective management of natural resources. Livelihoods in the subregion are dependent on sustainable access to natural resources, particularly water, trees and land. The multiple problems demand quick policy and strategic actions. The challenge, therefore, is not only to halt and reverse this catastrophic trend, but also to develop sustainable environmental management practices to reinforce poverty reduction and economic growth.

Natural resources should be used in a way that sustains and improves their capacity for productive use, and avoids degradation and over-exploitation. In addition, the subregion is particularly vulnerable to climate variability and both droughts and floods are recurrent phenomena. The agriculture sector is very sensitive to climate change and should therefore change to adapt to changing conditions to maintain or improve production in the face of a changing climate by using available natural resources.

Climate change predictions for the subregion indicate that the situation will get worse, with overall warming and more frequent extreme events. This will impact all natural resources and the systems that support food production.

It is imperative that the innovative ways to management of natural resources and dissemination of information are improved to reduce vulnerability and increase the resilience and adaptive capacity of people and ecosystems in Eastern Africa. One option that could support the management of natural resources is to increase investment in research and understanding of the issues affecting livelihoods in the subregion, and to commit resources to implement priorities which have been identified with various subregional bodies and institutions such as IGAD, the East Africa Community and countries.

FAO's work on the sustainable management and utilization of natural resources in Eastern Africa, including land, water, forest, climate and genetic resources, is set to benefit present and future generations. This work is essential for improving the livelihoods and resilience of communities. This work in Natural Resources Management (NRM) is relevant to several dimensions of sustainable development, such as the governance and management of food production systems, provision of essential ecosystem services, food security, human health, biodiversity conservation, and the mitigation of, and adaptation to, climate change.

The FAO Subregional Office for Eastern Africa (SFE) is currently promoting the following NRM activities in the subregion, which are also in line with intergovernmental priorities intervention areas:

1. Sustainable access to, and utilization of, natural resources by pastoralists and farmers

- Promote the sustainable development and management of natural resources by developing policy, legal and regulatory frameworks and building capacity in key NRM institutions at regional and national levels;
- Support in developing national and subregional information systems by mapping of land-use planning, grazing suitability, livestock migratory routes and zoning to inform resource planners and help to mitigate resource conflicts;
- Carry out an assessment of access to water in pastoral areas and the impact of planned water resource initiatives;
- Provide information to policy-makers for negotiating land tenure, water access rights and regulation, agreements for transhumance pastoralists and sustainable land and resources utilization agreements;
- Promote good practices in rangeland management (e.g. reduce land wasted by the spread of invasive species such as *Prosopis* species, re-seeding and others).

2. Sustainable management and utilization of forests, trees and wildlife resources

- Strengthen capacity for community-based forest management;
- Support the review and harmonization of sector plans, policies, legal and regulatory frameworks;
- Support rehabilitation of degraded areas and training for landowners (e.g. restoration activities such as afforestation, reforestation and agroforestry, and others);

- Carry out forest resource assessment and profiling of the sectors' contribution to national economies and people's livelihoods;
- Promote sustainable forest management (SFM) through awareness-raising and information-sharing and organize education programmes;
- Promote payments for environmental services to enhance the resource base, and augment and diversify income for rural populations in support of SFM.

3. Promoting sustainable land and water management (SLM)

- Provide technical advice on the management and restoration of degraded lands;
- Promote agricultural water productivity and efficiency through policy advisory services, up-scaling of technologies and knowledge transfer with regard to good practices (e.g. solar pumping, drip irrigation, rainwater harvesting);
- Promote small-scale irrigation for better utilization of available water resources;
- Promote tools, instruments and good practices for SLM for increased agricultural productivity;
- Promote land tenure and water access rights and regulations, as well as sustainable land and resources utilization agreements, e.g. FAO's Voluntary Guidelines for Governance of Tenure for Land, Fisheries and Forests; Framework and Guidelines on Land Policy in Africa;
- Support the mainstreaming of ecosystem-based adaptation, landscape and watershed approaches into food and agriculture programmes through capacity building, awareness-raising and dissemination of good practices.



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4. Environment protection and adaptation to climate change

- Provide support to strengthen the relevant national and subregional institutions to enable them to respond to climate change in agriculture and related sectors;
- Promote good practices in the integration of agroforestry and fast-growing multipurpose tree species adaptable and resilient to dryland landscapes;
- Support regional and subregional climate change and dryland initiatives such as the Great Green Wall Initiative for the Sahara and the Sahel (GGWSSI), Reduced Emissions from Deforestation and Forest Degradation (REDD+), Forest Landscape Restoration;
- Raise awareness of the synergies between land and water management, climate change adaptation and mitigation, and agricultural production and productivity;
- Promote the adoption and up-scaling of Climate Smart Agriculture (CSA) through awareness-raising, capacity building, strengthening institutions' coordination and documenting and sharing of good practices.

Key partners

- African Union (AU);
- Intergovernmental Authority on Development (IGAD);
- Consultative Group on International Agricultural Research (CGIAR): International Water Management Institute (IWMI), Center for International Forest Research (CIFOR), World Agroforestry Centre (ICRAF), International Center for Agricultural Research in the Dry Areas (ICARDA) and others;
- East African Community (EAC);
- Common Market for Eastern and Southern Africa (COMESA);
- United Nations Economic Commission for Africa (UNECA);
- World Meteorological Organization (WMO);
- Financing institutions (World Bank and Africa Development Bank);
- UN REDD Programme Partners (UNDP and UNEP);
- Bilateral and multilateral donors, including the Swiss Agency for Development and Cooperation (SDC), the European Union, Italian Development Cooperation, Global Environment Facility (GEF), Norwegian Agency for Development Cooperation (NORAD), Adaptation Fund;
- Civil society organizations, professional associations and NGOs including: East Africa Farmers Federation, African Conservation Tillage Network and African Forest Forum.

Interventions supported by FAO in the subregion

The FAO Subregional Office for Eastern Africa (SFE) has been supporting member states in implementing the Climate Smart Agriculture (CSA) programme. This initiative supports rural communities to recover from the shocks of climate change and natural disasters. CSA helps farmers to grow more food on the same amount of land, growing food in sustainable ways by using less water and fewer other inputs, which means



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that the farmers earn more income. CSA moreover prepares farmers and land to adapt to disasters like droughts, floods and other climatic shocks.

While practicing CSA, farmers are 1) taught to use seeds that are more resistant to drought and disease; 2) supported in the selection of livestock breeds that are more resilient to hotter temperatures; and 3) taught to plant trees that are heat- and drought-tolerant and many other benefits. SFE conducted CSA scoping studies in a number of countries to document the status of existing practices, technologies and available options.

In addition, SFE supported a number of countries to develop their national CSA programmes and strategies. These frameworks provide a variety of CSA practices, technologies and opportunities for mainstreaming into national agriculture investment strategies and plans.

Some countries in the region have put great effort into Sustainable Land Management (SLM), with varying results in terms of adoption, up-scaling, outcomes and impacts. Through FAO, Djibouti, Ethiopia and Sudan were supported to develop their GGWSSI national strategies and action plans. These countries all have national SLM coordination structures. They have identified areas for prioritization of SLM activities, and mainstreamed issues of land degradation and restoration into their policy development that has enabled ground-level SLM implementation. Countries in the subregion also received support in the development of SLM investment frameworks, which have assisted governments to identify their priorities and work with the resource partners to have these priorities met.

SFE also supported the countries of the subregion in the transfer of knowledge and sharing of information on sustainable management, policy and legal reviews on land and water management, climate change, forestry, range and other NRM areas.

Furthermore, SFE provided support in the documentation of good practices on integrated watershed management, water scarcity, participatory forestry and range management, water-harvesting techniques, natural resource management and adaptation plans and strategies at community and watershed levels.

Natural Resource Management and the Sustainable Development Goals (SDGs)

There is consensus that natural resources, especially those of land, soil, water, forest, plant and animal diversity, vegetation, renewable energy sources, climate change and ecosystems services are fundamental for improving livelihoods and achieving sustainable development.

On 25 September 2015, the 193 Member States of the United Nations adopted the Sustainable Development Goals (SDGs), a set of 17 aspirational objectives with 169 targets expected to guide actions of governments, international agencies, civil society and other institutions over the next 15 years (2016-2030). Succeeding the Millennium Development Goals (MDGs), the ambitious 2030 Agenda is a global vision for people, for the planet and for long-term prosperity. It charts a plan for the future – shifting the world onto a sustainable and resilient course and leading to transformation in standards of living and to a transition to more inclusive, dynamic and sustainable pathways to development. The 17 SDGs aim at ending poverty and hunger while restoring and sustainably managing natural resources. They integrate the three dimensions of sustainable development (economic, social and environmental) with closely interwoven targets. The SDGs are indivisible – no one goal is separate from the others, and all call for comprehensive and participatory approaches. They are universal – the 2030 Agenda is as relevant to developed nations as it is to developing nations. It is important to

understand and improve our knowledge in order to address the complex linkages between NRM and development and address the goals of sustainable development.

The 2030 Agenda recognizes that we can no longer look at food, livelihoods and the management of natural resources separately. A focus on rural development and investment in agriculture (crops, livestock, forestry, fisheries and aquaculture) are powerful tools to end poverty and hunger and bring about sustainable development. Agriculture has a major role to play in combating climate change.

Tackling climate change and improving natural resources management are some of the major crosscutting themes of the sustainable development goals. With its expertise and resources, FAO is well positioned to support countries in achieving the Sustainable Development Goals, many of which are related to FAO's work. We cannot afford to miss the opportunity of becoming the Generation Zero Hunger. In the Eastern African subregion, SFE supports the implementation of a transformative 2030 Agenda for Sustainable Development that will see people interact harmoniously with the planet's ecosystems and benefit from their services, maintaining and sustainably using biodiversity and all natural resources for present and future generations.

The FAO Subregional Office for Eastern Africa (SFE)

The FAO Subregional Office for Eastern Africa is a technical hub which supports eight countries in Eastern Africa and has a core team of professionals with multi-disciplinary expertise. SFE is responsible for developing, promoting, overseeing and implementing agreed strategies for addressing subregional food security, nutrition, agriculture, natural resources and rural development priorities.

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