Animal Genetic Resources in the IGAD Region: Regional Policy Brief on Policy and Legal Issues

State of Adoption of the Global Plan of Action

It is over ten years since the Global Plan of Action (GPA) and the Interlaken Declaration were formulated. So far, some IGAD member states have adopted it into a National Plan of Action (NPA) and succeeded in implementing the program requirements.

The adoption and implementation of the action plan has a significant impact on the conservation, sustainable utilization and access to the genetic resources and equitable sharing of benefits arising from their use including the associated knowledge. In the foreseeable future, access to financial and technical support from regional and international sources for conservation and development of their animal genetic resources by member states would most likely depend on the adoption of the GPA and the introduction of tailored NPAs.
Introduction

The Intergovernmental Authority on Development (IGAD) is a regional economic community in the horn of Africa. Its member state comprises Uganda, Sudan, South Sudan, Somalia, Kenya, Ethiopia, Eritrea and Djibouti stretching over an area of 5.2 million km².

IGAD has three priority areas of focus namely a) food security and environmental protection; (b) economic cooperation, regional integration and social development; and (c) peace, security and humanitarian affairs.

The region has about 6910 km of international borders and a well endowed variety of climates, landscapes, and swamp areas. What's more, the area possesses diverse ecosystems and agro-ecological zones at different altitudes that range from 150 meters below sea level (Dalul) to about 4600 meters above sea level (Mount Kenya) (IGAD, 2016).

The region has also been a gateway into Africa of a large number of domesticated animals and a centre of origin and/or diversity for a sizeable number of crop species and domesticated animals. Because of its agro-ecological and climatic settings and by virtue of its location, the region is rich in highly adapted indigenous plant and animal genetic resources.

The animal genetic resources are albeit to varying magnitude, important components of the livelihood of farmers and pastoralists across all member states. The region has about 532 million heads of livestock of which 360 are ruminants. However, the animal genetic resources are threatened by a number of factors hence the need to reverse these threats and ensure the conservation and sustainable utilization of the resources.

This policy brief advocates for the adoption by IGAD member states of the Model Policy and Legal Frameworks. The model's policy contents are aligned with international and regional provisions relevant to the region and intend to promote the conservation, sustainable use and access to Animal Genetics resources (AnGR) and the equitable sharing of benefits arising from their use.

The Policy Brief also elucidates to IGAD member states the urgency to address problems associated with the existing threats posed to animal genetic resources and the need for adopting important policy measures outlined in the main document hence serving as impetus for initiating rigorous reforms and actions.

Status and Opportunities of Animal Genetic Resources in the Region

IGAD member states are endowed with diverse climates, landscapes, agro-ecological zones and cultures. The region has also served as gateway into Africa of a large number of domesticated animals from their geographic areas of domestication. These have led to the evolvement of diverse indigenous farm animal genetic resources which are highly adapted to local environmental conditions and to the type of management practiced by farmers and pastoralists in the region. The diversity is a major contributing factor in the development of breeds that fit the various production environment.

The indigenous Animal Genetic Resources (AnGR) in the IGAD region are as a result of breeding management and husbandry practices of generations of livestock keepers involving farmers, agro-pastoralists and pastoralists. In addition to the development of the various breeds of indigenous AnGR, livestock keepers have accumulated a wealth of native knowledge that is relevant to the management of the resources.

The homegrown animal resources are a reservoir of important genetic diversity that will be of use at present and in the future. Their merits include;

- Adaptation to extreme climatic conditions,
- Resistance/tolerance to disease, and
- Product qualities fitting new consumer demands (e.g. leaner meat).

These unique characteristics of indigenous livestock breeds are beginning to be appreciated widely.

In a number of IGAD member states, there are sizeable public investments in developing infrastructures and skilled human resource that can contribute to the promotion of genetic improvement of indigenous farm animal genetic resources. The presence of significant level of evidence against the blanket use of exotic breeds for genetic improvement allows member states to redirect their focus on improvement of the indigenous breeds.

Key Gaps and Challenges

Some of the serious threats to the region's agricultural growth and biodiversity in general and to indigenous animal genetic resources in particular include:

- The vulnerability of the region to dry spells and recurrent droughts
- The presence of conflicts
- Land and environmental degradation.

Moreover, livestock development in the region is mainly focused on introduction of exotic livestock breeds. This contributes to the dilution of the well adapted indigenous breeds and causes genetic erosion. In view of this, there is a critical need for establishment of appropriate policy provisions and legal frameworks to realize conservation of the genetic resources, their sustainable utilization and equitable sharing of the benefit arising from access to these resources.

Despite the growing appreciation to the unique characteristics of indigenous livestock breeds, there are gaps in the policy and legal frameworks of IGAD member states to recognize the contribution of livestock keepers
in developing these exclusive qualities. Of importance is also ownership of the genetic resources and associated indigenous knowledge as well as to extend protection against bio-piracy and unwarranted uses of the resources and the indigenous knowledge by others.

Growth in production and productivity of AnGR of the IGAD region can make sizeable contribution towards improved livelihood of livestock keepers and national economies of the member states. These resources are predominantly of indigenous origin - especially in Arid and Semi-Arid Areas (ASAL) where they are well adapted to environmental (management and climatic) conditions of the existing production systems, unlike exotic breeds and their crosses.

However, conservation and improvement of animal genetic resources for higher production and productivity have not received the required attention. Lack of appropriate breeding policies and inadequate implementation of those which exist, limit sustainable genetic improvement programs.

Efforts have been exerted at the international level to ensure the realization of the three pillars of the Convention on Biological Diversity (CBD) (i.e., conservation, sustainable utilization and access and benefit sharing) as pertains to animal genetic resources. Towards this end, two global reports on the State of the World's Animal Genetic Resources have been developed along with a Global Plan of Action for AnGR. The Nagoya Protocol on Access and Benefit Sharing and the Cartagena Protocol on Biosafety also have relevance to AnGR. Despite the significant contribution, the adoption of the regional and international provisions into national policies and legal frameworks has not been taken up and progressed as expected, to achieve the ideals of the CBD.

The African Union – Inter-African Bureau for Animal Resources (AU-IBAR), in collaboration with IGAD are working on an initiative to address issues related to policy and legal aspects of AnGR within the IGAD-MS Appropriate policies and legal provisions pertaining to the conservation, sustainable use and access and benefit sharing of animal genetic resources are important. They guide actions at national and regional levels and ensure the effective adoption and implementation of global action plans, including their alignment with regional and global movements on the subject.

Based on findings of a situation analysis conducted, the following policy objectives and recommendations have been identified as a basis for formulating broader directions and adopting legal frameworks.

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**Policy Objectives**

1. Ensure conservation of indigenous farm animal genetic resources and significantly improve their contribution to the livelihood of livestock keepers and the national economy.

2. Ensure national actions and multi-national collaboration between countries in the conservation and use of trans boundary indigenous farm animal genetic resources.

3. Develop mechanisms for conservation and development of animal genetic resources in cooperation with the global community and put measures (e.g. incentives) that ensure sustainability.

4. Ensure mainstreaming of conservation, sustainable use and access and equitable sharing of benefits from animal genetic resources in various sectors; and

5. Ensure that global commitments are met and agreements kept in the implementation of indigenous farm animal genetic resources conservation, sustainable use and access and equitable sharing of benefits.

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**Proposed Policy Recommendations**

- The existing broader provisions (e.g. the constitution of member states) should be supplemented with legal and policy frameworks that specifically address animal genetic resources and IGAD-MS should consider adopting the Model Policy and Legal Framework.

- The Global Plan of Action for Animal Genetic Resources is well detailed and internationally agreed plan for the management of animal genetic resources. There is a critical need for adoption of this plan by IGAD-MS through the development of national plans of action.

- The implementation of enacted policy and legal provisions through proper regulation and institutionalization is important if the objectives of conservation and sustainable utilization of farm animal genetic resources is to be realized.

- With advances in biotechnology, IGAD member states should harness new technologies to realize conservation and sustainable use objectives in relation to animal genetic resources. However, biosafety is an important issue in this regard and need to be taken care of through proper policy and legal frameworks.

- The provisions for conservation and sustainable utilization should be supplemented by policy and legal frameworks that address access to the animal genetic resources and the associated indigenous knowledge, and sharing of benefits that accrue from their use. Such frameworks ought to be aligned with regional and international provisions and need to be harmonized with similar frameworks of neighboring countries to address issues of trans-boundary breeds.
conservation, sustainable utilization and access and benefit sharing of animal genetic resources (AnGR) and the equitable ownership of the genetic resources and associated benefits arising from access to these resources.

The region has also served as a gateway into Africa of a large variety of indigenous breeds. Despite the significant contribution, the adoption of AnGR has not progressed as expected, to achieve the ideals of the CBD. The effective adoption and implementation of global actions plans, including their alignment with regional and national provisions relevant to the region and international agreements, is important. They contribute to the conservation, sustainable use and access and reverse these threats and ensure the conservation and sustainable utilization of the resources.

Key Gaps and Challenges

- The vulnerability of the region to dry spells and recurrent droughts.
- The presence of conflicts and land and environmental degradation.
- The presence of exotic breeds, which contribute to the dilution of the well-adapted and local varieties.
- The need to redirect their focus on improvement of the indigenous breeds.
- The need to promote the conservation, sustainable use and access and benefit sharing of AnGR.

Introduction

The African Union – Interafrican Bureau for Animal Resources (AUIBAR) is working on an initiative to address issues related to policy directions and adopting legal frameworks. Based on findings of a situation analysis conducted, the following policy objectives and recommendations have been identified as a basis for formulating broader strategies.

- To develop and adopt policies and legal frameworks has not been taken up and progressed as expected, to achieve the ideals of the CBD.
- To promote the conservation, sustainable use and access and regional provisions relevant to the region and international agreements, is important. They contribute to the conservation, sustainable use and access and benefit sharing of AnGR.

The region has about 6910 km of international borders and a well-endowed variety of climates, landscapes, and altitudes that range from 150 meters below sea level (e.g. in the Gulf of Aden) to about 4600 meters above sea level (Mount Kenya) (IGAD, 2016).

The IGAD region can make sizeable contribution towards growth in production and productivity of AnGR of the region. T he diversity is a major contributing factor in husbandry practices of generations of livestock keepers and the effective adoption and implementation of global action plans, including their alignment with regional and national provisions relevant to the region and international agreements, is important. They contribute to the conservation, sustainable use and access and benefit sharing of AnGR.