



PROMOTION OF TRADITIONAL KNOWLEDGE TO ACHIEVE SOCIO-ECONOMIC AND ENVIRONMENTALLY-SUSTAINABLE GAINS IN THE MANAGEMENT OF ANIMAL GENETIC RESOURCES

KEY MESSAGE

- *Recognizing, enhancing and promoting the use of knowledge, practices and innovations of indigenous and local communities is a way to ensure human wellbeing and food security through the maintenance of ecosystem functions and integrity.*

INTRODUCTION

Indigenous peoples and local communities (IPLC) in Africa are considered the original custodians of their AnGR. Their traditional knowledge (TK) on AnGR includes the recognition of these animals and their unique traits, description of the characteristics of their breeds, evaluation of their attributes, firsthand information of their management styles and regimes, and how these interact in the wider production systems and their components, including ethno-veterinary use as part of animal health practices. Their TK and practices play important roles in the conservation and sustainable use of these AnGR. Many communities are facing increasing threats to their resource rights, due to the spread of western-driven intellectual property rights (IPRs), often through 'Free Trade Agreements'. Communities usually do not receive fair benefits from the use of their resources. As it is the case in many countries, major challenges prevent access and benefit sharing (ABS) from adding up to social justice. IPRs are often granted too easily conferring rights over the communities AnGR to others and do not require consent or benefit-sharing when these resources are used. It is widely speculated that one of the reasons why the TK on AnGR is not in the mainstream agenda of the agricultural and rural development is that this extensive and complex knowledge system has not been adequately characterized and documented. As a consequence, the basis for developing strategies for AnGR and their continued maintenance and sustainable exploitation (e.g. niche markets) in ways that accommodate the lifestyles, aspirations and livelihoods of the keepers, is often considered weak. Even where some AnGR TK has been preserved, they are scattered in different community institutions and in different formats, making their access cumbersome. So far, the loss of TK from AnGR has denied farmers' livelihoods, innovation, technology development, industrialization, commercialization and food security. The question remains as to what are the factors that are impeding the national plans and aspirations to preserving, protecting, maintaining and promoting TK that are associated with AnGR.

POLICY RELATED ISSUES

Issues raised that may have policy underpinnings, concerning animal genetic resources (AnGR), TK and the integration of TK into national legislation and policies, are:

- TK about animal breeds and breeding is the key resource that indigenous people and communities use to manipulate the genetic composition and management of their

livestock. It includes knowledge and experience about the genetic attributes of livestock and inheritance, as well as conscious strategies and social mechanisms that influence the gene pool. Numerous critics have asserted that the imposition of Western values and their biases have contributed to the destruction of indigenous communities' means of subsistence, social relations, and cultural traditions. Cultural heterogeneity is believed to be one of the causes of disintegration of traditional institutions and knowledge. Older people have a wealth of knowledge and experience, which the young may not be interested in learning. Modern generations uphold the Western culture and hence look down upon local and indigenous knowledge systems. This results in loss and distortion of traditional information concerning AnGR, especially since many farmers and breeders possessing this information are elderly and lack successors; as they die, their knowledge dies with them. Such negative enforcement from communities strongly promotes the disintegration of indigenous TK.

- Whereas communities hold a lot of TK, much of this information is transmitted through oral traditions. Consequently, most of the communities have inadequate capacities to collate and document their TK. It is thought that only by addressing the capacity needs and priorities of indigenous peoples and local communities and other stakeholders in the AnGR domain would the current situation change. Capacity building would encourage their participation in all matters pertaining to AnGR management, including the re-construction and documentation of TK related to AnGR. Other benefits anticipated from relevant capacity building among communities are increased awareness and knowledge that would enable them contribute to processes that lead to the development of community protocols, and the formulation of legal and policy relevant for AnGR.
- In response to general concerns that indigenous peoples and communities are not being rewarded for the agricultural resources they own and manage, and that get transferred to the developed world, some discussions and negotiations have occurred in global forums lately and have resulted in a number of international policy and legal processes. The most notable of those processes being the adoption of the FAO International Treaty on Plant Genetic Resources for Food and Agriculture, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits, as well as negotiations by the Intergovernmental Committee of the World Intellectual Property Organisation (WIPO) on Intellectual Property and Genetic Resources, and TK and Folklore to develop an international legal regime for the protection of TK. Furthermore, national and regional post-CBD policy agendas have also been stimulated, thereby producing a range of proposals, projects, laws and instruments related to ABS and the protection of TK. Alongside these advances a number of tools and alternatives to safeguard the interests of local communities, in relation to biodiversity conservation and the maintenance of their traditional lifestyles, including ABS and TK have been proposed. Unfortunately most of these processes make no specific reference to AnGR,

presumably because they are to be included in the wider ABS system based on the Nagoya Protocol.

- In instances where TK spread across several communities within a country or particular AnGR of transboundary breeds exist in two neighbouring countries with same or similar associated TK, difficulties may arise in deciding which of the communities should be approached for prior informed consent as stipulated under some of the international processes, such as the Access and Benefit Sharing scheme. Similarly, difficulties may arise in deciding which community should be engaged in the negotiations for benefit-sharing. These possible scenarios call for the adaptation of some of the provisions of the internationally agreed frameworks to country or local conditions.
- Although well intended, the established centralized animal breeding schemes employed in the past in Africa failed to sustainably provide the desired genetic improvements. One of the reasons for inadequate progress is believed to be the failure to engage the participation of the end-users in the process. Alternative breeding approaches that involve the participation of livestock owners and their communities have been recommended and are being used in several countries in Africa. Community-based breeding programmes are distinct in a few important ways. Farmers in these programmes help determine which genetic traits to select for and are trained to incorporate these traits into their breeding practices. Farmers also pool their herds with those of other farmers in their communities to create a bigger and more diverse gene pool, and they receive support to set up local recording systems to monitor the performance of their animals over time and continuously improve their resilience to threats like heat and diseases. Farmers in a community work out agreements on the use and exchange of sires (male animal parents used for breeding), a critical component that has historically been missing from other breeding program models initiated. This participatory approach builds both capacity and buy-in among local farmers, who are less likely to return to familiar, traditional breeding practices when the programs end because they have ownership in the process of improving herd management and creating reliable record-keeping systems. The knowledge and experiences gained by communities become part of their knowledge systems and in some ways could enrich and reinforce their TK systems. The opportunities offered by record keeping on data and management practices could be exploited in the documentation of TK in the area.

LESSONS LEARNT ON TK IN AnGR MANAGEMENT IN AFRICA

Some data and information gleaned from the 2016 State of African AnGR pertaining to legislation, policy and governance AnGR and related to indigenous or TK gave insights into the state of affairs in some countries, as summarized in the paragraphs below:

National/regional frameworks that promote TK

There were some policy objectives that were found to be common in existing national and regional laws, namely control over TK by indigenous/local communities and protection against misappropriation by third parties outside the context of the community from which the TK originates, and equitable sharing of benefits that arise from the use of the TK. The ARIPO Swakopmund Protocol was found to be an example that has the policy objectives to preserve and conserve TK. The Indigenous Knowledge Systems Bill 2016 in South Africa has the objectives to protect the indigenous knowledge of indigenous communities from unauthorized use and misappropriation. The TK Act of 2016 in Kenya mainly seeks to protect and enhance intellectual property in and indigenous knowledge of biodiversity and genetic resources, ensure that communities receive compensation or royalties for use of their TK.

Cases of no specific national TK frameworks

Safeguarding or protecting the interests of ILCs over their knowledge and practices was often one of the objectives of ABS legislation. In some legislation, such as in Kenya, none or very few provisions clearly determined how benefits are to be distributed to ILCs. In some of the countries, specific legislation exists to guarantee the rights of indigenous peoples over their TK or genetic resources, in addition to broader ABS measures. Specific recognition of customary law or community protocols was provided indirectly in some ABS systems, but there was a lack of detailed guidance on these issues.

Cases of absence of recognition and mainstreaming of AnGR and TK into national policies and decision making processes

It was acknowledged in some countries that AnGR and TK were not recognized in many of their national policy and legal frameworks. However, the data revealed that the majority of the rural communities rely heavily AnGR and on TK, innovations and practices for their day to day activities, in particular agriculture.

SETTING THE POLICY AGENDA

The agenda setting for policy discussions, formulation and communication of the eventual policies should include:

Promote the utilization of TK associated with AnGR for economic benefits

Promoting TK offer locally available, simple, and effective solutions for addressing AnGR breeding and conservation challenges. TK have been shown to be more common in solving AnGR breeding problems at community level. They are more appropriate for recognition and evaluation of livestock characteristics and breeds; the management of animals and how these interact in the production system. Promoting the utilization of TK associated with AnGR can capacitate farmers and breeders and enhance their participation in

implementation of AnGR improvement programmes.

Create community institutional linkages

At national and regional level, different communities have considerable TK, innovations and practices that are neither documented nor packaged in a manner to be shared. Yet, there are no community institutional frameworks for exchange of information. This problem is compounded by the lack of national or regional legal mechanisms to facilitate such exchanges and sharing of information to protect against illicit and unwanted expropriation, while ensuring equitable sharing of benefits. Creating or strengthening weak community institutional linkages could facilitate documentation of existing TK and knowledge accruing from AnGR projects.

Encourage Bio-cultural Community Protocols: A Bio-cultural Community Protocol, which can be developed by one or more communities, asserts their rights under domestic and international laws related to their identity, land and customary laws and practices. It also illustrates their biological, cultural and spiritual resources and values that contribute to the conservation and sustainable use of biodiversity. A Bio-cultural Community Protocol is essentially a statement of community intentions to self-determine its future and clarifies how it wants to engage with specific stakeholders. In doing so, communities help enable government agencies or conservation agencies, for example, to work collaboratively towards the community's goals and priorities.

Encourage the development, and maintain a sui generis (one of a kind) system for TK

A practical approach to a sui generis system for AnGR might involve regulations recognizing breed associations, geographical indications or livestock keepers'/breeders' rights.

POLICY OPTIONS AND RECOMMENDATIONS

Policy options to resolve some of the issues identified to be contributing to the slowing down of the process of integration of TK into national policies and legislation in African countries include:

- Policy and decision makers at government levels have failed to connect AnGR management and TK. A more forceful campaign by field workers and researchers should be directed to policy makers and government agencies to the effect that TK and AnGR are fundamentally interrelated and inter-dependent. Policy makers should be made aware that at the community level, TK and AnGR are used, conserved and exchanged together.
- Awareness should be raised on the importance of AnGR, and TK associated with AnGR, and their obvious contributions to national goals of achieving food and nutrition security,

as well as the maintenance of environmental sustainability. The links among AnGR, TK and access and benefit sharing schemes should be emphasized in the campaigns.

- It is necessary to encourage communities to go beyond meeting their immediate needs from their ownership of their AnGR and associated TK to generate surpluses for the wider society.
- Government policies that create incentives for communities to formulate, implement and monitor initiatives to improve their livelihoods based on the sustainable use of their environment and natural resources should be called for and directed at policy makers and legislative bodies. A successful campaign to establish friendly policy environments would most likely result in increased impetus for farmers to invest and draw more on TK and apply new knowledge more in their agriculture and livestock practices.
- Given the broad areas in agriculture, livestock farming, community resources and environmental management in which community and individual TK are applied, policy frameworks developed by policy makers should be such as to confer comprehensive protection on TK. The policy frameworks may need to reflect distinct policy objectives in specific sectors, and may need to be integrated with different sectoral regulatory systems at the national level. The principle of horizontal flexibility would recognize that TK protection has to be coordinated and be consistent with policy objectives and regulatory mechanisms in related areas, and may therefore differentiate between different sectors. Such coordination of policy approaches potentially would include: a) the exchange of information between countries and other stakeholders (representatives of indigenous and local communities) on domestic consultative and policy development practices, reflecting the particular concerns of traditional, local and indigenous communities; b) the support for networks of TK holders in different countries; c) the development of information and capacity building materials for the use of TK holders and; d) the pooling of experience in supporting the use of TK as the basis for community development, community based enterprises and appropriate commercial partnerships.
- Governments should make deliberate efforts to develop well-considered legislative frameworks and/or complementary arrangements to protect TK. These frameworks should recognize the collective nature of local innovation, promote its documentation, development and application, and encourage individual innovation within this community framework, and shield AnGR and TK from privatization. The relevant agencies of governments of African countries should dialogue with each other with the aim to get the legislative bodies enact laws that are in tune with international agreements the countries subscribe to.

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African Union – Inter-African Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park, Museum Hill, Westlands Road
PO Box 30786-00100 Nairobi, Kenya.
Tel: +254 (20) 3674 000 Fax: +254 (20) 3674 341 / 3674 342
Email: ibar.office@au-ibar.org
Website: www.au-ibar.org