



# **PROMOTION OF INDIGENOUS ANIMAL GENETIC RESOURCES AND THEIR PRODUCTS IN AFRICA**



## KEY MESSAGES

- *Development of new and existing niche markets or marketing strategies can help overcome the continual state of decline of indigenous AnGR breeds by raising their visibility and promoting their continued breeding.*
- *Structured breeding programmes could establish a new place for indigenous breeds in modern agriculture.*
- *Consumers increasing demand for quality food products indicates that there are open markets for indigenous AnGR breeds and their products.*

## INTRODUCTION

These indigenous animal genetic resources (AnGR) breeds are not well characterized or described, and are often not subject to structured breeding programmes to improve their performance. Indigenous AnGR are in a continual state of decline due to indiscriminate crossbreeding and institutional policies that support use of high producing exotic breeds. The erosion of indigenous cattle genetic resources is a cause for concern in Africa as they are an integral contributor of food, agricultural power, agrarian culture and heritage, and genetic biodiversity. Indigenous AnGR enables farmers to select stocks in response to climate change, new or resurgent disease threats, new knowledge of human nutritional requirements, and changing market conditions or changing societal needs. Promoting Africa's indigenous AnGR has become necessary and urgent because of several misconceptions about the indigenous AnGR themselves, their products and services. Among the misconceptions is the perceived low productivity of indigenous AnGR, conclusions reached because of the apparent small sizes of indigenous AnGR. Their promotion essentially means putting together programmes and actions that support the elevation of the value of the indigenous AnGR per se, their products and services at the market place, for their aesthetics and decoration use, and for the potential use as germplasm for preservation and conservation of breeds in the face of threats of drastic reduction of numbers and possible extinction. Furthermore, the promotion of AnGR, for their products and the services they provide, as well as their aesthetic values must hinge on superior quality, attributes or characteristics, and the sustainability of the generation of the products and services. Development of new and existing niche markets must be an important objective in the process of promoting the products and services from indigenous AnGR. Indigenous AnGR breeds have competitive advantages over exotic breeds. Given the current harsh production circumstances and potential for significant future changes in production conditions and production goals, it is crucial that the value provided by indigenous cattle genetic diversity is secured through characterization, conservation and development of breeding programmes.

## POLICY RELATED ISSUES

- Government policies and institutions are unsupportive. The absence of the policies and frameworks, institutional infrastructure, necessary to facilitate the implementation of genetic improvement programmes, in Africa, is a major obstacle to the further development of indigenous AnGR breeds. Government policies on AnGR breeding are, in general, not sufficiently developed. There is need to develop appropriate policies to conserve the AnGR and actively promote their use in production systems. Such policies should clearly recognize indigenous AnGR as the basis for livestock development.
- In many instances inventory and characterization and breeding programmes are not in place. It is currently difficult to estimate accurately the total number of AnGR breeds as inventory and characterization efforts are far from being completed in many African countries. Many countries indicate that they have the capacity to undertake phenotypic characterization, but lack the capacity to perform advanced genetic and molecular characterization. There is insufficient research and development work on indigenous AnGR necessary to enhance understanding of their value as well as promoting their use.
- The population size of indigenous AnGR breeds continue to decrease and they become endangered. The market driven trends have led to an intensive production of a few globally used high-output AnGR breeds. As a result, breeding is focused on a few economically important performance traits of high market value, e.g. meat proportion, milk volume, egg numbers, while many of the characteristics that concern farmers, such as health, fertility or longevity, carry less weight. The loss of endangered indigenous AnGR breeds comes along not only with the risk that inbreeding increases within high-output populations but also with the ongoing reduction and potential loss of genetic diversity and of alleles that currently are not thought useful in achieving breeding objectives.
- The public, but in particular policy makers and the private sector, has very little knowledge regarding the value of indigenous livestock and their role in increasing food security. There is hardly any documentation or acknowledgement of indigenous knowledge on the value of indigenous AnGR.
- Commercially viable enterprises/activities in indigenous livestock are few, if any, as markets for these indigenous AnGR are yet to be fully developed. The promise of benefits from niche marketing of local AnGR and products faces many challenges including among others: the lack of recognition of the value of the products, low quality of the products, the availability of the products (only in small quantities or during certain seasons), local conditions are often demanding, (making production and marketing difficult to manage), organizing producers and processors may be difficult (especially among mobile pastoralists), the lack of capacity of livestock keepers to manage a market-oriented business and the difficulties in identifying suitable markets

- for products and establishing reliable links with customers, especially in export markets.
- Farmer organizations, breed societies for indigenous breeds are few and often non-existent especially in the smallholder sector. The few associations that exist are not participating fully in the development and promotion of indigenous AnGR breeds because of lack of incentives (niche market, labelling and certification for the sustainable use of indigenous AnGR).
  - Farmers associations and breed societies do not exist in many developing countries, which makes the implementation of breeding programmes and training of farmers more challenging. Furthermore, the characteristics of many low external input production systems, such as the existence of small populations of livestock widely distributed across expansive areas or numerous islands, or conditions where animals are routinely moved long distances, makes the design and implementation of breed development schemes extremely difficult.

## LESSONS LEARNED

### **Breeding goals**

Benefits of utilizing and including indigenous AnGR into genetic improvement programs are well documented and can only improve the animal production systems in Africa. This is a cause of concern as there are a number of indigenous AnGR that have important traits that can be incorporated into genetic improvement programs. Traits of socio-economic relevance include those associated with adaptability, hardiness, cultural and market values. These traits are not normally evaluated under organized genetic improvement programs. Indigenous AnGR are used for multiple purposes, the benefits of including them in these programs are obvious in terms of genetic gains obtained as well as the wider socio-economic dimensions that come into play.

### **Absence of Appropriate policy and regulatory frameworks**

Appropriate policy and regulatory frameworks are essential for the management, conservation and the sustainable use of indigenous AnGR breeds. There are, currently, significant policy gaps in the sense that there is a lack of specific strategies, policies and regulatory frameworks in relation to AnGR in Africa. Some of the policies are also “naked” due to the non-existence of legal instruments to back them and this presents a huge challenge when it comes to their implementation. AnGR National Action Plans (NSAPs) are being developed and will provide policy direction regarding use of selection and crossbreeding to ensure sustainable utilization of species and breeds.

### **Breed societies/farmers associations**

Breed societies are an important for the management of improvement programs. Unfortunately these breed societies/farmers associations are not always available in most

African countries. This factor affects the design, implementation and the sustainability of the programs. The conservation and subsequent utilization of indigenous AnGR can only succeed if strong breed societies/farmers associations are formed or existing ones are strengthened. Breed specific societies/farmers associations are being formed to fully participate and cooperate in improvement programs.

### **Niche markets**

There are niche markets where equally strong preferences for indigenous AnGR and their products can be found. It is with these niche markets for indigenous AnGR that the efforts for the promotion of AnGR products must be directed. Further development of existing and new niche markets must also be an important objective in the process of promoting the products and services from indigenous AnGR. Niche markets in regions closer to Africa, such as the Middle East and the Gulf States are of primary importance given the level of demand for live animals and meat from Eastern Africa, in particular.

## **SETTING THE POLICY AGENDA**

The Agenda setting for policy discussions, formulation and communication of the eventual policies should consider:

### **Create policy environments conducive for the development of indigenous AnGR**

There is evidence that vast and wider demand for livestock products could catalyse the demand of products of indigenous AnGR, both in regular and niche markets. It is necessary to develop policies that promote growth in disposable incomes of both public and private sector. Diversification of diets would be indirectly supporting and improve the prospects of local AnGR attracting larger attention for their utilization.

### **Promote and support the improvement of local AnGR in order to enhance their productivity**

The productivity of indigenous AnGR can be increased substantially by improvement in the production environment such as better feeding, both in quality and quantity, better animal health inputs, general animal husbandry management, and through genetic improvements. Higher producing livestock with improved body conditions would likely attract better prices at the market place, and may even be competitive with other breeds on the market hitherto considered to be superior. Both public and private sector leadership and financial support to breed improvement programmes and adequate government budgetary allocations to public institutions responsible for bringing services to livestock farmers and related organizations will go a long way to increase the contribution of local AnGR to the total supplies of livestock products supplies in meeting local and external demand.

### **Encourage and promote value addition in the livestock sector**

Create financial environments that favour the development and adaptation of technologies that add value to the existing AnGR products while at the same time supporting awareness creation efforts for producers and processors to adopt the technologies for value addition. Affordable credit facilities to farmers, processors, marketers and cooperatives could be facilitated by governments, private sectors and public-private partnership institutions. Proper encouragement for value addition could result in the development of new products that may attract newer niche markets. Introduce marketing strategies for exporting livestock products, especially meat, that recognize the largely use of natural inputs in producing products in extensive systems, and promote the products as “fully organic” or “partly organic” so as to attract higher demand and higher prices at international niche markets.

### **Characterization**

Characterization and conservation of indigenous cattle breeds, including their unique products, should be accorded high priority. That is essential in designing conservation programmes for indigenous cattle and could strengthen the future position of the indigenous cattle breeds in the expected new smallholder cattle production systems and changing production environments.

## ***POLICY OPTIONS AND RECOMMENDATIONS***

Policy options to promote the marketing of AnGR and their products include:

- Government should create policy and financial environments that favour the development and adoption of technologies that add value to indigenous AnGR breeds and their products.
- Awareness should be increased among policy-makers and members of the public and the private sectors of the many contributions of indigenous AnGR breeds to national economies and promote them in order to increase investments in the management of these resources.
- Government should establish national AnGR breeding laws and policies, institutional development and capacity building to ensure strong national programmes for indigenous AnGR breeds and control or monitor the importation of exotic genetic material.
- Awareness should be increased among policy makers regarding the need to invest in the inventory and monitoring of indigenous AnGR breeds and strategically enhance or establish national monitoring and reporting systems to determine breeds trends and performance.
- The formation of breed specific organizations/associations should be encouraged to assist in policy development and management decisions including issues related to the

improved use of underutilized indigenous AnGR breeds and to use breeds currently not being used by establishing the required conditions to increase their contribution to food and agriculture.

- Government should provide a range of incentives to farmers to encourage their participation in indigenous AnGR breeds valuation, in particular to farmers in marginal areas (including: financial payments, tax breaks, subsidized loans).
- Government should support the development of niche markets, services and market infrastructure for products of indigenous AnGR breeds to increase profitability and encourage the keeping of these breeds.

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