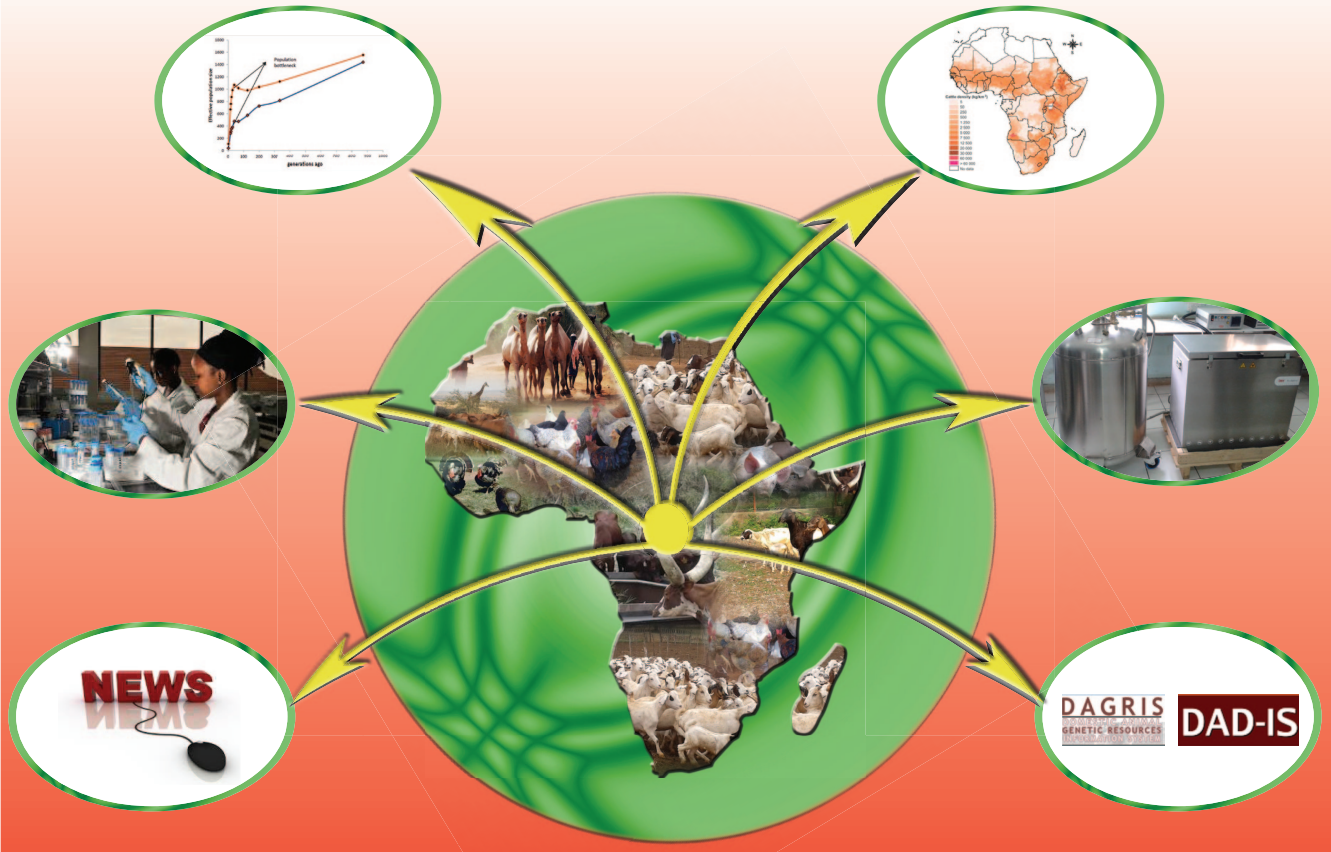
AFRICAN UNION
INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES

# AFRICAN ANIMAL GENETIC RESOURCES INFORMATION SYSTEM -AAGRIS-




*Bridging the Knowledge Gap*

AnGR

African Animal Genetic Resources

# African Animal Genetic Resources Information System AAGRIS

## General Information

Lack of adequate information has continued to be a major constraint to livestock development, poverty reduction and food security in Africa. This deficiency can be attributed to the lack of an efficient and effective information system in Africa that documents and disseminates information within the AU Member States. It is apparent that there is disconnect between evidence/data availability and development/formulation of well-informed livestock breeding programmes, livestock management and livestock policies.

Evidently, Africa's need for a customized information system on Animal Genetic Resources (AnGR) that meets her specific needs has long been overdue. The calls for the establishment of an all-inclusive system that is founded on four main pillars – functionality, accessibility, reliability and sustainability – has been continuously voiced by Member States and the call to action is now. AU-IBAR has heeded this call and through the AU-IBAR Genetics Project "*Strengthening the Capacity of African Countries to Conservation and Sustainable Utilization of African Animal Genetic Resources*", under the activity "**Establishment of an African Animal Genetic Resources Information System (AAGRIS)**", it intends to support the establishment of an information system specific to African AnGR, that will improve information analysis and dissemination between member countries and provide a much needed centralized and interactive information system.

The trademark characteristic of AAGRIS is that its structure and layout will be customized to meet the specific information needs and requirements of all AnGR stakeholders within the African continent. The relevance and functionality of the proposed structure will be founded on the stakeholders' and Member States' needs thus promoting a sense of ownership. This system will function as a "*one-stop-shop*" where a wide range of end-users will be able to obtain relevant information that will address local, national, sub-regional, regional and continental-level issues.

## Overall Goal of AAGRIS

To bridge the information and data gaps on African Animal Genetic Resources between key AnGR stakeholders, policy makers, Member States and worldwide audiences through the development of an African-owned information system.

## Key Features of AAGRIS

- Multi-level application whereby it can be used at sub-national, national, regional and international levels with multi-user and multi-lingual features.
- Interoperable with global and regional databases such as DAD-IS (FAO) and DAGRIS (ILRI).
- Customizable modular approach whereby modules will be expandable to meet and suit varied user and country needs.
- Real time data entry, uploading and updating through the adoption of telephony utilizing the Open Data Kit (ODK)® system.
- Modern and dynamic with an interactive and user friendly interphase.

## Scope of Core Sub-module Areas

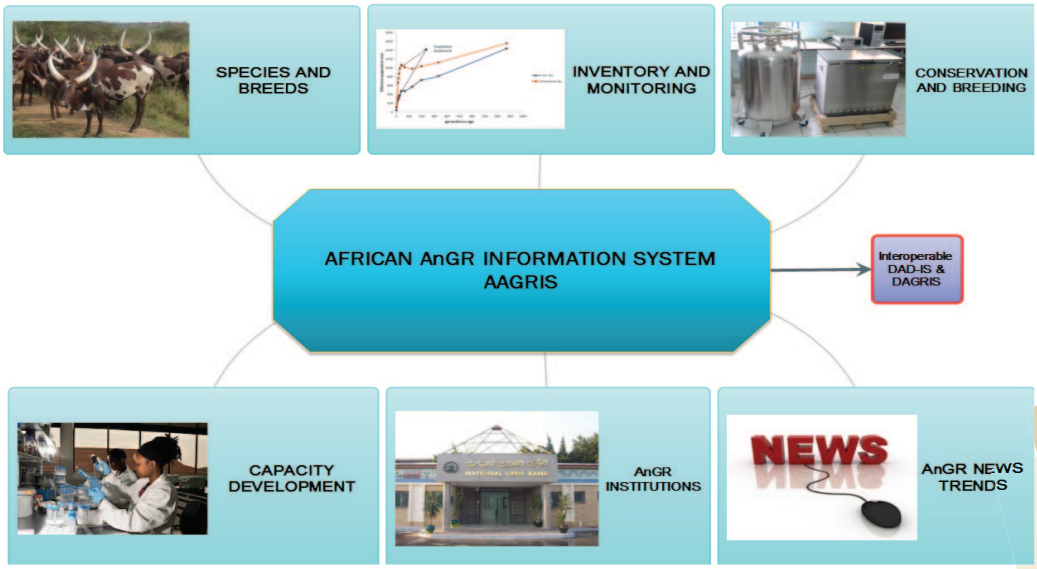
Six core areas have been identified, including:

1. *Species and breeds* – This category will focus on species and breed descriptions. It will mainly capture information on phenotypic and molecular characterization

of African Animal Genetic Resources. The information and data will encompass breed history, scientific and local names, photos, spatial distribution maps, genetic features, performance (production and reproduction), socio-economic value and indigenous knowledge. Some aspects of this category are available in DAGRIS and thus the need to ensure interoperability between the two systems.

2. *Conservation and breeding programmes* – This sub-module will focus on collecting and disseminating information on the geographical location, descriptions of the conservation and breeding programmes with special mention of their objectives, *modus operandi* and impacts. Success stories of conservation and breeding programmes are key and will be highlighted as a basis for identification of the best practices and lessons learnt.
3. *Characterization and monitoring* – This category will capture information and data on various aspects of population trends and status of breeds. The focus will be on population size, herd structure/ demography, threats and their relative rankings as well as opportunities.
4. *Capacity development* – Focus of this sub-module will be to provide learning materials to build capacity on AnGR. Publications, E-learning tools developed by relevant stakeholders, characterization, inventory and monitoring tools, and protocols will be made accessible.
5. *AnGR news trends* – Information on upcoming events (symposiums, workshops, conferences, etc.), proposal calls, scholarship vacancies and consortium opportunities is key and will be the main components of this category. The category will also be linked directly to the information sharing networks – DAD-NET Africa and S-RFP.
6. *AnGR institutions* – This will be an institutional and experts database that captures all available contact information on the sub-regional focal points, breeders' associations, training institutions, national, regional and international AnGR associated organizations.

### *AAGRIS Conceptual Structure*



AAGRIS will be a combination of data collection and web portal systems. The web portal will be mainly used for the display of the analyzed data as well as a linkage to the already existent AnGR information systems (DAD-IS and DAGRIS), while the data collection system will be for collection and compilation of data from member states and other relevant stakeholders.

### *Management of AAGRIS*

AAGRIS will be managed by AU-IBAR under the already established Animal Resources Information System (ARIS2). ARIS2 is a dynamic in-house system that has been operational since 2000 and mandated to gather and analyze data on animal resources before dissemination to Member States. The Genetics Project has adopted an all-inclusive approach whereby accurate data and information collection will be the responsibility of all key stakeholders; farmers at village level, breeders associations, university students, researchers, national coordinators, sub-regional focal points and RECs.

### *Target Users*

- Member States - overseers of AnGR in Africa
- Breeders Associations
- Research Institutions
- Institutions of higher learning – future custodians of African AnGR
- Livestock keepers – guardians of AnGR in Africa
- Policy and decision makers

### *Expected AAGRIS Impact*

*Information is power* – Through AAGRIS, the African continent will be empowered in terms of knowledge and information on African AnGR. The information system will improve the accessibility and availability of information within the continent for numerous stakeholders. The project's greatest impetus is to be able to capture the policy makers' attention by identifying key indicators that can be made available to them to assist in the policy-making processes and resources allocation.

Through AAGRIS, we hope to enhance the synchronization and harmonization of characterization and monitoring of AnGR within Africa through the improved accessibility of downloadable versions of standardized AnGR guidelines. AAGRIS being an interactive information hub will propel researchers and other relevant stakeholders towards being technically empowered through the newly developed E-learning tools.

This is an information system that will take Africa to a whole new level in terms of promoting cross-talking and cross-pollination of ideas related to the improved utilization and conservation of AnGR resources within and outside the continent. Sharing of experiences and lessons learnt will steer the development of well-informed strategies in relation to AnGR management, utilization and conservation.

*The new source of power is information in the hands of many*

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