

2013

**Regional Inception Workshop Report
Animal Genetics Project**

African Union, Interafrican Bureau
for Animal Resources

Strengthening the Capacity of African Countries to Conservation and Sustainable Utilisation of African Animal Genetic Resources

Ouagadougou, Burkina Faso

6th to 9th November 2013

**Report of the Regional Inception Workshop of the Project
Animal Genetics**

African Union

Interafrican Bureau for Animal Resources

January 2014

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Acknowledgements

The Project Team would like to thank all the participants of the workshop who have all contributed in getting this project off the ground.

Our partners have worked tirelessly to ensure a successful workshop. We are confident that the mix of scientists, practitioners and policy makers from the regions will prove very stimulating.

We further extend our gratitude to ILRI-SLU and FAO who have given invaluable support during the preparation of this workshop.

Executive Summary

The Regional Inception Workshop co-organized by AU-IBAR, ILRI-SLU and FAO for West and Central Africa was held in Ouagadougou, Burkina Faso on 6th - 9th November 2013. The aim of the workshop was to launch two initiatives on Animal Genetic Resources in Africa. The first one was the project “*Strengthening the Capacity of African Countries to Conservation and Sustainable Utilization of African Animal Genetic Resources*” funded by the European Union that will be implemented by AU-IBAR and the second one was the FAO Technical Cooperation Project “*Assistance for Regional Initiative on Animal Genetic Resources in Africa*”. The inception workshop also aimed at acquainting National Coordinators with the project, the institutional arrangements and assisting the African Union Member States to submit their reports as a contribution to the Second Report on the State of the World’s Animal Genetic Resources for Food and Agriculture.

Interactive discussions were held between the AU-IBAR Animal Genetics Team and the participants regarding the project with focus on the project’s activities, the implementation plan and targeted outcomes. The participants gave positive feedback on the project objectives as well as the institutional arrangements.

Further, the status of the four strategic priorities of the Global Plan of Action (GPA) was deliberated upon at length. Four general aspects were discussed;

- Mapping of the national and regional initiatives (inventory)
- The current status of implementation of these initiatives (nationally and regionally)
- Status of the Global Plan of Action initiatives
- Opportunities for enhanced regional collaboration in development of breeding programmes with the current resources

Early in the discussion it became clear that majority of the countries have successfully set-up national initiatives and highlighted additional activities that they intend to roll-out in future. Participants presented a common agenda on the conservation and sustainable use of certain trans-boundary breeds such as the Djallonké sheep, the West African Dwarf Pig, the N’Dama cattle etc. The workshop emphasized the need to develop clear breeding strategies for these breeds across the region, strengthening of pre-existing regional projects and promoting capacity-building initiatives within the region.

Because data and information are central to science in general and sustainable development in particular, the collection and sharing of data, information and knowledge about animal breeding is a major need. Ensuring compatibility of data systems, and providing the infrastructure, including the necessary access to the internet, for the collection, analysis and presentation of the data are vital steps.

During the workshop, FAO also provided guidance on drafting, compilation and submission of the 2nd SoW-AnGR to the participants. All National Coordinators were reminded of the requirements needed whilst uploading the data in DAD-IS. Deadlines for the various FAO activities were highlighted:

- National reporting on legal and policy frameworks affecting the management of animal genetic resources 27th December 2013
- Submission of the draft country reports 31st January 2013
- Updating of the country data in DAD-IS 30th April 2014.

The key messages highlighted during the workshop were: 1) that implementation of the Global Plan of Action for Animal Genetic Resources in the West and Central Africa region has been slow and that the characterization of many of the region's breeds is incomplete; 2) that valorization and market-access strategies would help the region better respond to the erosion of AnGR; and 3) that the main regional priorities should improve the management of the trans-boundary breed and their conservation. Finally, financial and political supports, as well as awareness of the roles of Animal Genetic Resources, were identified as prerequisites for addressing these issues.

41 participants attended the regional workshop. Most of these were National Coordinators for the Management of Animal Genetic Resources and researchers and professionals working on animal genetic resources management in livestock administrations and universities. National Coordinators (NCs) drawn from the respective Member States; Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo and Democratic Republic of Congo. Other participants included representatives of international organizations CORAF/WECARD, CIRDES and ITC/WALIC institutions.

The AU-IBAR Animal Genetics Team arranged after the Regional Inception Workshop, a meeting with CIRDES Director General, Dr. Valentine C. Yapi-Gnaoré and her team to discuss institutional arrangements and the role CIRDES could play in the implementation of the activities of the project.

This document summarizes the discussions that took place during the Regional Inception Workshop. The Agenda of the two days, the list of participants are attached in the Annexes.

Introduction

AU-IBAR is currently implementing a project which seeks to strengthen the capacity of AU Member States and Regional Economic Communities to sustainably utilize and conserve African AnGR through institutionalizing national and regional policy, legal and technical instruments. The project is also planning to fast-track the implementation of the Global Plan of Action (GPA) adopted in 2007 as the main strategy to ensure sustainable utilization and conservation of AnGR in Africa and halt their erosion. During its 14th regular session, the FAO Commission on Genetic Resources for Food and Agriculture requested an update of the State of the World's Animal Genetic Resources for Food and Agriculture to be presented in November 2014. Countries are consequently invited to submit their reports to FAO not later than 31st January 2014 and at the same time to update their Animal Genetic Resource Inventories by 30th April 2014. The main objectives of the process leading to the Report on the State of the World's Animal Genetic Resources are to determine the state of global farm animal genetic resources, to evaluate policies and technologies for their utilization, to identify country priorities for immediate action, and to build local capacity to manage these resources.

One of the activities of the current project during the inception phase is to organize Regional Inception Workshops. Regional Workshops provide opportunities for communication, exchange and sharing of information as well as building of the project team and partnerships within the framework of its implementation. These workshops serve to promote the necessary synergy and map the way forward for the successful implementation of the project.

The Regional Inception Workshop co-organized by AU-IBAR, ILR-SLU and FAO for West and Central Africa was held in Ouagadougou on 6th - 9th November 2013. The aim was to launch two initiatives on Animal Genetic Resources in Africa. The first one was the project "Strengthening the Capacity of African Countries to Conservation and Sustainable Utilization of African Animal Genetic Resources" funded by the European Union that will be implemented by AU-IBAR and the second one was the FAO Technical Cooperation Project "Assistance for Regional Initiative on Animal Genetic Resources in Africa". The inception workshop also aimed at acquainting National Coordinators with the project, the institutional arrangements and assisting the African Union Member States to submit their reports as a contribution to the Second Report on the State of the World's Animal Genetic Resources for Food and Agriculture. The objectives of the workshop were:

- Create common understanding, among National Coordinators of AnGR on the project goal, objectives and outcomes as well as roles and responsibilities of partners and stakeholders involved
- Discuss the project's Result Areas, Activities, implementation strategy and the required information and make necessary adjustments
- Familiarize AU Member States with FAO's requirements and guidelines for the preparation of National Reports for the SoW-AnGR and update their Animal Genetic Resource Inventories
- Discuss and establish appropriate processes to update and enrich countries' databases

During the workshop, FAO also provided guidance on drafting, compilation and submission of the 2nd SoW-AnGR to the participants. All National Coordinators were reminded of the requirements needed whilst uploading the data in DAD-IS. Deadlines for the various FAO activities were highlighted:

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Opening Ceremony

The official opening ceremony was presided over by the Minister of Livestock and Fisheries in Burkina Faso, Mr Jeremy Ouedraogo.

Welcome: ILRI's country and West Africa's Regional Representative

In an opening address to the workshop, Abdou Fall, commended the strong representation from 22 countries in the region: from Senegal to Congo and from Benin to Ivory Coast, Guinea Bissau and Niger. This geographic breadth', Fall said, 'should help provoke dynamic discussions on better and more sustainable use of Africa's livestock breeds and genes and the capacity development programs that underpin this.

Remarks by SLU

Professor emeritus, Jan Philipsson, representing the Swedish University of Agriculture (SLU) pointed out that livestock is extremely important, not just in West and Central Africa but also to the rest of the continent. "A research was made and it showed that there is a still lot of work that needs to be done in animal genetics" Philipsson said.

Remarks by FAO

The Food and Agriculture Organization (FAO) Animal Genetic Resource Branch representative Beate Schref, expressed her enthusiasm of the ongoing workshop and stated that it signified a great interest in Animal genetic resources, something that could greatly benefit not only Africa, but the rest of the world.

Remarks by AU-IBAR

The Project Officer, Dr. Edward Nengomasha welcomed participants on behalf of the Commissioner of the Department of Rural Economy and Agriculture (DREA) of the African Union Commission and on behalf of the AU-IBAR director. He warmly welcomed the participants to the Regional Inception Workshop and informed them that the AU has signed a Contribution Agreement with the European Union for the implementation of a project entitled "Strengthening the Capacity of African Countries to Conservation and Sustainable Utilization of African Animal Genetic Resources" that would run for 5 years. The project has a total budget of 14.9 million euros (14.5 from EU and 0.4 from the AUC). The project aims to promote institutionalization of national and regional policy, legal and technical instruments for the sustainable utilization of the AnGR in Africa and create awareness for the inclusion of AnGR issues into national and regional agricultural investment priorities through the CAADP process.

The project will also increase the capacity of Regional Economic Communities in harmonizing policy and legislative frameworks on AnGR at regional levels. The project will cover the 54 MS of the AU and will be implemented in partnership with FAO, ILRI, CIRDES and ITC. He took the opportunity to pay particular tribute to the European Union for the invaluable financial support offered towards the successful implementation of this Project. He informed the participants that four Regional Inception Workshops were planned before the end of the year. These would be held in Ouagadougou, Kigali, Gaborone and Algiers. He further reminded the objectives of these inception workshops being to:

- Create common understanding, among National Coordinators of Animal Genetic Resources, on the project goal, objectives and outcomes as well as roles and responsibilities of stakeholders involved
- Discuss the project's Result Areas, Activities, implementation strategy and the required information and make necessary adjustments
- Familiarize AU Member States with FAO's requirements and guidelines for the preparation of National Reports for the SoW-AnGR and update their Animal Genetic Resource Inventories
- Discuss and establish appropriate processes to update and enrich countries' databases

He noted that the meeting offers an appropriate platform to exchange and share ideas and technical information related to animal genetic resources and to build on expectations, address key concerns and strategize on how to best implement the project in the field. He finally profoundly thanked the Government of Burkina Faso for hosting the workshop.

Minister of Livestock and Fisheries in Burkina Faso, Jeremy Ouedraogo

Mr Jeremy Ouedraogo welcomed the workshop participants and expressed his pleasure to be at the opening of this workshop that had gathered experts in Animal Genetic Resources from West and Central Africa. Addressing the representatives from countries invited for the meeting, Minister Ouedraogo highlighted the need for regional cooperation among individuals and institutions given the region's scarcity of qualified livestock breeders. He pointed out the urgent need for more appropriate breeding strategies and schemes that will ease access by poor farmers herding livestock in harsh environments to superior livestock germplasm. He thanked AU-IBAR for the new initiative in Animal Genetic Resources.

He expressed his confidence that the participants would work very hard towards the accomplishment of the objectives of the workshop. He thanked the organizer for having chosen Burkina Faso as the host country.

Adoption of Workshop Programme and Objectives

Dr. Julie Ojango made a presentation of the workshop agenda and objectives and facilitated a participatory introduction of participants. After a short introduction of all participants and a short presentation of their functions and their structures in their respective countries, the workshop agenda was presented. The agenda, during the three (03) days, articulated around the following points:

- Breeding and Conservation programs
- Developments and research on breeding programs
- Resource mobilization for research on animal breeding programs

- Developing concept notes—what could be done with present resources? What else would be needed?
-

The agenda was adopted without amendments.

Workshop Format and Plenary Sessions

The workshop agenda (see Appendix A.) was a combination of plenary sessions to provide a common perspective to all the attendees and of breakout sessions for more detailed interactive discussion on different aspects of Animal Genetic Resources in Africa. The sections below describe the plenary sessions and the activities related to the breakout sessions.

Summary of Plenary

Breeding and Conservation programs

Presentation from AU-IBAR: Project “Strengthening the Capacity of African Countries to Conservation and Sustainable Utilization of African Animal Genetic Resources”

After a break following the opening, the workshop continued in plenary.

Dr. Nengomasha presented the Genetic project. He first focused on the context, the overall objective and purpose of the project, the location where the project will be implemented, target groups and beneficiaries and concluded with the results and main activities of project.

Dr. Bosso then presented the institutional arrangements including the project partners. The presentation was followed by a discussion. The project will be implemented with the active participation of government departments, Regional Economic Communities (RECs), the assistance of local implementing agencies, international Non-Governmental Organizations (NGOs), representatives of the civil society such as associations of farmers, women, and youth.

Presentation from Beate Scherf from FAO: “Key role of FAO in West Africa. Regional priorities and on-going activities”

Ms. Beate mentioned that the role of FAO is to provide a neutral platform for intergovernmental discussions in West Africa. This is done with the help of the Commission on Genetic Resources for Food and Agriculture and the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture (ITWG).

She noted that the ITWG consisted of 27 members and Africa was represented by Cameroon, Eritrea, Morocco, Namibia and Togo. The FAO role is to further assist the region and countries in the implementation of the Global Plan for Action which is an internationally agreed framework that aims at promoting the sustainable use, development and conservation of animal genetic resources and supports and increases overall effectiveness of national, regional and global efforts. At regional level, the role of FAO is also to insure the development of the institutional framework through the support of the Sub-Regional Focal Point for Animal Genetic Resources in West and Central Africa, to implement jointly with AU-IBAR, the TCP/RAF/3403 (May 2013 - Nov 2014); and to conduct Regional Initiative on Animal Genetic Resources in

Africa. Regional Initiatives on Animal Genetic Resources in Africa are around the support of the RFPs West and Central Africa (AnGR related studies, identify priority needs and formulate projects for follow-up). The expected outcomes are an improved coordination and efficiency of AnGR initiatives at regional level, improve livelihoods of livestock keepers and support sustainable use of AnGR.

Presentation from SLU, Professor emeritus, Jan Philipsson: Breeding and conservation issues of global importance

Professor Philipsson introduced the topic of Breeding and conservation issues by presenting their global importance for

- Food security and globalization
- Genetic diversity - Productivity
- New technologies – Infrastructure
- Capacity development

He then listed some key challenges for Developing Countries in order to meet the increasing demands for food of animal origin on an increasingly competitive market: 1) without having more new land to utilize, 2) without environmental degradation of land and water, 3) considering the needs for future genetic diversity. He stated that we must utilize the potential of the animal genetic resources and increase the productivity per animal and develop relevant simple Animal Breeding Programs.

Professor gave some lessons learnt from the ILRI – SLU project:

- Lack of infrastructure a serious constraint for developing functional breeding programs
 - Livestock recording a necessity
- Increased human capacity able to translate new knowledge into actions for sustainable use of AnGR is urgent in all regions included in the project - more people need to be trained (all levels)
- Linkages between universities, research institutes and ministries need to be strengthened
 - And university staff should also do applied research
- Previous course participants and NCs showing leadership should become regional "trainers of trainers"
 - Jointly organized workshops to empower the "champions"

He then concluded his presentation with ten (10) general AnGR issues for discussion, namely:

1. How to prevent breeds from being at risk?
 - a most important issue!
 - lack of breed competitiveness a cause of being at risk!
2. Use of resources for conservation of inferior breeds vs investment in improvement of still promising breeds?
3. Conservation methods determined by genetic vs economic or cultural reasons?
4. Conservation of genes or genotypes?
 - the breed concept?
 - cryopreservation?

5. Controlled crossbreeding as a tool for conservation of pure breeds?
6. Globalization in use of breeding materials
 - opportunities for improvement
 - risks for indiscriminant crossbreeding and loss of breeds
 - risks of inbreeding
 - risks of unwanted trade agreements
7. New technologies exciting, but...
 - livestock recording the basis for capture of phenotypic information to be used for
 - any selection program including genomics
 - information and knowledge transfer
8. The safest way of conserving a population is to continuously develop it!
9. Capacity building at all levels needed!
10. Best ways forward in this region?

Presentation from Dr. Julie Ojango ILRI/SLU: Capacity development in animal breeding and genetics – insights and opportunities from a decade of regional “training of the trainer” experiences

In order to sustainably utilize the AnGR in developing countries there is a great need for capacity building at all levels. Capacity building at universities and NARS in developing countries usually target students at MSc and PhD levels in collaborative programs with universities in developed countries. Yet the potential of utilizing the existing capacities of the many NARS could be enhanced considerably, and the effects of capacity building could be much greater, if university and NARS scientists were given opportunities for continued training and collaborative projects.

ILRI in collaboration with SLU (Swedish University of Agricultural Sciences), launched the project, Capacity Building for Sustainable Use of Animal Genetic Resources in Developing Countries. The main objectives are to strengthen subject knowledge and skills, as well as teaching and communication skills, of university and NARS animal scientists teaching or supervising BSc, MSc and PhD students in developing countries. Other objectives are to stimulate contacts and networking, and to develop computer-based training resources relevant for use by NARS scientists in teaching and research. The project has had a large impact through the strengthened knowledge and skills of scientists in developing countries and the large number of students reached, and also through enhanced potential for collaborative research between the universities, NARS, ILRI, and other organizations.

The project includes the following components:

- Surveys and visits to universities and research institutes in different developing countries to learn the actual situation in teaching and research hence are able to identify areas where assistance is most needed.
- Planning workshops in different regions with leading university faculty and NARS scientists to introduce them to the project, to propose and discuss the intended course programs, and the teaching resources to be produced or made available.
- Courses on theories and applications, including project work, on the sustainable use of indigenous AnGR, and on communication and teaching methods.
- Production of computer based training resources, including introductory core texts in five different modules

- Networking by establishing more collaboration within countries between universities and research institutes, as well as between scientists in a region by establishing electronic discussion groups through the Internet.
- Follow-up workshops by region to study the impact of previous courses and teaching resources made available in order to further improve the continuing education of the scientists and for strengthening their research capacity.

Concerns raised during the presentations focused on:

- How much money does each of the African countries receive due to the relative small amount for the project?
- What will be the roles and responsibilities of the National coordinators
- The need for training for the national coordinators
- The need to equip the NC with material to perform their task
- The need to clarify the confusion between FAO coordinators and the appointed project coordinators by the ministries
- What was included in the term Champion and what was their roles
- Clarification about the roles of the champions in defining national objectives

Presentation from SLU, Birgitta Malmfors: Experiences of Nordic Collaboration in PhD Education within Animal Breeding and Genetics

She presented the development of the Animal Genetics Training Resource (AGTR) website. She mentioned that an essential component and output of the ILRI—SLU project has been the development of a computer—based training resource, the Animal Genetics Training Resource (AGTR), available online and on CD from ILRI. The AGTR is a unique, ‘one stop’, user—friendly interactive, multimedia resource, primarily targeted at researchers and scientists teaching and carrying out research in ABG. It is a dynamic training resource designed to help strengthen the capacity of NARS: inform the design and implementation of breeding programmes; and provide information that will empower countries and institutions to undertake their own research and apply available information and knowledge. It covers established and rapidly developing areas, such as genetic based technologies and their application in livestock breeding programmes.

Core to the AGTR are Modules on:

1. Global perspectives on animal genetic resources for sustainable agriculture and food production;
2. Improving our knowledge of tropical indigenous animal genetic resources;
3. Sustainable breeding programmes for tropical farming systems;
4. Quantitative methods to improve the understanding and utilization of animal genetic resources: and
5. Teaching methods and science communication.

The modules are supported by over 40 case studies that summarize real—life experiences and capture indigenous knowledge and lessons learnt from developing countries. The case studies also illustrate principles and/or methodologies commonly applied in animal genetics, from real—life situations and highlight knowledge gaps appropriate for post-graduate theses or further

research. Practical examples, exercises, compendia, a library with full—text articles in ABG and links to relevant web resources are included. The AGTR also has links to many other information sources on and related to AnGR.

Workshop Breakout Tracks on Breeding and Conservation programs

The second part of the workshop was organized around two tracks of breakout sessions. Each track was divided into session topics, addressed by different breakout groups. Each topic was led by representatives from Member States and facilitated by a note taker. The groups formed were:

Group 1: Benin, Senegal, Congo, Côte D'Ivoire

Group 2: Burkina Faso, Cameroon, Guinea, Chad, Equatorial Guinea

Group 3: Central African Republic, Gabon, Mali

Group 4: Guinea-Bissau and Sao Tome and Principe

Group 5: Niger, Togo, Democratic Republic of Congo

Group 6: Gambia, Ghana, Liberia, Nigeria, Sierra Leone

Questions to be addressed included:

- Mapping national and regional initiatives
- Status of implementations (nationally and regionally)
- Global Plan of Action initiatives
- Opportunities for enhanced regional collaboration in development of breeding programs with present resources

Everyone was called back into plenary and ask to report back from group deliberations into a plenary session on the conclusions they have reached as a result of their discussions, focusing on the practical solutions that were identified. See attached annexes for the reports of the groups discussions.

Update of the implementation of the GPA: report of the ITWG, financing the GPA

Most countries have appointed a National Coordinator for the Management of Animal Genetic Resources. The role of the National Coordinator is defined as follows: A government nominated person who coordinates national implementation of the Global Plan of Action for Animal Genetic Resources and leads the development and operation of a national network on animal genetic resources.

The National Coordinator works within the country's National Focal Point for Animal Genetic Resources.

FAO supports countries in their implementation of the Global Plan of Action for Animal Genetic Resources in a number of ways, including by:

- providing technical and policy-related training in areas such as the development of national strategies and action plans for animal genetic resources, institutional development, molecular genetic analysis, cryo- and in vivo conservation, and animal identification, traceability and performance recording;

- providing countries with support in policy development, drafting legislation and strategic planning;
- managing the Funding Strategy for the Implementation of the Global Plan of Action for Animal Genetic Resources;
- publishing technical guidelines on specific aspects of animal genetic resources management;
- hosting the Domestic Animal Diversity Information System (DAD-IS);
- operating the DAD-Net e-mail discussion network; and
- publishing the journal Animal Genetic Resources.

FAO also implements Technical Cooperation Programme projects in the field of animal genetic resources management. Requests for assistance from the Technical Cooperation Programme can be submitted by the governments of FAO Member countries.

Session on ILRI-SLU “Champion”

A joint session was organized with the ILRI-SLU Champions where topics for research in animal breeding programs was discussed. The ILRI-SLU Champions presented their reflexions made during the discussion session held.

Key Thematic research areas on AnGR priorities or pilot research projects for MSc and PhD thesis

- Molecular characterization of N’Dama, Baoulé, Djallonké and WAD goats ;
- Characterization of production systems for the above four breeds;
- Gene x environment interaction for different traits in selected breeds;
- Assessment and use of indigenous knowledge in AnGr management;
- Value of AnGR in West African countries;
- Evaluation of impact of crossbreeding in endemic cattle and sheep breeds;
- Selection of suitable local poultry breeds;
- Relative economic values of traits of micro livestock- grass cutters, rabbits, and guinea pigs;
- Molecular characterization of Asante Black pigs;
- Impact of transhumance on the sustainable management of endemic ruminant livestock.

The ILRI-SLU champions made also some proposals on how to make a difference in Animal Breeding and Genetics (ABG)

A. Increase enrolment of students in ABG courses for BSc and MSc degrees		
How	Who	When
1. Create awareness of employment opportunities in the area—and in other related areas: Organize seminars for students; put information on university website; mass media 2. Update curriculum to current needs—address contemporary issues Invite stake holders in the industry to join dept. and faculty in reviewing ABG;	Head of dept./Dean of faculty	2013/14 Start at 2013/2014 and every other three years

<ol style="list-style-type: none"> 3. Attract competent staff to train in the course: Advertise for competent staff both locally and internationally; train and retain; provide good incentives comparable to that of “the West” Provide teaching and learning infrastructure—laboratories, animals, Make the course more practically oriented Field trips and farm visits etc 4. Seek funds from FAO/AUIBAR etc. and award contracts; government input etc 5. Apply varying teaching methods and use case studies, use technologies available for animal improvement—eg AI 6. Train staff in different teaching methods: Field trips and farm visits 7. MSc—Seek funds to support student research projects (Scholarships) 8. Create opportunities for them to set up own practices—such as trainees/ apprenticeship various areas. 	<p>University administration and head of department</p> <p>Department and faculty</p> <p>Students and staff</p>	<p>2013/2014 academic year</p> <p>2013/2014 academic year</p> <p>2013/2014</p>
B. Strengthen networks and institutional cooperation, including farmer organizations on R4D and use of AnGR		
<ol style="list-style-type: none"> 1. Virtual network to Increase institutional subscription to DAD-Net 2. Joint regional network: Conceive joint regional proposals to develop ideas for CN on AnGR 	<p>Universities, research institutes, NGO’s</p> <p>Sub-regional FP</p> <p>Sub-regional FP coordinator</p> <p>National coordinators</p>	<p>6 Months</p>
C. Improve on delivery of teaching/learning skills on ABG		
<ol style="list-style-type: none"> 1. Make a state of art: Know the state—make a database on existing materials and share 2. Training of trainers—at regional level—on concepts and teaching methods, e-learning 3. Production and dissemination of teaching materials 4. Improve infrastructure 		<p>Use meetings/workshops</p>
D. Collaborate in the region for joint MSc and PhD programs on ABG		
<ol style="list-style-type: none"> 1. Inform and sensitize regional bodies (ECOWAS, CORAF, ILRI, TEAM-Africa) to agree on the initiative of AnGR network 2. Define objective of the MSc and PhD and curricular development 3. Prepare an inventory of resources (technical, human and finance) 4. Collaboration procedures and MoU between partners (technical and finance). 5. Calls for admission of students 6. Beginning of courses and 	<p>ILRI,CORAF and champions</p> <p>ILRI-SLU champions, consultants, international partners such as ILRI and SLU</p>	<p>2014-2016</p>

7. Exchange of lecturers		
E. Establish livestock recording to sustainably support farm management, including breeding programs, and action research		
1. Put together different actors to analyze problems of groups at different levels—innovation platforms to put together: <ul style="list-style-type: none"> - Recording schemes - Incorporate incentives for producers 	Farmers, Researchers, NGO's Consumers and policy makers,	
F. Develop sustainable breeding and conservation programs on selected breeds/populations and criteria for their choice		
1. Inventory and Characterization of AnGR-both Phenotypic and molecular 2. On-farm evaluation of animal breeding performance 3. Identification of objective breeding programs in line with national needs 4. Implementation of breeding program incorporating data recording and database management	Researcher institutes, breeders, university lecturers, farmers	2014 2-5 years (start 2014)
G. Conduct outreach capacity development for different target groups at national and regional level		
1. Develop training modules for different topics in AnGR 2. Training of trainers	Model farmers, Ministry staff, institutions and the "Champions"	Jan-June 2014 July-Dec 2014

The preparation of the Second State of the World's Animal Genetic Resources

The objective was to brief the participants about the SoW-AnGR 2nd process and help them to coordinate the reporting in their respective countries. Presentations were given including a Questions and Answer session and discussion. An overview of the State of the World's Animal Genetic Resources process was presented as well as the progress in the implementation of the Global Plan of Action (GPA). Each National Coordinator gave a statement on his/her involvement in the first SoW-AnGR process and the implementation of the GPA, the experiences and lessons learned were as well shared with other participants. There was a demonstration including some discussions on the Domestic Animal Diversity Information System and national reporting on AnGR. Group were again formed to work on the preparation of the national report, namely on how and whom to involve, problems and issues. The reporting back by working groups and discussion was done in plenary.

Messages from the groups

1. More investments in training scientists in animal breeding and genetics is one of the key strategy to transform the livestock sector
2. Capacities of actors along the livestock value chain and tertiary education should be enhanced
3. Phenotypic and genotypic characterization of livestock breeds should be done

4. Breed mapping should be done
5. Farmer's access to superior breeding males should be enhanced
6. Farmer awareness on the importance of recording for performance evaluation should be raised. Livestock recording is a necessary part of conservation and sustainable use of AnGR. There is need to involve strategic partners/organizations for sustainable recording.
7. How can politicians and opinion leaders be engaged to support research and development (R&D) in AnGR? What are the specific roles of scientists and NCs?
8. Outlining of the short-term benefits of AnGR improvement and conservation schemes at farm level is important.
9. Improving AnGR should be viewed holistically. ABG is a critical part of the whole system and must be undertaken together with other activities.
10. Regular review of Curricula and training methods to be more relevant and attractive for students is important
11. Develop regional programs with sub-regional bodies (the likes of CORAF), with SROs (ECOWAS), ILRI, FAO and AU-IBAR supports.
12. Strengthen linkages with ILRI, FAO NEPAD TEAM-Africa with permanent support office as a knowledge hub in AnGR in Africa.

Country Specific Messages from National Country Coordinators

Cameroon

- Strong Capacity Development Strategies within countries and among African countries (ABG in universities);
- Clear collaboration pathways including better communication concerning strategic priorities (which technologies for which species?);
- Appropriation du concept per le gouvernement au plus haut niveau;
- Accompagnement pour la finalization du plan d'action national pour sa mis en oeuvre;
- Adoption of a law on AnGR;
- Creation of a national AnGR agency/program;
- University community should have a better knowledge and access to NC & country/regional AnGR priorities to allow for more purposely training and capacity development interventions;
- Researchers/Lecturers should be part of national reporting system to bring new inputs;
- NUS (Non-Under Utilized)/Indigenous livestock should be encouraged by receiving more attention, promotion (eg. during censuses, pilot programs...) – what is the NC plan/strategy?

Nigeria

- Policy and regional cooperation;
- Conservation and breeding;
- Capacity Development;
- Infrastructure (labs, equipment, e-learning);

- Introgression of indigenous breeds with exotic breeds needs to be regulated or stopped all together;
- Need to develop ecologically and economic viable breed;
- Livestock Recording System;
- National Livestock Census.

Chad

- Engagement/institution politique
- Renforcement de capacités;
- Appropriation du plan d'action global.

CAR/RCA

- Equiper la coordination des RGN en moyen de travail sur le terrain (logistique, informatique; roulants etc.) et réhabiliter les deux stations d'élevage de Bouar et Bambari;
- Former les membres de la coordination des RGA dans les technique de caractérisation rédaction; et publication des résultats.

Guinée

- Inventaire et caractérisation des ressources génétiques disponibles;
- Mise en place du comité consultatif national d'amélioration génétique;
- Caractérisation du bétail local;
- Mise en place d'un programme de sélection de multiplication et de diffusion du bétail local.

Senegal

- Development of synergies and partnerships at national and regional levels;
- Improved access to information;
- Capacity Development;
- Higher Education;
- Elaboration de manière participative et inclusive d'un plan nationale d'amélioration génétique; des races bonnes (équines, caprines, porcines et aviaires);
- Renforcement des capacités technique organisationnelle et financiers des institutions et; associations de la productivité et de la compétitivité des ressources génétique;
- Implementation of regional scientific committee;
- Training coordinators in animal genetic resources management;
- Identification of proposals in the field of animal genetic resources management.

Burkina Faso

- Renforcement des capacités (formation) des acteurs impliqués;
- Assistance technique pour le relevance des activités;
- Characterization of our RGA populations;
- Evaluation of genetic potential of local breeds for their sustainable use;
- Recording and analyses of data;

- Quantitative genetics reviews and applied technics for others actors in animal production(s);
- Recording;
- Indigenous breeds characterization;
- Identification des animaux les systèmes d'élevage extensifs;
- Formation du personnel (cadres, techniciens) en génétique animale;
- National coordinator needs to communicate more regularly with all stakeholders (universities, research institutions, breeders,...) to give information about what is done, what is planned for the country and get stakeholders involved;
- The mission and annual workplans of NC have to be clarified;
- The NC needs more resources to conduct the tasks to operationalize annual workplans;
- Update records on AnGR (breeds, population size, location...) – is there a plan to do this; how?

Sierra Leone

- Training of farmers in improved animal production techniques;
- Develop research innovations in livestock for conservation of local breeds;
- Improve human capacity in AnGR at MSc and PhD level;
- Improvement in animal health and production delivery systems;
- Conduct a survey on AnGR (data collection);
- Rehabilitation of breeding and multiplication centers;
- Policy to involve ILRI-SLU champions to work with NC on implementation of GPA;
- Joint sensitization of stakeholders on GPA/AnGR activities by NC/ILRI-SLU champions;
- Conduct a survey of AnGR in the country after the war; last survey was 1979.

Ghana

- Capacity Development of MoFA staff in breeding and genetics;
- Making our breeding programs work (availability of resources to sustain breed improvement program);
- Good Livestock recording system;
- Capacity Development of Ministry staff (on AnGR);
- Development of infrastructure for livestock recording and genetic evaluation;
- Funding for conservation projects on local AnGR;
- Office, funding and staff for the National Focal Point on AnGR;
- The National Consultative Committee (NCC) should be motivated by the Ministry of Food and Agriculture to perform its functions, including to ensure that Ghana's data in DADIS is updated;
- MOFA should strengthen the existing farmer/livestock associations, form new ones where they do not exist and improve their capacities;
- MOFA should encourage livestock farmers to maintain good records.

Niger

- Renforcement de la sélection dans les centres et du croisement;
- Conservation des races menaces de disparition;
- Financement des programmes d'amélioration génétique;

- Renforcement des capacités dans le domaine des infrastructures et ressources humaines;
- Caractérisation génétique des ressources animales;
- Renforcement des capacités des ressources humaines et institutionnelles;
- Launch an Animal Breeding/Characterization program;
- Help conduct animal census;
- Need to commission a national livestock census;
- What are the mechanisms for effective collaboration between research institutes/Universities/Ministry of Agric. on AnGR?
- Need for national focal point on AnGR.

Guinée Bissau

- Création de centre de référence pour conservation préservation et amélioration des animaux;
- Renforcement institutionnelle et humain;
- Inventaire AnGR;
- Characterization AnGR.

Togo

- Renforcement des capacités: organisation des structures de gestion des ressources zoo-génétique;
- Inventaire et caractérisation des races;
- Formation des acteurs surtout les chercheurs;
- Conservation des races par la création de banques de gènes et de centres d'élevages.

Benin

- Recensement du cheptel (ethnique et quantitatif);
- Financement des activités des stations d'élevage en charges de la préservation (sauvegarde) des races locales.

Liberia

- Infrastructure Development and Human Capacity Development;
- Genetic materials (stocks);
- Characterization of livestock phenotypic data.

DRC

- Renforcement de capacités humaine: formation permanente PhD, MSc, universitaire en caractérisation des races;
- Renforcement des capacités des utilisateurs des ressources génétiques animales en matière de gestion et d'utilisation durable;
- Mis en place d'une structure nationale de gestion des ressources génétiques nationales dote de moyens pour le fonctionnement;
- Formation en génétique animale (PhD, MSc) et renforcement des capacités (techniciens, éleveurs);
- Mise en place des infrastructures pour l'amélioration des ressources génétiques animales.

Côte D'Ivoire

- To identify partners can help us to conduct a study to inventory, to cartography and evaluate our national AnGR;
- To show (through research) that imported breeds not more productive than local breeds which strongly adapted to local environment. Thereby local breed are more rentable in breeding than imported breed. Then the necessity to build local breed breeding program;
- Identify a scientific (from national research institute or universities) national coordinator for AnGR management;
- Définition de cadre règlementaire de gestion des ressources génétiques;
- Politique de bonne gouvernance en gestion des ressources génétiques animales;
- Inventaire et characterization;
- Etablissement de plans d'amélioration génétique;
- Inventaire et caractérisation des RGA;
- Appui ou développement des RGA (renforcement de capacités and infrastructure et Equipement);

Guinea Equatorial

- Appui Technique de la FAO au Bureau National en Guinée Equatoriale;
- Formation de techniciens et matériel en ressources zoo-génétiques animal – coordination national.

Congo Brazzaville

- Conservations des ressources génétiques animales (RGa).

The Gambia

- Mechanism to improve data acquisition and storing put in place;
- Focus on improvement and ICTs open course breeding program;
- Strengthening of the multiplier associations (GILMA for example);
- Production of more superior elite breeding ruminant males for dissemination to livestock farmers;
- Farm production and reproductive parameters recorded, analyzed, and feedback to farmers, policy makers, extension, education, and research;
- Build the human capacity in the areas of livestock GR development;
- Develop the management of policy strategies for the development of the livestock sector.

Mali

- Recensement general du cheptel;
- Caractérisation des races locales (RGa).
- Malian priority issues udapte are:
- Carry out livestock census, inclusive of all species/breed
- Phenotypic and molecular characterization of AnGR
- Institutional capacity development of farmer organizations
- Institutional capacity development of the national point focal
- Capacity development of national coordinator
- Launch of trained animal geneticists

CORAF/WECARD

- Besoins en ressources nécessaires pour la facilitation et la mise en œuvre des projets d'amélioration en AGR en Afrique de l'ouest et du centre.

Take home messages and closure

The take away messages were based on answers to some key questions:

1. Where can I get information and assistance?
2. Where can I publish a paper?
3. Where can I request publications?
4. Where can exchange experiences?
5. Deadlines for national reporting
6. How could you represent your country!
 - 8th Session of the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture in Rome, Italy - 26-28 November 2014
 - Discuss draft version of *The Second Report on the State of the World's Animal Genetic Resources for Food and Agriculture*
 - Advise on updating the Global Plan of Action
 - 15th Session of the Commission on Genetic Resources for Food and Agriculture Rome, Italy - 19-23 January 2015
 - Endorse *The Second Report on the State of the World's Animal Genetic Resources for Food and Agriculture*
 - Decision on updating the Global Plan of Action

Insights from the workshop

The overall workshop findings have been derived from the presentations and discussions during the workshop. The overall workshop findings were:

- Most of the countries in West and Central Africa have national initiatives on AnGR and reported on future activities
- The conservation and sustainable utilization of certain trans-boundary breeds such as Djallonke sheep, African dwarf pig, N'Dama cattle, among others, was highlighted
- National Coordinators were reminded of the requirements to upload data on DAD-IS
- The deadlines for the Member States obligations on various FAO activities were stressed
- The implementation of the Global Plan of Action for Animal Genetic Resources in the West and Central Africa region has been slow and that the characterization of many of the region's breeds is incomplete
- The valorization and market-access strategies would help the region better respond to the erosion of AnGR
- The main regional priorities should improve the management of the trans-boundary breed and their conservation; and
- Finally, financial and political supports, as well as awareness of the roles of Animal Genetic Resources, were identified as prerequisites for addressing these issues.

General conclusion

The launching of the workshop, held in Ouagadougou can be described as very informative one and very interesting both for the organizing team and for the participants from the countries concerned by the project. The workshop was able to gather National Coordinators, Organization involved in the field of animal production, animal genetic resources, thus allowed convergences of conflicting and complementary opinions.

During the workshop, extensive work has been undertaken to strategies for proper implementation of project activities. The participants made a significant contribution to the methodology and to the project management, including comments and suggestions to guide and improve the project design and implementation. There were both sharing of knowledge and experiences within the groups. Consequently, several key ideas were developed during the discussions and new elements for thought have emerged. Moreover, the issues discussed have covered different aspects and various issues relating to animal genetic resources management. The workshop participants appreciated the very positive contribution of partners and expressed profound thanks to AU-IBAR for having organized the workshop. The meeting was closed by Dr Nouala. He thanked the participants for their active and constructive debate before wishing everyone a safe trip back home.

Annex 1: The Agenda

Regional workshops on Animal Genetic Resources in Sub-Saharan Africa: ILRI–SLU Capacity building Project in collaboration with FAO, AU/IBAR & TEAM Africa: November 2013

Day 3: Thursday			
<i>Breeding and Conservation programs, continued</i>			
8:30-10:30	Group work 4	Breeding and Conservation programs <ul style="list-style-type: none"> • Mapping national and regional initiatives • status of implementations (nationally and regionally) • Global Plan of Action initiatives • Opportunities for enhanced regional collaboration in development of breeding programs with present resources 	
10:30-11:00	Coffee Break		
11:00-11:30	Plenary	Feedback from group work 4	
<i>Developments and research on breeding programs</i>			
11:30-12:15	Group work 5	Prioritized issues for developments in AnGR	
12:15-12:45	Plenary	Feedback from group work 5	
12:45– 14:00	Lunch		
	<i>Resource mobilization for research on animal breeding programs</i> <i>Developing concept notes—what could be done with present resources? What else would be needed?</i>		<i>AU-IBAR/ FAO- NC's SoW</i>
14:00-15:00	Groups/ Plenary	Discussions/Conclusions	<i>Update of the implementation of the GPA : report of the ITWG, financing the GPA etc</i> introduction & discussions
15:00–15:30	Coffee Break		
15:30–17:00	<i>Joint session – Ways forward in conclusion</i> <i>Outputs & Outcomes</i>		
19:00-	<i>Joint Dinner</i>		
Day 4: Friday FAO / AU-IBAR			
8:30-13:00	Plenary	SoW: Introductions and guide to the preparation of the 2 nd report	FAO- NC's Reports etc.
13:00-14:00	Lunch		
14:00-16:00	Plenary: Guide to the update of the inventories		
16:00-16:30	Coffee Break		
16:30-17:30	<i>Ways forward in conclusion</i> <i>Outputs & Outcomes</i>		

Annex 2: Group Works



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**CGIAR –
International Livestock Institute (ILRI)**

Country Group Work Burkina Faso – November 2013 – Summary of countries' own presentations

- Mapping national and regional initiatives on Breeding and Conservation programs
- Status of implementations (nationally and regionally)
- Global Plan of Action initiatives
- Opportunities for enhanced regional collaboration in development of breeding programs with present resources

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GHANA

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Mapping national and regional initiatives

- Livestock Development Project
- Characterisation studies on various AnGR
- Project of Dairy Development

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Global Plan of Action initiatives

- Characterisation studies
 - Local chickens – phenotypic and genetic characterisation done
 - Guinea fowls – on-going
 - Djallonke sheep – on-going
 - West African Dwarf Goats – on-going
 - Cattle and pigs – little work done
 - Grasscutters – on-going
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-

Global Plan of Action initiatives

Dairy Development Project

- Delphe project – problem identification and analysis; identification of the right phenotype for milk production
- Edulink project – strengthen capacity of higher education; increasing milk production for poverty alleviation
- Heifer International – increasing milk production to reduce poverty of farmers

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Global Plan of Action initiatives

- NCC reactivated - 2 meetings held and work on National Action Plan ongoing;
- National nucleus breeding stations exist for Djallonke sheep, West African Dwarf goats, Ashanti Black Pigs, Shorthorn cattle
- Unfortunately little breeding work on-going due to lack of qualified personnel and inadequate funds for running the farm
- Conservation mainly in-situ or ex-situ in vivo; little capacity for cryopreservation

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Global Plan of Action initiatives

Capacity Building:

- Training of students and lecturers
- Little training for staff of the Ministry in AnGR-related issues
- Collaboration between institutions
- University of Ghana – one Biotechnology laboratory; one molecular genetics laboratory
- Animal Research Institute – molecular biology laboratory

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Opportunities for enhanced regional collaboration in development of breeding programs with present resources

Member of Sub-Regional Focal Point on AnGR for West and Central Africa

Joint project on conservation and sustainable use of:

- Djallonke sheep
- Ashanti Dwarf pig
- Ndama cattle
- Local chickens
- Grasscutters
- Educational exchange programme to build up capacity of students and lecturers in AnGR work
- Setting up of a sub-regional gene bank

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Nigeria

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National initiatives

Status

- Characterization and monitoring of trends-
 - Cattle, sheep, goat, chicken, guinea fowl have been characterized (phenotypic and molecular)
 - Not much on pigs, ducks, turkey camel, donkey, horses.
 - Livestock census overdue (1992 RIMs)
 - 17 livestock breeding centres
- Conservation and breeding-
 - Muturu conservation project approved for funded by FAO under GPA-FS
 - 3 research institutes with different L/stock species

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Initiatives

Status

- Human capital development
 - Universities and research centres providing training of graduate and post graduate students.
 - Training of ministry employees and farmers to be encouraged.
 - Nigeria govt supports GPA as a signatory to the treaty
- Policy and cooperation

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Regional initiatives

- Proposed research on conservation and improvement of Djallonke sheep by Nigeria, Ghana, Cote D'voire, S/leone, Senegal and Burkian Faso
- On going
- Harmonizing teaching of animal genetics and breeding (agb) in the west african sub-region
- On going

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OPPORTUNITIES

- Discussion on indigenous livestock exchange btw Nig and Cameroon, Ghana , Togo
- Regional collaboration on breeding of transborder breeds
- Nigeria is open to discussion on joint livestock exhibition among countries in W/Africa under West Africa Society of Animal Production (WASAP)

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Sierra Leone

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Mapping national and regional initiatives

- Meat and milk value chain study conducted in 2010 by NaCSA in collaboration with GIZ
- Dual purpose goat development project funded by DFID and implemented by NU (2009) and SLARI (2013)
- Dual purpose cattle development project sponsored by IAEA implemented by NU/SLARI/MAFFS (2012)
- Small ruminant and chicken restocking projects (MAFFS, GIZ, DFPP) (2002 to present)

Regional:

- Aquaculture project (Sierra Leone, Nigeria and Cameroon)

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Status of implementations (nationally and regionally) of Global Plan of Action Initiatives

- Country report on the State of Sierra Leone's Animal Genetic Resources , June 2005
- Participated in GPA in Switzerland – September, 2009
- Developed proposal for funding on small ruminant (WAD) breed conservation, 2011/2012 yet to be approved and funded

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Opportunities for enhanced regional collaboration in development of breeding programs with present resources

- Existence of MRU as a sub-regional block within ECOWAS
- Free movement of livestock within the region
- Common animal resources – cattle, sheep, goats and chicken
- Establishment of SLARI in 2007 responsible for research especially Teko Livestock Research Center (TLRC)

Challenges

- Near absence of animal breeding infrastructure as was destroyed during the war (Teko and Musaia Stations – require immediate rehabilitation)
- Inadequately trained veterinary and production personnel
- Lack of up to date data on livestock

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Gambia



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Mapping national and regional initiatives

Local initiative:

- ITC
- AI/Cross breeding of the N'dama and Holstein and Jersey to improve milk production in the Peri-urban area of the country
- Biogas production (using cattle dung) for local energy production
- 3 Open nucleus breeding program for ruminants
- LHDP
- focussing on the improvement of s. ruminant and poultry production and productivity



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Regional initiatives:

PROGEBE:

- Dairy improvement programs for small holders (construction of mini dairy)
- Feed resource and water management
- Improvement of livestock commercialization (slaughter slabs, weekly livestock markets)
- Capacity building (farmer and professional level)



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WAAPP (small ruminant and poultry):

- Disease control (PPR, Pasteurellosis and NCD)
- Feed resource management (Pasture and fodder development)
- Technology transfer (Networking)
- Capacity building



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Global Plan of Action initiatives

- Characterization and monitoring of trends: Not done
- Conservation and animal breeding: On-going through the ITC ONBS
- Human capacity development: 2 MSc on ABG and many farmers trained on selection and animal breeding

Policy and cooperation: Initiative taken by PROGEBE by reviewing the existing policies and legislations



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Status of implementations (nationally and regionally)

ITC:

- Cross breeding program adopted at farmer level
- Open nucleus breeding scheme on-going at research and farmer level
- Biogas adopted at women's garden's level

LHDP:

- Capacity building (farmer and extension agents): on-going
- Livestock infrastructure (s. ruminant and poultry houses): on-going

PROGEBE: Activities on-going

WAAPP: Activities on-going



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Opportunities for enhanced regional collaboration in development of breeding programs with present resources

- Existing projects with a regional dimension: PROGEBE and WAPP
- ITC: ONBS



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Burkina Faso



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Benin



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Mapping national and regional initiatives

Benin :

- Création de ferme en vue de conservation des races locales trypanotolerante (bovin: Lagune et borgou), ovin Djallonké:
- 4 fermes sont cordonnées par PAFILAV: Projet d'appui aux filière lait et viande
- Une ferme sur 4 pour l'amélioration par metissage du borgou avec race exotique bresilienne, motb, brune des alpe
- Une station pour élevage des exotique race pure (Holstein, Rouge des stepp)
- Construction de centre de production de semence animale (fonctionnel dans 3 mois)



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Senegal



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Mapping national and regional initiatives

- ISRA = Institut senegalais de recherche Agricole : mise en place de CRZ dans différentes zones agro écologique don't 2 sur les RGA :
- DAHRA= Gobra (Zebu) pour la viande
- CRZ Kolda = race trypanotolerante (N'Dama) projet regional à travers
- PROGEBE Projet régional de gestion du bétail ruminant endémique en AO
- Améliorer la productivité de bovins (ND; Djallonké ovin caprin), amelioration animale
- Programme d'amélioration génétique en cours sur les bovin et cheval
- Existence d'un cadre réglementaire sur l'utilisation des RGA



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Congo

Mapping national and regional initiatives

- Centres d'appui technique :bovin ovin porcin et avicole
- programme d'amélioration génétique par croisement des races trypanotolérantes (N'Dama et Lagune) x races exotiques (senepol, Nellore, Girolande)
- Programme d'amélioration génétique impliquant l'acclimatation et production des races laitières
- Programme de métissage des porc domestique x sauvage (sangliers)
- Programme de domestication des aullacode, Antiloppe, Crocodile, Pintade

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Côte d'Ivoire

Mapping national and regional initiatives

- PROGIRS = Projet de gestion intégré de Ranch et Station d'élevage (Rannch de la Marahoué (race N'Dama) Station laitière Yamoussoukro, Station semencière de Yamoussoukro et Station ovin de Toumodi (Dallonké ovin et caprin)
- But :Zootechnique , amélioration génétique et conservation
- SIVAC =Société ivoirienne d'abattage et de charcuterie)
- Programme d'amélioration génétique par absorption de landrace, large white et piétrin
- Volaille
- PAPAN : programme d'amélioration de la productivité avicole national

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Mapping national and regional initiatives

Programme de conservation des aullacode et escarcot

PAGEDR /Pisciculture

Station de production et d'amélioration de Mopoyem, Kongodekro (Tilapia)

Lahyo Station de recherche (Tilapia silure et machoiron, Jacquville: station d'amélioration des géniteurs et production de Machoiron et silure

Amélioration des performance et distribution des géniteur

PADECI= programme d'installation des éleveur

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Guinée Bissau

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Mapping national and regional initiatives

- IBAS= Gestion durable des ressources génétique des petits ruminants
- INRA= emboche des bovin, alimentation nutrition et production de lait,
- Amélioration génétique des porcins: race locale x Landrace
- Aquaculture pour la promotion de production de Tilapia financé par la FAO
- Cadre juridique pour gestion de RGAn (en cours)
- Lettre politique de développement de l'élevage et sont plan d'action



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Mapping national and regional initiatives

Contraintes

- Mécanisme d'acquisition des géniteurs
- Faible disponibilité des races dans la sous région
- Cherté des reproducteur
- Difficile accès des intrants
- Instabilité institutionnelle
- Insuffisance de compétences
- Absence de cadre réglementaires de l'utilisation des RGAn
- Insuffisance des ressources matériels et financières
- Lourdeur administrative
- Non maîtrise des pathologie animales



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Global Plan of Action initiatives

Pas d'initiative par manque de connaissance du plan global défini par la FAO
Absence de plan d'amélioration génétique des espèces animales



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Opportunities for enhanced regional collaboration in development of breeding programs with present resources

Manque de collaboration entre structure de développement de recherche au niveau national et sous regional



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Niger



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Initiatives Statut MiseEnOeuvre Contribution au programme global
Création de centre de multiplication du bétail 1931 En cours Oui
Programme national d'amélioration génétique des bovins locaux 1931
Amplification en 2000 et enrichi avec l'insémination artificielle à base semence fraîche en 2008 Oui
Recensement du cheptel 2004 Ponctuel Oui
Caractérisation phénotypique de petits ruminants (chèvre rousse et sahel) 2011 ponctuel Oui
Caractérisation kouri Imminent Oui
Comité consultatif sur l'élevage 2002 Nécessité de redynamisation
Création de banque de semence 2000 En cours
Insémination artificielle avec semence importée 2008 En cours
Centre national de spécialisation en élevage (PPAAO) 2011 En cours



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Togo

Centre d'amélioration génétique des petits ruminants 1982 Fonctionnel
 Ranchs Inconnu Nécessité de redynamisation
 Importation de géniteurs baoulé et Ndama 1956 ponctuel
 Comité consultatif Caractérisation phénotypique et de la poule locale 2013 En cours
 Recensement du cheptel 2012 Ponctuel
 Insémination avec semence importée bovine 1974 Ponctuel
 Insémination avec semence importée ovine 1992 Ponctuel Plus ou moins
 Vet Gov 2013 En cours Non
 Rapport national 2004 En cours de mise à jour Oui
 Recherche sur la race de mouton Vogan 2012 En cours

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RDC

RDC	Législation sur les ressources génétiques	2013	En cours	Oui
	Comité consultatif	2002	En cours de redynamisation	Oui
	Recensement national partiel du cheptel	2001-2002	Pensé	Oui
	Caractérisation phénotypique	200-2002	Pensé	Oui
	Programme national de vaccination des porcs	2007	En cours	Plus ou moins
	Vet Gov	2013		Plus ou moins

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Annex 3: List of participants

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