



Australian Government
Australian Centre for
International Agricultural Research



Concept Note

Regional Workshop on Underutilized Animal Genetic Resources and their Amelioration

Background and Rationale

Livestock biodiversity is important for food and livelihood security particularly in the developing countries. About 70% of the world's rural poor keeps livestock and rely on them as important component of their livelihoods. Maintaining the livestock diversity is a challenging task due to constraints – (i) lack of knowledge of characteristics of breed, geographical distribution and population size, (ii) lack of conservation framework for threatened breeds or even structured breeding programmes that could improve productivity, and (iii) policies and laws affecting the livestock sector rarely pay attention to support sustainable management of animal genetic resources for food and agriculture (hereafterwards called as AnGR)¹. Global Plan of Action (GPA) for AnGR and the Interlaken Declaration was adopted by the International Technical conference on AnGR for Food and Agriculture on September 3-7, 2007. Interlaken Declaration recognized that the existing diversity of animal species have not been used to the extent possible for increased food production, improved human nutrition and to further sustain rural communities or for more production systems. To check erosion and loss of AnGR, to achieve food security, improve human nutritional status, and enhance rural development, the efforts to conserve, develop, improve and sustainable use of AnGR should be enhanced at national, regional and global level². The Second Report of the State of the World's AnGR provides a comprehensive assessment of the livestock biodiversity and its management³. Analyses of this report and also Sub-regional reports on AnGR in South Asia⁴, on Southeast Asia⁵, progress report on the implementation of GPA for AnGR in Southwest Pacific⁶ suggested that vigorous efforts still need to be made to strengthen the main elements of sustainable management of AnGR. Priorities include – (i) improving in knowledge of characteristics of different types of AnGR and the production system, (ii) developing institutional framework of AnGR, (iii) improving awareness, education, training and research in all areas of AnGR management, (iv) expanding and diversifying the conservation programmes⁷. To achieve above, there is a need to

¹ www.fao.org/docrep/012/a1389e/a1389e.pdf

² www.fao.org/3/a-a1404e.pdf

³ www.fao.org/3/a-i4787e.pdf

⁴ www.fao.org/docrep/pdf/010/a1250e/annexes/Subregional%20Reports/Asia/SouthAsia.pdf

⁵ www.fao.org/docrep/pdf/010/a1250e/annexes/Subregional%20Reports/Asia/SouthEastAsia.pdf

⁶ www.fao.org/3/i4787e/i4787e178.pdf

⁷ www.fao.org/3/a-i4787e.pdf

strengthen global-, and regional-level activities related to the management of shared resources, capacity development through the transfer of technologies and sharing knowledge, policy framework and public awareness that facilitate the sustainable use, development and conservation of AnGR of which 70% are in developing countries⁸

The increased demand of food has changed the way AnGR are maintained and utilized. For the past centuries, managing AnGR evolved from proculture to agrotechnical to domestication phase. Domestication had revolutionized food production allowing food produced in large amounts or numbers enabling food to be trade for economic benefits instead of just feeding the community. The demand for larger quantity and higher quality of food to feed the more demanding growing nation has encouraged selection of AnGR for breeding purposes, be it using conventional or molecular approaches.

Albeit the success of domestication and selection of AnGR for food production, problems emerge when faced with current challenges such as climate change, natural disasters and pest and disease. The more homogeneous population of domesticated animals make it more vulnerable to these challenges and herds or groups can be easily wiped out when struck with an epidemic, jeopardizing the food security of the region. The underutilized AnGR is an important source of genetic pool that can help in improving the available genetic breeds utilized for food production. However, not much information is known on these animals in the Asia-Pacific Region. Hence, there is a need in understanding status and nature in this region to enable strategic planning of its sustainable utilization and conservation for better food security in future.

Objectives

- a. To assess the current status of underutilized AnGR at sub-regional level and to assess R&D status of priority native breeds that are needed to promote the use of underutilized AnGR in Asia-Pacific
- b. To discuss the knowledge gaps and way forward in defining regional priorities concerning AnGR and create awareness on the role and value of underutilized AnGR that have potential for diversification of food basket.
- c. To formulate strategies to increase awareness, strengthening the institutional framework for AnGR management, and legal and policy framework to promote sustainable utilization of underutilized AnGR

Expected outcomes

- a. The Regional Workshop will provide a platform for sharing experiences/knowledge relating to underutilized AnGR of Asia-Pacific that have food and nutritional value.
- b. Assessing the importance of most potential AnGR, status of their R&D for exploring the possibilities of their commercial use and eventual benefit to smallholder farmers.
- c. Developing a Road Map to ensure efficient management including conservation and sustainable use of underutilized AnGR for food and nutritional security in Asia-Pacific.

⁸ <http://agtr.ilri.cgiar.org/agtrweb/documents/library/docs/ex-brf.pdf>

- d. Exploring the possibilities of project formulation and establishing a regional network for knowledge sharing other related issues

Organizers/Collaborators

The Regional Workshop is being organized by the Asia-Pacific Association of Agricultural Research Institutions (APAARI), Malaysian Agricultural Research and Development Institute (MARDI), Asia-Pacific Consortium on Agricultural Biotechnology and Bioresources (APCoAB), Council of Agriculture (COA), Taiwan, and Australian Centre for International Agricultural Research (ACIAR) in collaboration with Department of Veterinary Services (DVS), Malaysia and Universiti Putra Malaysia (UPM), Malaysia.

Participation

Around 60-65 participants including senior officials from organizers, selected experts from NARS of member countries of APAARI, CG Centres, experts in the fields of underutilized AnGR, representatives from local (from Malaysia) universities, ministries, research institutions who are working on AnGR, including animal scientists, animal breeders, veterinarians, academicians and related government officers, donors, private sector, NGOs and farmers.

Date and Venue

January 22-24, 2018; Malaysian Agricultural Research and Development Institute (MARDI), Seminar Room, Block A, MARDI Headquarters, Persiaran MARDI-UPM, 43400 Serdang, Selangor, Malaysia