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STATUS OF PREPARATION OF GUIDELINES ON RESULTS-BASED INCENTIVE SYSTEMS SUPPORTING THE CONTINUED PROVISION OF ECOSYSTEM SERVICES

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I. INTRODUCTION

1. Livestock, their keepers and their production systems deliver a wide range of ecosystem services.¹ A market is often available to compensate livestock keepers for provisioning services, but many of the other ecosystem services are not fully recognized and valorized. Livestock keepers may therefore not be fully motivated to continue delivering such services. Because some ecosystem services are associated with local breeds or specialized production systems, provision of incentives may help to ensure both continued delivery of the services and maintenance of the local breed and its production system. However, incentives must be objective and result-based to ensure fairness.

2. With some exceptions, the livestock breeds and production systems that deliver the widest variety of ecosystem services tend to be local and locally adapted breeds kept by indigenous and local communities. The Global Plan of Action on Animal Genetic Resources (Global Plan of Action) highlights the key agro-ecosystem functions provided by animal breeds, as well as their important social, cultural and structural roles,² in addition to their role in ensuring food security and/or poverty reduction through the production of meat, milk, eggs, fibre and other edible and/or marketable goods. Strategic Priority 6 of the Global Plan of Action is “Support indigenous and local production systems and associated knowledge systems of importance to the maintenance and sustainable use of animal genetic resources”.

3. Action 4 of this Strategic Priority is “Promote the development of niche markets for products derived from indigenous and local species and breeds, and strengthen processes to add value to their primary products”. FAO has prepared *Revised draft guidelines on developing sustainable value chains for small-scale livestock producers*,³ which when applied can facilitate the maintenance in continuous use of specific breeds through improved market access.

4. Action 1 of Strategic Priority 6 of the Global Plan of Action is “Assess the value and importance of indigenous and local production systems, and identify trends and drivers of change that may affect the genetic base, and the resilience and sustainability of the production system”. The Commission on Genetic Resources for Food and Agriculture (Commission), at its Sixteenth Regular Session,⁴ requested FAO and invited countries to continue raising awareness of the important roles of livestock producers and of livestock species and breeds in the provision of ecosystem services. It requested FAO to review methods for identification and valuation of the ecosystem services provided by livestock breeds (ESS review).

5. The draft ESS Review was presented to the Intergovernmental Technical Working on Animal Genetic Resources for Food and Agriculture (Working Group) at its Tenth Regular Session.⁵ The Working Group took note of the draft ESS Review, but recommended revision and the addition of material, including concrete examples that broaden the scope of the document to cover all continents and livestock production systems, socio-ecological systems and categories of breeds and address the question of how to scale up data collection from local to national level. It requested the Secretariat to revise the document accordingly, for consideration by the Commission⁶. The revised draft is available in document *Review of methods for identification and valuation of the ecosystem services provided by livestock breeds*.⁷

6. Action 2 of Strategic Priority 6 of the Global Plan of Action is “Support indigenous and local livestock systems of importance to animal genetic resources, including through the removal of factors contributing to genetic erosion. Support may include [...] the recognition of cultural practices and values...”. The Commission at its Sixteenth Regular Session encouraged countries to investigate the feasibility of results-based incentive systems supporting the continued provision of ecosystem services, with special consideration to locally adapted breeds, in compliance with international trade

¹ BACKGROUND STUDY PAPER NO. 66 REV.1

² <http://www.fao.org/3/a-a1404e.pdf>, paragraph 10.

³ CGRFA-17/19/11.2/Inf.5.

⁴ CGRFA-16/17/Report/Rev.1, paragraph 47.

⁵ CGRFA/WG-AnGR-10/18/Inf.5.

⁶ CGRFA-17/19/11.1 paragraph 10.

⁷ CGRFA-17/19/11.2/Inf.1.

regulations, and called on FAO to develop guidelines in this regard.⁸ Such guidelines would complement the value chain guidelines in advising countries to address Strategic Priority 6. The present document summarizes the activities undertaken since the Sixteenth Regular Session in preparation of Guidelines on results-based incentive systems supporting the continued provision of ecosystem services by animal genetic resources (ESS guidelines) and proposed actions for the future.

II. ACTIVITIES UNDERTAKEN IN PREPARATION OF GUIDELINES

7. As a first step in preparation of the ESS guidelines, the FAO Global Focal Point for the Management of Animal Genetic Resources and Secretariat of the Working Group created an informal interdepartmental task force of FAO staff with knowledge and interest in the ecosystem services provided by livestock species and breeds and their production systems. The task force includes staff of the Animal Production and Genetics Unit and the Livestock Policy Branch of the Animal Production and Health Division of the Agriculture and Consumer Protection Department, in addition to staff from the Land and Water Division and the Commission Secretariat, both of which form part of the Climate, Biodiversity, Land and Water Department. In parallel, the Secretariat of the Working Group identified and commissioned the ESS Review.

8. An initial outline for the ESS guidelines was revised by the task force. The outline was then revised a second time in consultation with the authors of the ESS Review, taking into consideration the complementarity between the two documents. The content of the ESS Review is foreseen to serve as the foundation for Sections 2, 3 and 4 of the proposed ESS guidelines, but these sections would be enhanced and augmented with systematic instructions and demonstrative examples in applying the most relevant valuation methods. The current version of the outline for the guidelines is shown in Table 1.

III. NEXT STEPS IN PREPARATION OF GUIDELINES

9. Conditional upon the availability of staff at the Secretariat of the Working Group and of extra budgetary support, it is foreseen that a draft version of the guidelines will be presented for consideration by the next session of the Working Group. As an initial step, authors for sections 5, 6, and 7 will be identified. A strategy meeting will then be convened of all authors and the FAO task force. The objectives of the meeting will be to review and finalize the outline, including the structure within sections, and assign writing and analysis tasks. While the main focus of the guidelines is on the improved provision of ecosystem services, the agro-ecosystem, landscape or type of actions and incentives to be applied will be considered. Approaches for information gathering will be discussed and agreed upon. The ESS Review has relied primarily on scientific literature, but this information source is not likely to be sufficiently comprehensive with regard to the range of incentive measures currently being applied in support of agro-ecosystems throughout the world. Additional options for gathering information include country and stakeholder surveys, review of analyses undertaken by intergovernmental and non-governmental organizations, new analyses or a combination of approaches.

10. Several months will then be allowed for the authors to prepare their sections of the ESS Guidelines, after which a second meeting will be convened to review the content of the various sections and finalize the draft. The draft will be first submitted for public review over the Domestic Animal Diversity Network (DAD-Net) and revised accordingly. Next, the revised draft will be subject to peer review through the editorial process of FAO's Animal Production and Health Division. The peer-reviewed version will be provided to the Working Group as an information document.

⁸ CGRFA-16/17/Report/Rev.1, paragraph 48.

Table 1: Draft outline for proposed guidelines on results-based incentive systems supporting the continued provision of ecosystem services by animal genetic resources

- 1) Introduction, background and user guidance
- 2) The ecosystem services framework
 - a. Ecosystem functions, ecosystem services and human well-being
 - b. Application of the ecosystem services framework to livestock production and livestock breeds: the socio-agroecosystem approach
- 3) Identification of ecosystem services provided by animal genetic resources and their production systems
 - a. Provisioning services
 - b. Regulating services
 - c. Cultural services
 - d. Biodiversity
 - e. Delivery of multiple ecosystem services
- 4) Valuation of ecosystem services provided by animal genetic resources
 - a. General overview of valuation of ecosystem services
 - b. Specific methods for various types of services
 - i. Biophysical methods
 - ii. Socio-cultural methods
 - iii. Economic methods
 - iv. Mapping and spatial analysis
 - v. Livestock genetic diversity
 - vi. Combining valuation methods and upscaling approaches
 - vii. Evaluation of synergies and trade-offs
- 5) Incentives for maintenance of ecosystem services provided by livestock
 - a. General overview of incentive measures and international trade regulations
 - b. Details and examples pertaining to specific types of services
 - i. Provisioning services
 - ii. Regulating services
 - iii. Cultural services
 - iv. Biodiversity
 - v. Livestock genetic diversity
- 6) Creating an enabling environment