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Improving the Livelihoods of Poor Livestock-Keepers through Community-Based Management of Indigenous Farm Animal Genetic Resources in Africa

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Abstract

More than 70% of poor rural farmers and pastoralists in Africa depend on livestock to secure part of their livelihoods. The contribution of livestock to agricultural GDP reaches 80% in some Sub-Saharan African countries. The demand for livestock products in Africa is expected to rapidly increase over the coming decades, and poor livestock-keepers and their indigenous breeds have the potential to play a prominent role in meeting such demand. The loss of genetic diversity reduces opportunities to improve food security, reduce poverty and shift towards sustainable agricultural practices. It is argued in this paper that the community-based management (CBM) of existing animal genetic diversity in developing countries can support the improvement of the livelihoods of poor livestock keepers while also ensuring the conservation of the genetic resources. The paper presents highlights of the structure and progress of a broad collaborative and participatory research project, which seeks to overcome past failures in the genetic improvement of animal genetic resources (AnGR) by developing a framework to fully engage communities and test preferred solutions in the *in-situ* management of these resources, an approach consistent with the Convention on Biological Diversity. This interdisciplinary project combines novel approaches to implement CBM, including, inter alia: participatory documentation of livestock breeds and indigenous knowledge to mobilise community resources; characterisation of livestock genetic resources in the systems context; economic valuation of the traits preferred by indigenous livestock keepers and participatory livelihood contribution assessments for evaluating the impact of livestock development interventions. It also tests alternative institutional arrangements in the management of AnGR. The project is being implemented in Benin, Ethiopia and Kenya. In Kenya the project works with the Gabra pastoral communities on indigenous sheep and goats. In Ethiopia the focus is on Horro cattle in a sedentary highland crop-livestock production system. In Benin, the project works on indigenous small ruminants and chicken with smallholder mixed crop-livestock farmers in warm and humid climatic

zones. Population density is high and access to market and veterinary services is limited. The lessons learned under these diverse production environments will ensure its broad applicability in developing countries.

Keywords: Africa, community-based management, conservation, indigenous animal genetic resources, livelihoods