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Economics of AnGR Conservation and Sustainable Use — Importance and Application

ADAM DRUCKER

International Livestock Research Institute (ILRI), Ethiopia

Abstract

Animal genetic resource (AnGR) diversity contributes in many ways to human survival and well-being. However, 32 % of livestock breeds are threatened. Such an irreversible loss of genetic diversity reduces opportunities to improve food security, reduce poverty and shift towards sustainable agricultural practices.

The large number of AnGR at risk in developing countries, together with the limited financial resources available for conservation, means that economic analysis can play an important role in ensuring an appropriate focus for conservation efforts. In this regard, important tasks include, inter alia: 1) determining the economic contribution that AnGR make to various societies; 2) supporting the assessment of priorities through the identification of cost-effective measures that might be taken to conserve domestic animal diversity; and 3) assist in the design of economic incentives and institutional arrangements for the promotion of AnGR conservation by individual farmers or communities.

Nevertheless, despite the importance of the economics of AnGR conservation and sustainable use, the subject has only recently begun to receive attention, despite the existence of a conceptual framework for the valuation of biodiversity in general.

Having described the theoretical background, this paper briefly discusses the potential methodologies, data requirements and difficulties confronted in carrying out such studies. The paper then concludes by analysing the results of a range of economics of AnGR studies recently carried out in Africa, Latin America and Europe.

These studies reveal that not only are there a range of methodologies that can be used to value farmer breed/trait preferences, but that they can in fact be of use in designing policies that counter the present trend towards marginalisation of indigenous breeds. In particular, it becomes possible to, inter alia: recognise the importance livestock keepers place on adaptive traits and non-income functions, and the need to consider these in breeding programme design; identify those breeds that are a priority for participation in cost-efficient diversity-maximising conservation programmes; and contrast the costs involved with the large benefits non-livestock keepers place on breed conservation.

The challenge is to now apply further work of this type in contexts where the results can actively benefit livestock-keepers, national researchers and policy-makers.

Keywords: Economics of AnGR conservation, sustainable use