Livestock keepers. Guardians of biodiversity

FAO Animal Production and Health Paper No. 167

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doi:10.1017/S2078633610000767

This publication describes the roles of smallholder farmers and pastoralists in the development, use and conservation of animal genetic resources and of wild biodiversity and cultural landscapes. It highlights the fact that as well as supplying many products and services directly used by humans, livestock often play important roles in the provision of agro-ecosystem services. The creation of mosaic landscapes and wildlife habitats, seed dispersal, fire prevention and nutrient cycling are among the contributions described. The importance of livestock-keeping communities in the creation and development of livestock breeds is outlined, with emphasis being given to social breeding mechanisms, indigenous knowledge, traditional breeding institutions and livestock keepers' breeding goals, breeding management and experimentation. The future prospects for livestock keepers as custodians of livestock diversity are reviewed by considering the reasons why livestock keepers give up their breeds and, conversely, the motivations and incentives that promote ongoing use. Finally, attention is given to means by which the participation of small-scale livestock keepers in the implementation of the Global Plan of Action for Animal Genetic Resources can be improved.

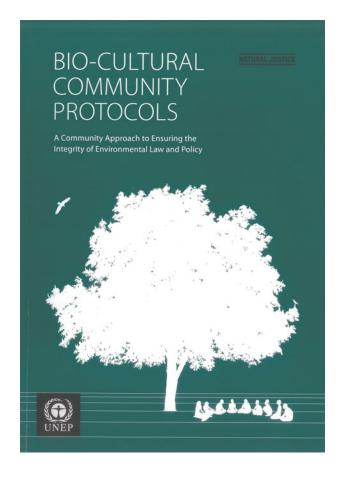


Bio-cultural community protocols. A community approach to ensuring the integrity of environmental law and policy

K. Bavikatte and H. Jonas (eds.) United Nations Environment Programme and Natural Justice Published in 2009, pp. 88 Available at http://www.unep.org/communityprotocols/PDF/ communityprotocols.pdf

doi:10.1017/S2078633610000779

This publication describes the application of bio-cultural protocols in a range of environmental legal frameworks. Part I of the book focuses on the Convention on Biological Diversity (CBD) and access and benefit sharing (ABS). Chapter 1 presents a "bio-cultural critique" of the CBD and ABS and of international environmental law in general, highlighting their perceived strengths and weaknesses from a community perspective. It is argued that while the Article 8j of the CBD presents a holistic vision of the protection of biodiversity, the Working Group on ABS has focused on facilitating commercial application of traditional knowledge and genetic resources and on affirming indigenous and local communities' intellectual property rights over their traditional knowledge and genetic resources. It is further argued that this tendency towards commoditization potentially weakens the cultural and spiritual foundations that underpin the development, sustainable use and conservation of traditional knowledge and genetic resources. Chapter 2 introduces bio-cultural protocols as a means with which communities can respond to these challenges. The process of developing bio-cultural protocols is described through the use of examples, illustrating how communities are able to use the protocols to manage their traditional knowledge and promote selfdetermined development plans. Chapter 3 illustrates how the concept of the bio-cultural protocol is gaining international recognition. Developments within the negotiations of the Working Group on ABS and a number of subsidiary meetings and workshops are described. Part II describes a number of other contexts within which biocultural protocols can be used, focusing on REDD



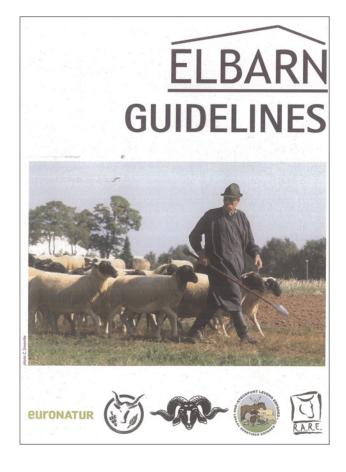
(reducing emissions from deforestation and forest degradation), the CBD's programme of work on protected areas, and payment for ecosystem services. Part III looks more broadly at the meaning of bio-cultural protocols for environmental law, tracing the emergence of "bio-cultural jurisprudence". The appendix to the book includes the bio-cultural protocol developed by Raika pastoralists in Rajasthan, India along with a short introduction to this bio-cultural protocol describing its significance for livelihoods and biodiversity.

ELBARN guidelines

European Livestock Breeds Ark and Rescue Net Published in 2009, pp. 30 Available at http://www.elbarn.org/elbarn/Project/ ThemesGuidelines/tabid/100/Default.aspx

doi:10.1017/S2078633610000780

This publication brings together guidelines prepared by the European Livestock Breeds Ark and Rescue Net covering resue actions in the event of disease outbreaks, characterization of ark and rescue centres, managing small populations of domestic animals, and marketing strategies for ark and rescue centres.



An exploration of monitoring and modelling agrobiodiversity. From indicator development towards modelling biodiversity in agricultural systems on the sub-specific level

CGN Report 2009/13

J. Buiteveld, M.G.P. van Veller, S.J. Hiemstra, B. ten Brink &

T. Tekelenburg

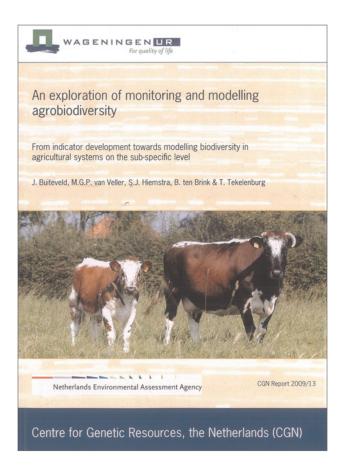
Centre for Genetic Resources, the Netherlands

Published in 2009, pp. 52

Available at http://documents.plant.wur.nl/cgn/literature/reports/ CGN Report monitoring and modelling.pdf

doi:10.1017/S2078633610000792

This report describes a study "Genetic indicators for the GLOBIO model" undertaken as part of the project "Widening the analytical scope of GLOBIO3 - modelling global biodiversity". The work focuses on the development of key biodiversity indicators for crops and livestock in agriculture with the ultimate objective of using these indicators for modelling global trends in agricultural biodiversity. Potential indicators proposed in the literature are reviewed and criteria for the selection of indicators are discussed. Two case studies in which various indicators are tested using data from the Netherlands and Germany are described. A conceptual framework for intraspecific agrobiodiversity describing factors driving changes in genetic diversity is proposed. This is followed by the results of a literature review undertaken in order to determine whether the level of genetic diversity can be understood as a resultant of the factors described in the conceptual framework. It focuses on major global



drivers of change and shows which factors determine the level of diversity managed on farm. Finally, some suggestions are offered regarding further research needs in the field of modelling agrobiodiversity.

Management and exchange of animal genetic resources – Nordic perspective

A. Mäki-Tanila, A.M. Walløe Tvedt, H. Ekström & E. Fimland Tema Nord
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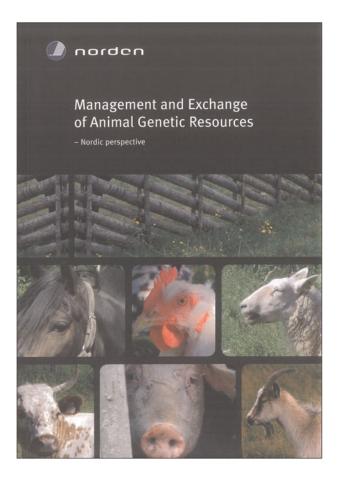
This publication is based on the project "Legal framework for the rights and exchange of animal genetic resources in the Nordic region" which was funded by the Nordic Council of Ministers and Norwegian Genetic Resource Center and Nordic Gene Bank for Farm Animals (now part of NordGen).

The book's introductory chapter provides some background on the evolution of the livestock sector and developments in animal breeding, followed by an overview of developments in international and regional legal and policy framworks relevant to animal genetic resources (AnGR) – the Convention on Biological Diversity (particularly negiotations on access and benefit sharing), harmonization of intellectual property rights regimes, European Union legislation and the work of FAO and the European Regional Focal Point for Animal Genetic Resources.

The second chapter introduces specific Nordic issues, reviewing the charactistics of the livstock and breeding sectors in the region. Attention is paid to the significance of breeding cooperatives in Nordic countries, collaboration in breeding operations and in the management of AnGR, and the good animal health status that prevails in the region. Future prospects for Nordic Red dairy cattle are also discussed.

The third chapter reviews lessons that can be learned from the crop sector, outlining the significance of the International Treaty on Plant Genetic Resources for Food and Agriculture and Plant Breeders's Rights within the UPOV (International Union for the Protection of New Varieties) system. The chapter concludes with the argument that while in the plant sector genetic resources are maintained in public gene banks, in the animal sector it is the breeding programmes that constitute the gene banks.

The fourth chapter is devoted to exploring factors that enhance the sustainability of breeding programmes.



Collaboration along the production chain, definition of breeding goals, recording schemes, the management of genetic and operative risks, and planning in the importation of genetic material are highlighted.

Moving on to discuss exchange of AnGR, the fifth chapter notes the active role of Nordic countries in international trade and discusses global patterns of exchange (prevalence of "North–South" exchanges and the significance of zoosanitary regulations). Good practices in the genetic evaluation of internationally traded genetic material and in sourcing genetic material for research purposes are discussed, along with ownership issues in the operation of *ex situ* conservation programmes.

The sixth chapter deals with patenting. Trends in patent applications in the animal breeding sector are described. This is followed by a discussion of patentability criteria and the scope of exclusive right in the breeding sector.

Preparation of national strategies and action plans for animal genetic resources

FAO Animal Production and Health Guidelines No. 2 $\,$

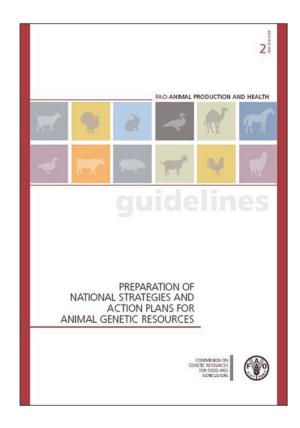
Published in 2009, pp. 70 ISBN: 978-92-5-106239-5

Available at http://www.fao.org/docrep/012/i0770e/i0770e00.htm (in English, French and Spanish; with Russian forthcoming)

doi:10.1017/S2078633610000810

These guidelines provide practical advice on the preparation of national strategies and action plans as a basis for country-level implementation of the *Global Plan of Action for Animal Genetic Resources*. A step-by-step approach is adopted covering the whole process from establishing the institutional framework for the development of the strategy and action plan to obtaining government endorsement. A number of simple planning tools are provided, along with tips on the conduct of background assessments and the organization of expert groups, and a list of "dos and don'ts" to follow when preparing a national strategy and action plan.







A short version of the action plan for the long-term sustainable management of Swedish animal genetic resources 2010–2030

Published in 2009, pp. 17 ISSN 1102-3007 Available at http://www2.jordbruksverket.se/webdav/files/SJV/trycksaker/Pdf_rapporter/ra09_15kort.pdf

doi:10.1017/S2078633610000822

Swedish Board of Agriculture

This English language publication provides a short overview of Sweden's national action plan for animal genetic resources, which sets the framework for the implementation of the Global Plan of Action for Animal Genetic Resources at national level. The structure of the nationalplan is outlined, the roles of the various actors responsible for implementing the plan are described and the 30 measures that make up the plan are listed. Detailed descriptions of several these measures are provided (Meaure 4: carrying out the genetic characterization of breeds; Measure 12: establishing breed-specific contingency plans; Measure 16: reviewing the management of animal genetic resources in risk analysis; and Measure 24: examining the rights and access to national animal genetic resources). For each of these measures, the target, purpose, current situation, activities, implementation, follow-up and time frame are set out.

