

The Legal Framework for the Management of Animal Genetic Resources

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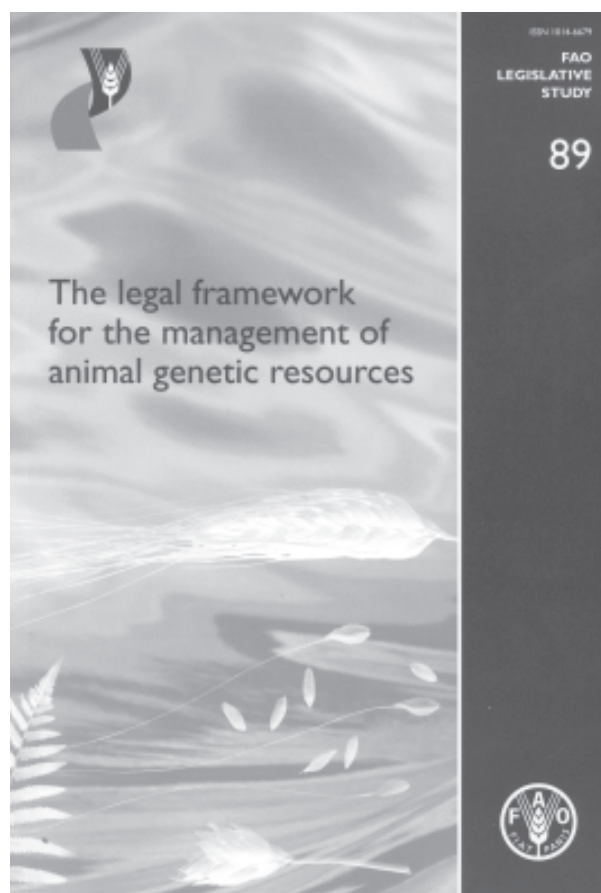
Many international meetings dealing with the development of Farm Animal Genetic Resources (FAnGR) recognized the importance of legal and policy frameworks for the sustainable management of these resources. These legal and policy frameworks are far less developed for FAnGR than in plant genetic resources mainly because of the fact that such concerns received the attention for farm animals at much later stage than for plants but also due the complexity of the subject in animals as compared to plants. This publication does well in capturing our state of knowledge and what needs to be done in the arena of legal frameworks for the management of FAnGR. The book includes six chapters and five annexes.

The Introduction gives a historical background on FAO Global Strategy for the Management of FAnGR, different aspects of biodiversity and the global status of FAnGR. The second chapter dwells in details on existing legal instruments related to FAnGR, e.g. Convention on Biological Biodiversity (CBD), World Trade Organization (WTO), Office International Epizootics (OIE), Codex Alimentaris, and Agenda 21 etc. Chapter three details relevant regional and regulatory framework of the European Union that is one of the most developed regional frameworks. Chapters 4, 5 and 6 review national frameworks and assess and policies and strategies and assess national legislation in place for different countries in the world. This information is mainly obtained from National Country State of Animal Genetic Reports submitted to FAO and from questionnaires.

Annex I provides a useful list of countries membership to international instruments

relevant to AnGR, Annex II summarizes National Legislative Framework Relevant to AnGR Management, Annex III presents the questionnaire used, Annex IV gives definitions of terms related to the management of AnGR and Annex V gives legal terminology. The book ends with a bibliography list of 41 references.

The book may be considered as a baseline of our present knowledge on the legal aspects in the management of AnGR and is a very useful reference for those working in the field of AnGR especially policy makers and legislators.



Application of Gene-Based Technologies for Improving Animal Production and Health in Developing Countries

H.P.S. Makkar & G.J. Viljoen (Eds)

Animal Production and Health Section, Joint FAO/IAEA

Springer Publisher, P.O. Box 17, 3300 AA Dordrecht, The Netherlands

Published in 2005, pp. 793

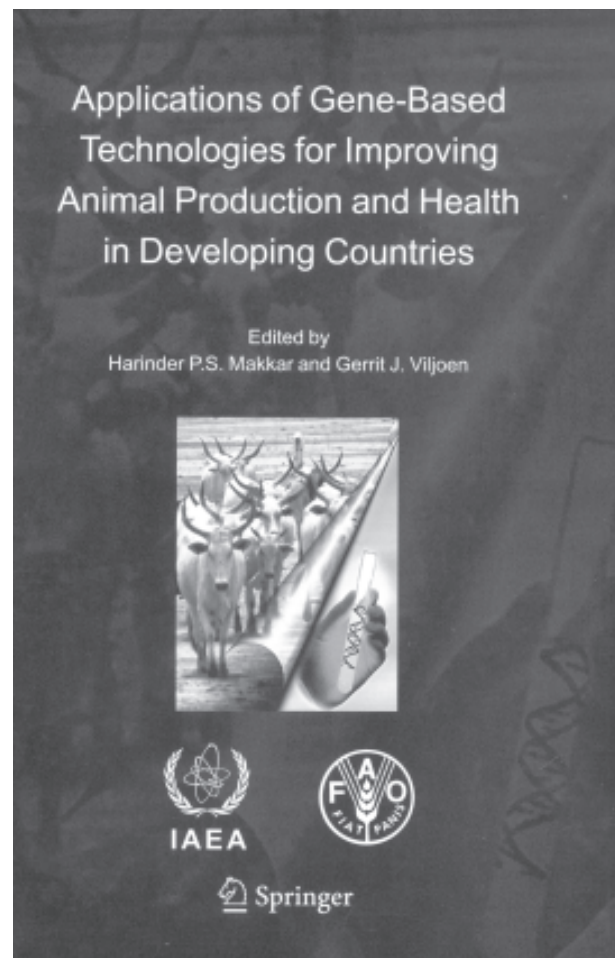
ISBN: 10 1-4020-3311-7

Modern biotechnology has potential for solving many problems associated with animal productivity and health and offers exciting opportunities for enhancing agricultural productivity. At present the focus is, however, on the issues and problems of significance for livestock producers in the developed world.

In order to fully realize the benefits of this technology in developing countries, there is a need to identify, characterize and apply appropriate gene-based technologies for these regions.

These proceedings present peer reviewed state-of-the-art papers describing the achievements in the areas of animal breeding and genetics, animal nutrition, animal health, and environment, ethics, safety, and regulatory aspects of gene-based technologies; achievements which could be realized using these modern scientific tools to maximise the benefits from the 'livestock revolution' that is taking place; and the constraints in the use of gene-based technologies and their specific research needs in developing countries.

This book will help in bridging the wide gap between developed and developing countries, in the development and use of gene-based technologies, and to elucidate the current and future roles of such technologies in the developing world. It is a good reference source for researchers, students and policy-makers alike.



Assessing Quality and Safety of Animal Feeds
Published by FAO, Animal Production and Health, Paper no. 160
FAO, Via delle Terme di Caracalla 1, 00100 Rome, Italy
Published in 2004, pp. 155
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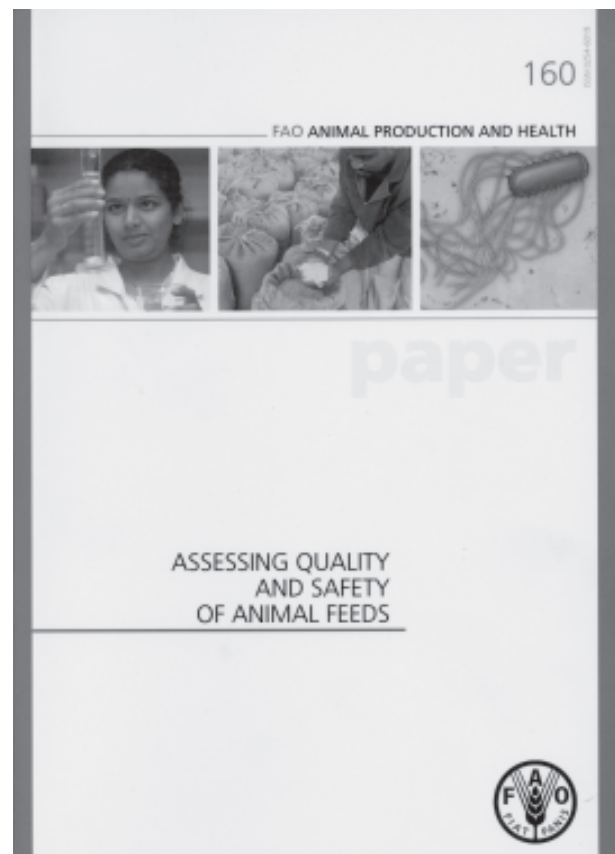
This publication provides the most recent information on the impact of animal feeds on food quality, food safety and the environment and thus improves the basis for managing such risks, which are increasingly at the centre of public and individual consumer attention.

Feed analysis provides information for farmers to optimize nutrient utilization in animal feeds; for feed compounders to prepare feed mixtures suitable for different animal production systems; for researchers to relate animal performance to feed characteristics; and for plant breeders to optimize the nutritive value of new varieties. This book brings together six reviews on these subjects from the FAO Electronic journal AGRIPPA in printed form.

1. The keynote article by Mueller-Harvey describes current procedures for feed analysis and procedures to improve standards. Standard and widely accepted methods are described together with recent developments in feed analysis. Topics covered include: sample preparation, analysis of major components and of secondary plant products (tannins, mycotoxins and other contaminants).
2. The paper by Gizzi and Givens considers the importance of quality and safety for the compound feed manufacturer, the farmer and the policy maker. Data variability also results from differences in the methodologies used to obtain the information.
3. The paper by Makkar describes the potential of the *in vitro* gas production method for evaluating nutritional quality of feed resources for ruminants. This technique enables selection of a feed or feed constituent for high efficiency of microbial protein synthesis in the rumen along with high dry matter digestibility.

4. D'Mello covers the microbiology of animal feeds, including forages, cereal grains, oilseed by-products and compound feeds. Major adverse effects arise in farm animals due to the production of mycotoxins by certain species and strains of these fungi.
5. In a second article, Dr D'Mello reviews the range of contaminants and toxins arising from anthropogenic and natural sources.
6. The final paper by Hughes and Heritage explores the developing controversy surrounding the use of antibiotics as growth promoters

Further articles will be published from time to time and can be read on-line at: www.fao.org/agrippa .



Sustainable Grazing, Nutritional Utilization and Quality of Sheep and Goat

Molina Alcaide E., H. Ben Salem K. Biala & P. Morand-Fehr (Eds)

Options Méditerranéennes Serie A: Séminaires Méditerranéens

**Proc. of the 1st Joint Seminar of the FAO-CIHEAM Sheep and Goat Nutrition
and Mountain and Mediterranean Pastures Sub-Network**

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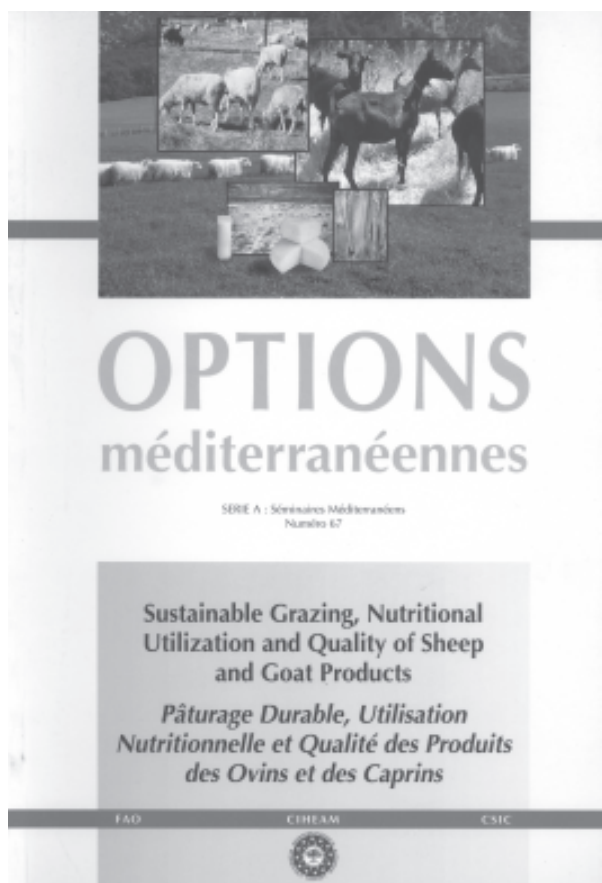
The first joint seminar of the FAO-CIHEAM Sheep and Goat Nutrition and Mountain and Mediterranean Pastures Sub-Networks, was held in Granada (Spain), from 2 to 4 October 2003 and was organised, under the auspices of the Spanish Ministry of Science and Technology, by CSIC FAO and CIHEAM.

The international coordinators of FAO-CIHEAM Networks on Sheep and Goat and on Pastures and Fodder Crops decided to combine the 10th Seminar on Sheep and Goat Nutrition with the 12th Meeting of the Sub-Networks on Mountain and Mediterranean Pastures and organized the first joint seminar.

This joint seminar focused on topics related to sustainable grazing, nutritional utilization and quality of sheep and goat products. Sessions dealt with sustainable management for quality pastures, nutritional manipulation and product quality, management of grazing animals for pastures and non-conventional foods evaluation. Furthermore, three round tables were organised to discuss the following topics: traceability of products in grazing systems, alternative methods to control pathogens in grazing animals and indicators of sustainable systems.

Ninety-six participants from 20 countries attended the seminar (Algeria, Belgium, Bulgaria, Czech Republic, Denmark, France, Greece, Israel, Italy, Mexico, Morocco, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Tunisia, UK, USA) as well as representatives or scientists from CIHEAM and FAO. A total of 70 papers were

presented and discussed, including introductory papers, oral presentations and posters, sixty-three of which have been selected to be published in these proceedings.



Time for Action. Protecting Animal Genetic Diversity for Food and Agriculture

FAO, Animal Genetic Resources Group,
Via delle Terme di Caracalla 1, 00100 Rome, Italy

Produced in five languages (Arabic, Chinese, English, French and Spanish) this brochure summarizes:

- The domestic animal diversity under siege. Thousands of farm animal breeds have been developed over millennia to thrive in specific locations. Today, many countries are losing these genetic resources, which are critical for both food security and sustainable development.

FAO estimates that industrial livestock operations are growing twice as fast as traditional mixed farming systems and six times as fast as traditional grazing systems. As a result, only a limited number of species and breeds now provides most of the world's livestock production.

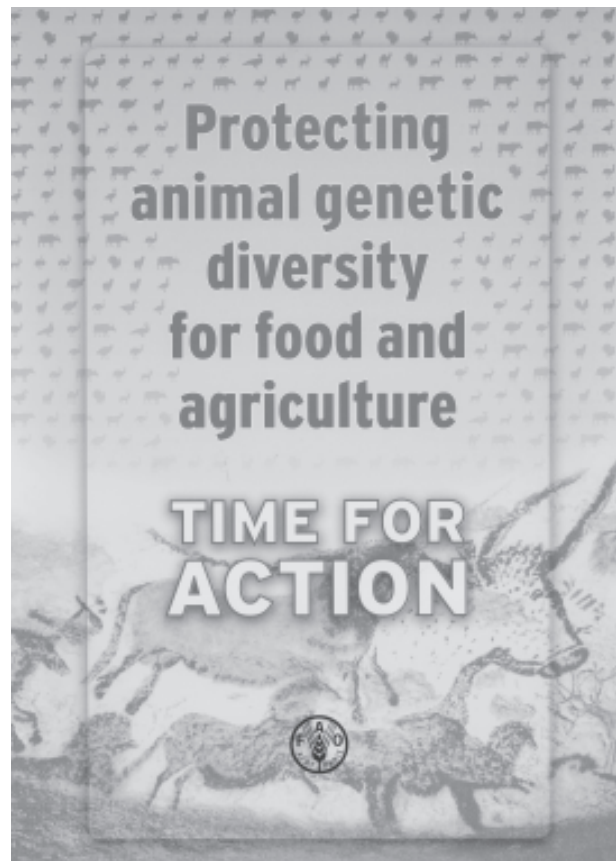
At the same time, the livestock industry is under pressure to manage animal wastes, decrease emissions from intensive livestock production and reduce the release of greenhouse gases.

- The rate of loss of animal biodiversity. Currently more than 20 percent of the breeds documented with population figures have been identified as being at risk of extinction. During the last five years 60 breeds were lost - an average of one breed per month. Many others have yet to be formally identified and may disappear before anything is known about them.
- The importance of protecting the diversity. Livestock keepers need a broad gene pool to draw upon if, they are to improve the characteristics of their animals under changing conditions. Traditional breeds, suited to local conditions, survive times of drought and distress better than exotic

breeds and, therefore, frequently offer poor farmers better protection against hunger.

Consumers in the developed world - and increasingly also in developing countries - care about product origins and production conditions. They are creating a demand for high-quality niche products including indigenous breeds raised in traditional ways.

- National priorities for action. The Report on Strategic Priorities for Action, discussed in 14 sub-regional consultations, summarizes reports prepared by individual countries.
- Action at international level



Buffalo Production and Research

A. Borghese (Ed.)

FAO Regional Office for Europe, Inter-regional Cooperative Research Network
on Buffalo

Published in 2005, pp. 315

This publication summarizes the state of the art on buffalo and the activities performed by the Network that is part of the FAO European System of Cooperative Research Networks for Agriculture (ESCORENA). ESCORENA is composed by 13 networks, six of which include other regions in addition to Europe. In 1992 FAO decided to assign some funds in order to establish a Buffalo Research Network for countries where buffalo research occupied a secondary role compared to research on cattle.

The main objective of the Network is to develop a system of cooperation among research institutions from buffalo-producing countries of Europe and the Near East with a view to providing scientific and professional support to the buffalo production sector in general, and to small subsistence farmers in particular. The Network collects and analyses data on production systems, buffalo reproduction and marketing of buffalo products, and disseminates this information through meetings, workshops and the "Buffalo Newsletter". Short to medium-term objectives include the collection of data on animal genetic diversity, reproduction and the establishment of performance recording systems.

The Group acts as a forum for the exchange of research results and as a coordinating body for research on buffalo reproduction and biotechnology. The Group has identified major issues affecting buffalo reproduction and the efficiency of buffalo

production and adopted a programme of cooperative research in the following fields:

1. Reproduction and biotechnology.
2. Farming systems.
3. Buffalo products.
4. Genetic resources.

