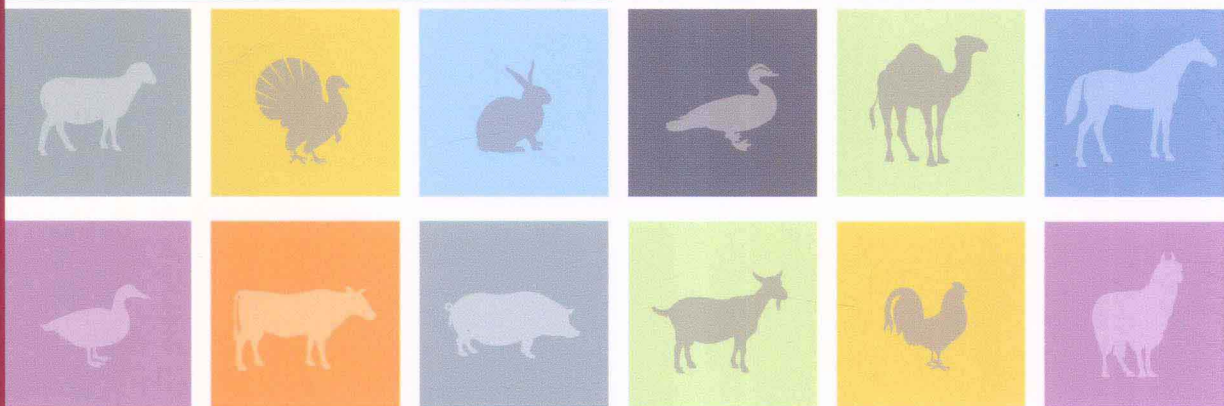


FAO ANIMAL PRODUCTION AND HEALTH



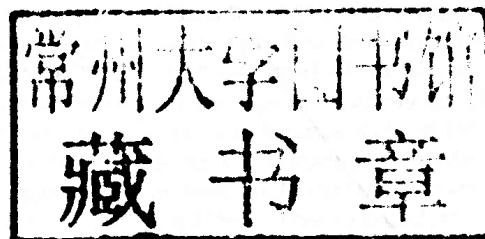
guidelines

DEVELOPING THE INSTITUTIONAL FRAMEWORK FOR THE MANAGEMENT OF ANIMAL GENETIC RESOURCES

COMMISSION ON
GENETIC RESOURCES
FOR FOOD AND
AGRICULTURE



DEVELOPING THE INSTITUTIONAL FRAMEWORK FOR THE MANAGEMENT OF ANIMAL GENETIC RESOURCES



Recommended Citation

FAO. 2011. *Developing the institutional framework for the management of animal genetic resources.* FAO Animal Production and Health Guidelines. No. 6. Rome.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views of FAO.

ISBN 978-92-5-106972-1

All rights reserved. FAO encourages reproduction and dissemination of material in this information product. Non-commercial uses will be authorized free of charge, upon request. Reproduction for resale or other commercial purposes, including educational purposes, may incur fees. Applications for permission to reproduce or disseminate FAO copyright materials, and all queries concerning rights and licences, should be addressed by e-mail to copyright@fao.org or to the Chief, Publishing Policy and Support Branch, Office of Knowledge Exchange, Research and Extension, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy.

Acknowledgements

FAO would like to acknowledge the contributions of Elzbieta Martyniuk who developed the draft version of this guideline document.

Text boxes sharing national experience were provided by:

- Teresa Agüero Teare, Chile
- Oya Akin, Turkey
- Frank Begemann, Germany
- Harvey Blackburn, United States of America
- Mamadou Diop, Senegal
- Jacques Els, Namibia
- Igor Guziev, Ukraine
- Sipke Joost Hiemstra, Netherlands
- Yusup Ibragimov, Uzbekistan
- Mohammad Ali Kamali, Islamic Republic of Iran
- Vanida Khumnirdpetch, Thailand
- Drago Kompan, Slovenia
- Catherine Marguerat-König, Switzerland
- Arthur Mariante, Brazil
- Vera Matlova, Czech Republic
- Carlos Mezzadra, Argentina
- Cleopas Okore, Kenya
- Ken Richards, Canada
- H. William Vivanco, Peru
- Hongjie Yang, China

The text boxes sharing regional experiences were provided by:

- Erling Fimland, Nordic countries
- Arthur Mariante, Latin America and the Caribbean
- Nichol Nonga, Southwest Pacific
- Dominique Planchenault, Europe
- David Steane, Asia

A draft was presented and discussed at the Sixth Session of the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture in November 2010. The guidelines were presented to and endorsed by the Commission on Genetic Resources for Food and Agriculture at its Thirteenth Regular Session in July 2011.

Abbreviations and acronyms

AnGR	Animal genetic resources for food and agriculture
APHCA	Animal Production and Health Commission for Asia and the Pacific (http://www.aphca.org)
AREEO	Research, Education and Extension Organization (Islamic Republic of Iran)
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa (http://www.asareca.org)
ASRI	Animal Science Research Institute (Islamic Republic of Iran)
AU/IBAR	African Union Interafrican Bureau for Animal Resources (http://www.au-ibar.org)
BLE	German Federal Agency for Agriculture and Food (http://www.ble.de)
CBD	Convention on Biological Diversity (http://www.cbd.int)
CGN	Centre for Genetic Resources, the Netherlands (http://www.cgn.wur.nl/UK)
CGRFA	Commission on Genetic Resources for Food and Agriculture (http://www.fao.org/nr/cgrfa/en)
CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies (http://www.ciheam.org)
CILSS	Comité Inter-États pour la Lutte contre la Sècheresse dans le Sahel (http://www.cilss.bf)
ConSDABI	Consortium for the Experimentation, Dissemination and Application of Innovative Biotechniques (Italy) (http://www.consdabi.org/home.php.htm)
COP	Conference of the Parties to the Convention on Biological Diversity
CORAF	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (http://www.coraf.org)
CTA	The Technical Centre for Agricultural and Rural Co-operation (http://www.cta.int)
DAD-IS	Domestic Animal Diversity Information System (http://www.fao.org/DAD-IS)
DAD-Net	Domestic Animal Diversity Network (http://dgroups.org/Community.aspx?c=66ada01b-ae15-4793-8552-UU32cc4b7c4061 and DAD-Net@fao.org)
DAGRIS	Domestic Animal Genetic Resources Information System (http://dagris.ilri.cgiar.org)
EAAP	European Federation of Animal Science (http://www.eaap.org)
EAAP-AGDB	European Animal Genetic Databank
EFABIS	European Farm Animal Biodiversity Information System (http://efabis.tzv.fal.de)
EM-ABG	European Master in Animal Breeding and Genetics (http://www.emabg.wur.nl/UK)
EMBRAPA	Empresa Brasileira de Pesquisa Agropecuária (Brazil) (http://www.EMBRAPA.br)

ERFP	European Regional Focal Point for Animal Genetic Resources (http://www.rfp-europe.org)
FABIS-net	An integrated network of decentralized country biodiversity and genebank databases (http://www.eaap.org/content/efabis_net.htm)
FABRE-TP	Farm Animal Breeding Technology Platform of the European Union (http://www.fabretp.info)
FAO	Food and Agriculture Organization of the United Nations (www.fao.org)
FAOAG	Federal Office for Agriculture (Switzerland) (http://www.blw.admin.ch/index.html?lang=en)
FAOSTAT	FAO statistical database (http://www.fao.org/corp/statistics/en)
FRB	La Fondation pour la recherche sur la biodiversité (France) (http://www.fondationbiodiversite.fr)
GDAR	General Directorate of Agricultural Research (Turkey) (http://www.tagem.gov.tr)
GLOBALDIV	A global view of livestock biodiversity and conservation (http://www.globaldiv.eu)
IBV	Information and Coordination Centre for Biological Diversity (Germany) (www.genres.de/en)
ICARDA	International Center for Agricultural Research in the Dry Areas (http://www.icarda.org)
IGAD	Intergovernmental Authority on Development (http://www.africa-union.org/root/au/recs/igad.htm)
ILRI	International Livestock Research Institute (http://www.ilri.org)
INIA	Instituto Nacional de Innovación Agraria (Peru) (http://www.inia.gob.pe)
INTA	Instituto Nacional de Tecnología Agropecuaria (Argentina) (http://www.inta.gov.ar/index.asp)
ISRA	Institut Sénégalais de Recherches Agricoles (Senegal) (http://www.isra.sn)
ITC	International Trypanotolerance Centre (http://www.itc.gm)
ITWG-AnGR	Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture (http://www.fao.org/ag/againfo/programmes/en/genetics/angrvent2009.html)
MoDAD	Measurement of domestic animal diversity
MYPoW	Multi-year Programme of Work of the Commission on Genetic Resources for Food and Agriculture (http://www.fao.org/nr/cgrfa/cgrfa-mypow/en)
NAGP	National Germplasm Program (United States of America) (http://www.csrees.usda.gov/nea/animals/in_focus/an_breeding_if_germplasm.html)
NAGRC & DB	National Animal Genetic Resources Centre and Databank (Uganda)
NEAG	Near East Animal Genetic Group
NGH	Nordic Gene Bank Farm Animals (http://www.nordgen.org/index.php/skand/content/view/full/62)
NGO	Non-governmental organization
NordGen	Nordic Genetic Resource Centre (http://www.nordgen.org/index.php/en/content/view/full/2)

PROGEBE	Projet regional de gestion durable du bétail ruminant endémique en Afrique de l'Ouest (http://www.progebe/net/index.php?lang=en)
RFP-LAC	Regional Focal Point for the Latin America and Caribbean Region
SACCAR	Southern African Centre for Cooperation on Agriculture Research
SADC	Southern African Development Community (http://www.sadc.int)
SBSTTA	Subsidiary Body on Technical and Technological Advice to the Convention on Biological Diversity (http://www.cbd.int/sbstta14)
SIDA	Swedish International Development Cooperation Agency (http://www.sida.se/English)
SoW-AnGR	<i>The State of the World's Animal Genetic Resources for Food and Agriculture</i> (http://www.fao.org/docrep/010/a1250e/a1250e00.htm)
SPC	Secretariat of the Pacific Community (http://www.spc.int)
SWOT	Strengths, weaknesses, opportunities, threats
TCP	Technical Cooperation Project (http://www.fao.org/tc/tcp)
TGRDEU	Central Documentation for Animal Genetic Resources (Germany) (http://tgrdeu.genres.de)
TÜBİTAK	Scientific and Technological Research Council of Turkey (http://www.tubitak.gov.tr/en/ot/10)
UEMOA	Union Economique et Monétaire Ouest Africaine (http://www.uemoa.int)
UNDP	United Nations Development Programme (http://www.undp.org)

Contents

Acknowledgements	vi
Abbreviations and acronyms	vii
Introduction	1
SECTION 1	
Background and context	3
The Global Strategy for the Management of Farm Animal Genetic Resources	7
The first report on <i>The State of the World's Animal Genetic Resources for Food and Agriculture</i>	9
From the Global Strategy to the <i>Global Plan of Action</i>	11
The <i>Global Plan of Action for Animal Genetic Resources</i>	12
SECTION 2	
The guidelines	15
SECTION 3	
The components of the global network on animal genetic resources	21
SECTION 4	
The role of the FAO Global Focal Point for Animal Genetic Resources	27
Technical assistance, standard setting and protocols	29
Global information system for animal genetic resources	30
Providing an interactive communication service	33
Building national capacity in animal genetic resources management	33
Awareness raising and promotion of animal genetic resources issues	34
Facilitating the donor and stakeholder mechanism	35
Collaborating with international bodies	36
Providing the secretariat for implementing the <i>Global Plan of Action</i>	36
SECTION 5	
Roles and responsibilities of National Focal Points	37
Host arrangements for National Focal Points	39
Activities of National Focal Points	57

The National Advisory Committee	65
Working groups and subsidiary bodies	70
Country networks on animal genetic resources	71
Assessing the performance of the National Focal Point	72
A checklist for the establishment and operation of the National Focal Point	73
SECTION 6	
Roles and responsibilities of Regional Focal Points	79
Establishment of Regional Focal Points	81
Regional Focal Points: summary of conclusions	97
A checklist for the establishment and operation of a Regional Focal Point	99
References	107

BOXES

1	Definitions	17
2	Building the Global Databank for Animal Genetic Resources – three decades of joint effort	32
3	How I became National Coordinator for Animal Genetic Resources in Switzerland	42
4	The National Focal Point in Kenya – achievements and obstacles	43
5	The National Focal Point in Turkey – how does it work?	44
6	The Centre for Genetic Resources, the Netherlands	45
7	Gene bank development and use in the United States of America	47
8	The Brazilian Platform for Genetic Resources	48
9	The Canadian Animal Genetic Resources Program	49
10	The National Focal Point in Namibia – successes and obstacles	50
11	The National Focal Point for Animal Genetic Resources in Senegal	52
12	The Ukrainian National Focal Point for Animal Genetic Resources	53
13	Early experiences of the Slovenian National Focal Point	54
14	The National Focal Point for Animal Genetic Resources in China	55
15	The National Focal Point for Animal Genetic Resources in Peru – successes and obstacles	56
16	Management of animal genetic resources in Chile	60
17	Country-based early warning and response system for animal genetic resources in Germany	62
18	Mobile facility for semen collection in the Czech Republic	64
19	The Animal Genetic Resources Programme of the Islamic Republic of Iran – organizational structure	66
20	Animal genetic resources – living in both worlds	67
21	The National Focal Point in Uzbekistan	68
22	The Animal Germplasm Network in Argentina – conservation by use	74
23	Why the Regional Focal Point in Asia was not continued	82
24	The converts' corner	85
25	Views on animal genetic resources from the Nordic region of Europe	88
26	Creating the Regional Focal Point for Animal Genetic Resources for Latin America and the Caribbean	94
27	Activities on animal genetic resources in the Southwest Pacific	96

TABLES

1	Host institutions of National Focal Points by region	41
---	--	----

FIGURES

1	The planning and implementation infrastructure for the <i>Global Plan of Action for Animal Genetic Resources</i>	24
2	Structural framework for a National Focal Point for the Management of Animal Genetic Resources	40
3	Structure of the animal genetic resources programme in the Czech Republic	57
4	The country network on animal genetic resources in Poland	58
5	Assessing the performance of the National Focal Point	73

Introduction

Following the development of the Global Strategy for the Management of Farm Animal Genetic Resources, FAO prepared *Primary guidelines for the development of national farm animal genetic resources management plans* (FAO, 1998). The primary guidelines were designed to help countries initiate the development and implementation of management programmes for their animal genetic resources for food and agriculture (AnGR). Experience gained over many years in the implementation of the Global Strategy and the subsequent adoption of an internationally agreed framework, the *Global Plan of Action for Animal Genetic Resources (Global Plan of Action)*, has provided the initiative and basis for the development of these new guidelines, the objective of which is to assist countries in their efforts to implement the *Global Plan of Action* and to develop National Strategies and Action Plans for AnGR.

The guidelines are divided into six sections:

Section 1 provides an overview of the development of FAO's AnGR programme. This section is meant for those who have become involved in the programme recently and would like a better understanding of the process that led to the adoption of the *Global Plan of Action*.

Section 2 introduces the guidelines.

Section 3 contains a general description of the global institutional framework for AnGR.

Section 4 describes the roles and responsibilities of FAO as the Global Focal Point for AnGR and in providing services to FAO member countries in the implementation of the *Global Plan of Action*.

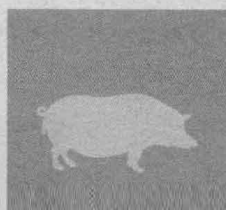
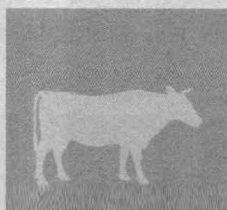
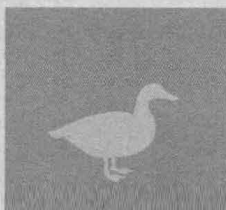
Section 5 describes national institutional frameworks and the tasks and activities of a National Focal Point.

Section 6 describes the status of development and operation of Regional Focal Points and provides advice on the process for their establishment.

The guidelines are based on experience gathered in countries and in regions since the initiation of the FAO's AnGR programme in the early 1990s. It includes personal contributions from many individuals who are or were actively involved in national and regional implementation of AnGR focal points and programmes.

SECTION 1

Background and context



Background and context

The history of the FAO programme supporting improved management of the world's AnGR is relatively short. Although FAO has been supporting countries in their efforts to conserve and characterize valuable native breeds since the early 1960s, most of the strategic planning has taken place over the past 20 years as a consequence of the recommendation by FAO's Council in 1990 that FAO develop a comprehensive programme for the sustainable management of AnGR at global level.

The key elements of the programme were proposed by a Panel of Experts that met in 1992 (FAO, 1992). In 1993, following decisions by FAO's governing bodies, the development of the Global Strategy for the Management of Farm Animal Genetic Resources, a new technical programme of FAO's Agriculture Department (now the Agriculture and Consumer Protection Department), was initiated. The Animal Production and Health Division of FAO had been designated the Global Focal Point for AnGR, and was given the role of coordinating the further development and implementation of the Global Strategy.

In 1983, FAO had established an intergovernmental forum to discuss political and technical issues related to the global management of plant genetic resources: the Commission on Plant Genetic Resources for Food and Agriculture. Growing appreciation of the importance of all genetic resources for food and agriculture led the Twenty-eighth Session of the FAO Conference, held in 1995, to adopt a resolution that broadened the mandate of the Commission to cover all aspects of agrobiodiversity of relevance to food and agriculture. AnGR were designated as the first sector to be included in the expanded scope of work of the Commission, which was renamed the Commission on Genetic Resources for Food and Agriculture (CGRFA).

FAO's commitment to addressing and combating the erosion of genetic resources for food and agriculture was a response to a growing awareness, and higher profile, of biological diversity on the agenda of the international community. Threats to biodiversity, caused by human activities and resulting in the extinction of species, destruction of ecosystems and habitats, and loss of genetic diversity within species, led to the adoption of the Convention on Biological Diversity (CBD). The Convention was opened for signature during the United Nations Conference on Environment and Development (Earth Summit) held in Rio de Janeiro in 1992. As of August 2011, 193 countries are Parties to this very important international convention (CBD, 2009a).

At the second Conference of the Parties to the CBD (COP) the special nature of agricultural biological diversity and need for distinctive solutions to address this sector were recognized (Decision II/15). The first major discussion on agricultural biodiversity took place in 1996 at the Third Meeting of the COP in Buenos Aires, where Parties to the CBD decided to develop a programme of work on agricultural biological diversity (Decision III/11). The programme was adopted at the Fifth Meeting of the COP in 2000 in Nairobi (Decision V/5).



Focus on the Programme of Work on Agricultural Biological Diversity led to the adoption of three major international initiatives: conservation and sustainable use of soil biodiversity; conservation and sustainable use pollinators; and biodiversity for food and nutrition.

FAO has played the lead role in implementing the Programme of Work on Agricultural Biological Diversity and in reporting on progress in its implementation to the COP and its Subsidiary Body on Technical and Technological Advice (SBSTTA). The last extensive review prepared by FAO as part of this collaboration with the CBD – *"The international organizations' contribution to the implementation of the Programme of Work on Agricultural Biodiversity: how far have we come?"* – was presented at SBSTTA 13 in February 2008 (CBD, 2008). Recommendations based on this review and addressing future CBD work in the area of agricultural biological diversity were adopted by Decision IX/1 and Decision IX/2 during COP 9 in May 2008 in Bonn (CBD, 2009b,c).

Another international agreement that calls for better management of AnGR is Agenda 21, which was also adopted at the Earth Summit in Rio de Janeiro in 1992¹. Chapter 14 of Agenda 21 *"Promoting sustainable agriculture and rural development"* addresses the need to increase food production and enhance food security in a sustainable way.

The Commission on Sustainable Development² is responsible for further developing and implementing Agenda 21, and has emphasized strongly the importance of promoting sustainable agriculture and rural development. It has stressed that the use and conservation of genetic resources in agriculture has to be achieved in a sustainable manner. Sustainable agriculture was also an important agenda item at the World Summit on Sustainable Development (Rio+10) held in Johannesburg in 2002.

In November 1996, the World Food Summit was held in Rome. It recognized the contribution of AnGR to food security, rural development and alleviating poverty. Under Objective 3.2(f) of the Rome Declaration (FAO, 1996), the governments of the world affirmed that they would "promote the conservation and sustainable utilization of animal genetic resources."

The Millennium Development Goals, adopted at the United Nations Millennium Summit in 2000, introduced another important challenge for the international community. During the Summit, world leaders agreed to a set of time-bound and measurable goals and targets for combating poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women. It is widely recognized that the erosion and loss of biodiversity will hamper progress towards achieving these goals. Agricultural biological diversity is not only the keystone of food security, it also provides the basis for many economic activities, especially in rural areas, and is vital to the functioning of agro-ecosystems.

At present, FAO plays the lead role within the international institutional framework addressing issues related to the management and conservation of agricultural biological diversity. At its Eleventh Regular Session in 2007, the CGRFA recommended further strengthening cooperation between FAO and the CBD, acknowledging the need for synergy, complementarity and mutual support (FAO, 2007a). It stressed the importance of

¹ <http://www.un.org/esa/dsd/agenda21/index.shtml>

² http://www.un.org/esa/dsd/csd/csd_aboutcsd.shtml



FAO's continued lead role in the implementation of the Programme of Work on Agricultural Biodiversity. It also recommended a joint work plan on biodiversity for food and agriculture between FAO and its CGRFA, and the Secretariat of the CBD, and requested that this decision be forwarded to the COP.

Also at its Eleventh Regular Session, the CGRFA adopted a Multi-year Programme of Work (MYPoW). The process of preparing the draft MYPoW was based on inputs from governments through the CGRFA's Intergovernmental Technical Working Groups on Plant and Animal Genetic Resources and consultations with regional groups. The MYPoW fully implements the mandate of the 1995 FAO Conference, which requested the CGRFA to cover "all components of biodiversity of relevance to food and agriculture". It provides an excellent basis for joint work planning by FAO and the CBD. It supports the strengthening of cooperation in the area of biodiversity for food and agriculture, both within FAO and between FAO and other international bodies. The MYPoW is based on a staged approach, setting out major outputs and milestones to be addressed over five sessions of the CGRFA (Appendix E of the Report, FAO, 2007a). The CGRFA decided to review progress in the implementation of the MYPoW at its subsequent sessions.

The MYPoW includes a preliminary outline of major issues to be addressed in the AnGR field: follow-up to the Interlaken Conference³ (Session 12); review of implementation of Interlaken outcomes (Session 14); and an update of *The State of the World's Animal Genetic Resources for Food and Agriculture* (FAO, 2007b) (Session 16).

THE GLOBAL STRATEGY FOR THE MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES

The development of the Global Strategy for the Management of Farm Animal Genetic Resources (Global Strategy) was initiated in 1993 within FAO's Animal Production and Health Division as a technical programme of work of FAO. The Global Strategy was intended to serve as a strategic framework for guiding and coordinating international efforts in the AnGR sector.

The Global Strategy established a framework for developing national, regional and global policies, strategies and actions. It also aimed to support, facilitate and coordinate the activities of various international and regional organizations that have an interest in AnGR within the broader context of sustainable agricultural and rural development. Moreover, the Global Strategy provided a much-needed forum for discussing and agreeing on policies and programmes. It also established a mechanism for global reporting on the state of AnGR.

Perhaps the most important role of the Global Strategy was to assist countries in developing and strengthening capacity to manage their AnGR in a sustainable manner. Many countries required support to plan, design and implement sound livestock policies and breeding strategies to enable sustainable development of their livestock production systems and ensure economic efficiency and cost-effectiveness over time. The Global Strategy also

³ The International Technical Conference on Animal Genetic Resources for Food and Agriculture held in Interlaken, Switzerland in September 2007, at which the *Global Plan of Action for Animal Genetic Resources* was adopted.