

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

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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
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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

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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 Animal 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)

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 of 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_aboutsd.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.



played an instrumental role in promoting the establishment and dissemination of guidance on cost-effective approaches to the conservation of AnGR using both *in situ* and *ex situ* measures. The overriding long-term objective of the Global Strategy was to ensure that the wealth of globally available AnGR would be used and developed to contribute to food security, poverty alleviation and rural development.

The Global Strategy helped to enhance awareness of the multiple roles and values of AnGR for current and future human generations. It was based on four inter-related components, each containing several elements. The major components were (FAO, 1999):

- an intergovernmental mechanism that ensured direct government involvement and continuity in policy advice and support;
- a planning and implementation infrastructure that provided an enabling framework for country action with regional and global support;
- a technical programme of work that aimed to support the effective management of AnGR at country level; and
- a reporting and evaluation component that provided the data and information required for guidance, cost-effective planning and action, and evaluation of progress.

Work within two cross-cutting areas – capacity-building and technical assistance – contributed to the implementation of all four components of the Global Strategy.

The first component, the intergovernmental mechanism, was instrumental in ensuring governmental and stakeholder involvement in the further development, implementation and monitoring of the AnGR programme at global level. Over time, this led to the evolution of the technical programme into an intergovernmental programme, one of the key focal areas of work of the CGRFA.

The CGRFA, with its membership of 171 countries plus the European Community (FAO, 2009a), is a leading component of the intergovernmental mechanism. Membership of the CGRFA is open to all FAO Members and Associate Members upon request. The work of the CGRFA is supported by in-depth consideration of various AnGR-related issues by the CGRFA's Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture (ITWG-AnGR). The preparatory work and the conduct of the CGRFA's activities are funded from FAO's Regular Programme budget resources.

The planning and implementation infrastructure component of the CGRFA's work called for the establishment of national, regional and global focal points for AnGR. This led to the establishment of the first ever global network on AnGR, which enabled coordination of country actions, and strengthened regional and global communication and support.

The technical programme of work initially focused on the preparation of national management plans for AnGR, which addressed sustainable intensification of livestock production, characterization and conservation of AnGR, and emergency plans and response mechanisms. To support the implementation of the technical programme of work at national level, FAO developed a series of technical primary and secondary guidelines.

The primary guidelines focused on the development of National Farm Animal Genetic Resources Management Plans. The secondary guidelines addressed various aspects of AnGR management such as measurement of domestic animal diversity (MoDAD); sustain-



able intensification of AnGR management, including animal recording and improvement in low- and medium-input production systems; and management of small populations at risk.

The reporting and evaluation component provided for reporting on the status of AnGR and monitoring of trends in their populations, as well as for evaluation of progress in the implementation of the Global Strategy (e.g. FAO/UNEP, 1993, 1995, 2000).

THE FIRST REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The most important initiative undertaken within the framework of the Global Strategy was the preparation of the first report on *The State of the World's Animal Genetic Resources for Food and Agriculture* (SoW-AnGR). The findings of this report now guide the further development of AnGR programmes and actions.

Following a recommendation made by the ITWG-AnGR at its First Session in 1998, the CGRFA, at its Eighth Regular Session in 1999, requested FAO to coordinate a country-driven process leading to the production of a global report that would address three major areas:

- the state of diversity: an assessment of the state of utilization, conservation and erosion of AnGR, and an analysis of the underlying causes;
- the state of country capacity to manage AnGR: including policy and legislative frameworks, management strategies and breeding programmes, institutional infrastructures, human resources, and public awareness and involvement; and
- the state of the art: methodologies and technologies available for improving the inventory, characterization, use, development and conservation of AnGR.

At its Ninth Regular Session in 2002, the CGRFA accepted FAO's outline of a country-driven process for preparing the SoW-AnGR based on the preparation of country reports. The CGRFA emphasized the need to complete the process of developing the SoW-AnGR by 2006. It also considered the possibility that the completion of the process should take place at a first international technical conference on AnGR. During its Tenth Regular Session in 2004, the CGRFA endorsed the outline of the SoW-AnGR and agreed on the timetable for its finalization.

The most critical step in the process of developing the SoW-AnGR was the preparation of country reports, which were to be policy documents addressing three strategic questions regarding the national management of AnGR:

- Where are we?
- Where do we need to be?
- How do we get to where we need to be?

Such an approach involved going far beyond simply describing the state of national AnGR. It provided an opportunity for countries strategically to plan the use, development and conservation of AnGR at national level, as well as to identify opportunities for international support and cooperation.

In March 2001, FAO invited 188 countries to submit country reports based on guidelines provided by FAO and agreed by the ITWG-AnGR (FAO, 2001). To support the preparation process, FAO invested substantial resources in subregional training and follow-up work-



shops held between July 2001 and November 2004. By 2005, 169 country reports had been prepared and submitted to FAO.

In August 2004, FAO invited 77 international organizations to submit reports on their activities in the field of AnGR management, covering areas such as research, education, training, extension, public awareness, communication and advocacy. Reports were received from four international NGOs, three intergovernmental organizations, and two research organizations⁴. The reports provided a valuable contribution to the SoW-AnGR, but also highlighted the fact that only very few international organizations were undertaking activities related to AnGR.

In addition, a number of thematic studies were commissioned by FAO as a means of addressing specific topics that would not be adequately covered in country reports but were relevant to the preparation of the SoW-AnGR. During the period 2002 to 2006, 12 thematic studies⁵ were prepared:

- *Opportunities for incorporating genetic elements into the management of farm animal diseases: policy issues;*
- *Measurement of domestic animal diversity (MoDAD) – a review of recent diversity studies;*
- *The economics of farm animal genetic resource conservation and sustainable use: why is it important and what have we learned?;*
- *Conservation strategies for animal genetic resources;*
- *Environmental effects on animal genetic resources;*
- *The legal framework for the management of animal genetic resources;*
- *The impact of disasters and emergencies on animal genetic resources;*
- *The state of development of biotechnologies as they relate to the management of animal genetic resources and their potential application in developing countries;*
- *Exchange, use and conservation of animal genetic resources: policy and regulatory options;*
- *A strategic approach for conservation and continued use of farm animal genetic resources;*
- *People and animals. Traditional livestock keepers: guardians of domestic animal;* and
- *Gene flow in animal genetic resources. A study on status, impact and trends.*

In addition to the inputs mentioned above, information was obtained from FAO's Domestic Animal Diversity Information System (DAD-IS) and statistical database (FAOSTAT).

The draft SoW-AnGR was reviewed by the ITWG-AnGR in 2006, and endorsed by the CGRFA at its Eleventh Regular Session in June 2007. The finalized report was launched at the first International Technical Conference on Animal Genetic Resources for Food and Agriculture in Interlaken, Switzerland, in September 2007 (FAO, 2007b). The SoW-AnGR provided a milestone in the development of a better understanding of AnGR, their roles and values, utilization and conservation, and the state of capacities for their management.

⁴ <ftp://ftp.fao.org/docrep/fao/010/a1250e/annexes/Reports%20from%20International%20Organizations/IntOrganisationReports.pdf>

⁵ <ftp://ftp.fao.org/docrep/fao/010/a1250e/annexes/Thematic%20Studies/ThematicStudies.pdf>



FROM THE GLOBAL STRATEGY TO THE GLOBAL PLAN OF ACTION

National priorities described in the country reports were analysed and used in the preparation of a draft report on strategic priorities for action (which addressed global and regional as well as national levels). The draft report was reviewed by means of e-mail consultations organized by FAO in late 2005. It then provided the basis for negotiations at the Fourth Session of the ITWG-AnGR in December 2006 and the Eleventh Regular Session of the CGRFA in June 2007, which led to the final negotiation and adoption of the *Global Plan of Action* at the first International Technical Conference on Animal Genetic Resources in Interlaken in September 2007 (FAO, 2007c).

The *Global Plan of Action* (FAO, 2007d) is a globally agreed programme of work in the area of AnGR management adopted by governments and the international community. It includes 23 Strategic Priorities aimed at enhancing the sustainable use and development of AnGR and combating the erosion of this valuable component of agricultural biodiversity. The implementation of the *Global Plan of Action* will promote the wise management of AnGR, thereby contributing significantly to achieving Millennium Development Goals 1 (to eradicate extreme poverty and hunger) and 7 (to ensure environmental sustainability).

The *Global Plan of Action* was adopted by 109 country delegations at the International Technical Conference on Animal Genetic Resources. Through the *Interlaken Declaration on Animal Genetic Resources*, governments participating in the Conference confirmed their common and individual responsibilities for the conservation, sustainable use and development of AnGR, with the objective of enhancing world food security, human nutritional status and rural development. They also committed themselves to facilitating access to AnGR, and ensuring the fair and equitable sharing of the benefits arising from their use.

Thus, the Global Strategy for the Management of Farm Animal Genetic Resources, originally developed as a FAO technical programme of work, led to the SoW-AnGR and to the *Global Plan of Action*, i.e. to the first global assessment of AnGR and the first government-endorsed global framework for the management of these resources. This outcome was confirmed by the FAO Conference, which at its Thirty-fourth Session in November 2007 (Resolution 12/2007) endorsed the *Global Plan of Action* and the *Interlaken Declaration*, as milestones in international efforts to promote the sustainable use, development and conservation of AnGR (FAO, 2009b). The Conference recognized the *Global Plan of Action* as a major contribution to the overall international framework on the conservation and sustainable use of agricultural biodiversity. The Conference also requested the CGRFA to oversee and assess the implementation of the *Global Plan of Action*, and report back in 2009 on steps taken in follow-up to the Interlaken Conference. The FAO Conference appealed to all FAO Members and relevant international mechanisms, funds and bodies, to ensure that due priority and attention is given to the effective allocation of predictable and agreed resources for the implementation of activities within the Strategic Priority Areas of the *Global Plan of Action*.



THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES

The *Global Plan of Action* consists of three parts (FAO, 2007d):

Part I The Rationale for the *Global Plan of Action*;

Part II Strategic Priorities for Action;

Part III Implementation and Financing.

The *Global Plan of Action* is intended as a rolling plan, with an initial time horizon of ten years. It is based on the assumption that countries are fundamentally interdependent with respect to the utilization of AnGR in the development of their livestock sectors, and that substantial international cooperation is necessary to support global food production.

The Strategic Priorities for Action are grouped within the following four Strategic Priority Areas:

- characterization, inventory and monitoring of trends and associated risks;
- sustainable use and development;
- conservation; and
- policies, institutions and capacity-building.

Each Strategic Priority Area contains a set of Strategic Priorities for Action, each of which is presented in a uniform way. A rationale provides justification for the adoption of the specific Strategic Priority for Action. A set of individual actions propose logical steps towards achieving the desired outcomes or ensuring improvements in the current situation. In total, the *Global Plan of Action* has 23 Strategic Priorities for Action (two, four, five and twelve, respectively, in the four Priority Areas listed above).

While the majority of the Strategic Priorities for Action are addressed to governments, and should be implemented at national level, some of them are meant to guide the efforts of international institutions and organizations. For instance, addressing the Strategic Priorities for Action calling for the development of standards, protocols, methods and guidelines for various AnGR management activities will involve the international scientific community. Some of the specific actions listed under the Strategic Priorities are addressed to FAO and its CGRFA, or call for the involvement of other specific institutions or constituencies.

As clearly shown in the country reports submitted during the SoW-AnGR process, the level of advancement in the management of AnGR and the state of national capacities differs greatly among countries and regions. Therefore, the relative priority or importance of each Strategic Priority for Action and associated actions within all four Strategic Priority Areas needs to be determined at the country and regional levels. Factors that influence priority setting will include the state of the AnGR themselves at breed and species levels, the production environments and husbandry systems involved, current management capacities, and the scopes and outcomes of existing AnGR programmes.

In order to assist the international community to monitor and evaluate progress in the implementation of the *Global Plan of Action* at national, regional and global levels, measurable and time-defined goals and indicators are needed. The ITWG-AnGR, at its Fifth Session in January 2009, discussed modalities for evaluating progress in the implementation of the *Global Plan of Action*. It recommended that FAO prepare a first synthesis progress report (based on country progress reports) in time for the Fourteenth Regular Session of the CGRFA in 2013, and thereafter prepare synthesis reports at four-



yearly intervals (FAO, 2009c). The ITWG-AnGR further recommended the format and content of status and trends reports on AnGR to be prepared by FAO based on data and information provided by countries through DAD-IS. It recommended that status and trends reports be made available to the CGRFA at each of its regular sessions. The CGRFA, at its Twelfth Regular Session in October 2009, adopted the recommendations of the ITWG-AnGR, thus establishing long-term modalities both for monitoring the status and trends of AnGR and for evaluating progress made by countries in the management of AnGR and implementation of the *Global Plan of Action*.



SECTION 2

The guidelines



The guidelines

These guidelines are part of the efforts undertaken by the FAO to assist countries in the establishment and operation of an institutional framework for AnGR management at national and regional levels. Successful implementation of the *Global Plan of Action* requires well-planned action, capacity-building and sharing of experiences among those engaged in the use, development and conservation of AnGR.

The establishment of a country-based institutional framework for AnGR was strongly recommended in the *Primary guidelines for development of national animal genetic resources management plans* (FAO, 1998). The primary guidelines were designed for use in identifying the main elements and objectives of a national AnGR management plan and outlining the strategic policy directions required to fulfil these objectives. The primary guidelines were aimed mainly at policy-makers, and served as an umbrella for a series of “secondary guidelines” that addressed various aspects of AnGR management in a more technically detailed manner. Over many years, the primary guidelines have assisted National Coordinators for the Management of AnGR (Box 1) to develop coherent national programmes for the sustainable use and conservation of AnGR and to establish national networks.

The replacement of the Global Strategy by the government-agreed *Global Plan of Action* has provided a new standing for AnGR programmes. These new guidelines, intended as a replacement for the primary guidelines, reflect this development. The new guidelines also reflect the extensive experience (local institutional arrangements, structure, activities, legal status, etc.) that countries have gained, since the establishment of FAO’s

BOX 1

Definitions

National Coordinator for the Management of Animal Genetic Resources: the government-nominated person who coordinates national implementation of the *Global Plan of Action for Animal Genetic Resources* and leads the development and operation of a national network on AnGR. He or she is the contact person for communication with FAO on matters relating to the implementation of the *Global Plan of Action for Animal Genetic Resources* and with global and regional AnGR networks.

National Focal Point for the Management of Animal Genetic Resources: the National Coordinator for the Management of Animal Genetic Resources and his or her support staff within the institution responsible for coordinating activities concerning the management of AnGR.



AnGR programme, in the operation of National Focal Points for AnGR (Box 1). Regional communication and coordination activities have also evolved and have led in some regions to the establishment of Regional Focal Points for AnGR, which facilitate collaborative programmes, training, research and mechanisms for sharing experiences.

The commitment and responsibility for implementing the *Global Plan of Action* clearly rests with national governments. Experience suggests that effective implementation of the broad range of activities included in the *Global Plan of Action* requires that, within each country, operational responsibility be entrusted to a National Focal Point for AnGR. Some countries have not yet established National Focal Points, which may in part explain why levels of activity vary substantially among countries. Moreover, some regions have indicated a desire to establish a Regional Focal Point but have not yet been able to achieve this goal. It is important that the experience gained during the establishment and operation of existing National and Regional Focal Points be shared with those countries and regions where focal points still need to be established.

The ITWG-AnGR, at its Fifth Session in January 2009, recommended that “the Commission request FAO to prepare a paper on the operations of existing National and Regional Focal Points for Animal Genetic Resources, with a view to share experiences on practices, approaches and activities” (FAO, 2009c). This recommendation was accepted by the CGRFA (FAO, 2009d) and these guidelines have been prepared in response to the request.

The guidelines have been prepared more than 15 years after the Global Strategy was launched; they are based on the experience gained and lessons learned in the implementation of AnGR programmes at national, regional and global levels. The major inputs in the development of the guidelines have been the information and experiences shared by National Coordinators for the Management of AnGR during various regional and global meetings and training workshops. The Global Technical Workshops for National Coordinators convened by the Global Focal Point at FAO headquarters in association with each session of the ITWG-AnGR have provided valuable opportunities for sharing the experiences of countries from all parts of the world and for discussing AnGR programmes implemented at national and regional levels. The presentations and discussions that have taken place during these meetings, the papers associated with them, and various reports and other written materials that have been made available within the network of National Coordinators have provided the basis for these guidelines. In addition, a number of National and Regional Coordinators contributed personal views on successes achieved and difficulties encountered in their work. These views are included as text boxes throughout the document. Progress reports, and other documents prepared by FAO for the meetings of the ITWG-AnGR and the CGRFA were further important sources of information.

The guidelines focus on the establishment and operation of National and Regional Focal Points and the Global Focal Point and the responsibilities of each – taking into account the commitment that governments have made to the implementation of the *Global Plan of Action*. The key target audience of the guidelines includes National Coordinators, members of national AnGR networks and policy-makers in the livestock sector. The guidelines may benefit other AnGR stakeholders by improving their understanding of the institutional framework of the global AnGR programme.



The objectives of the guidelines include:

- providing information on the development of the global AnGR programme and components of the global network, especially for people who have recently become involved in this work;
- providing information on the tasks and operation of the Global Focal Point and on opportunities to cooperate with, contribute to, and benefit from its activities;
- supporting the establishment and/or strengthening of National Focal Points and national AnGR networks; and
- supporting the establishment and/or strengthening of Regional Focal Points.



SECTION 3

The components of the global network on animal genetic resources



The components of the global network on animal genetic resources

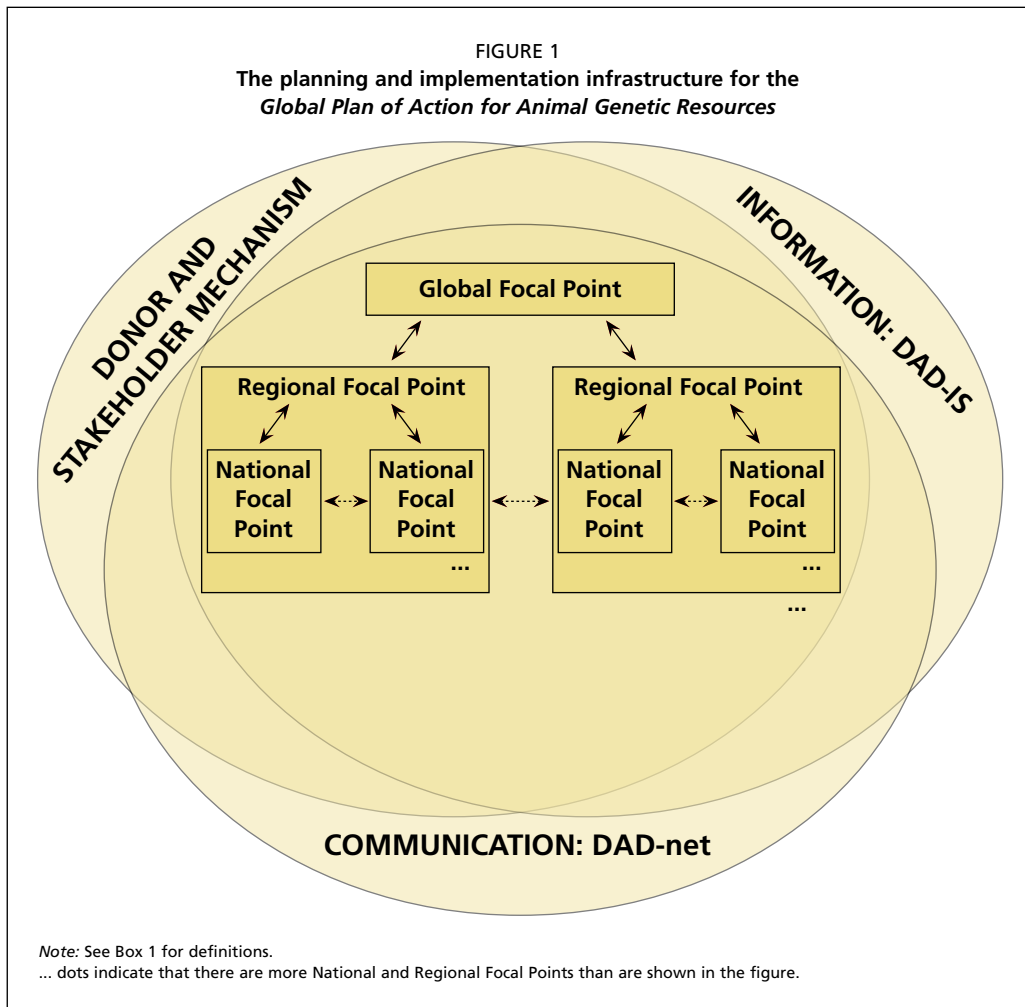
The institutional framework for implementation of the *Global Plan of Action* includes the following elements (see also Figure 1):

- **The Global Focal Point** at FAO headquarters, within the Animal Production and Health Division, provides support to countries in the implementation of the *Global Plan of Action*. It serves as the secretariat for the ITWG-AnGR and provides progress reports and technical papers in support of the CGRFA's work on AnGR.
- **Regional Focal Points** are established – when the countries within the respective regions decide to do so – as a means of facilitating regional communications, providing technical assistance and leadership in the field of AnGR management, and coordinating activities that can best be implemented at regional level or will benefit from coordination among countries within the region.
- **National Focal Points** initiate, lead, facilitate and coordinate country activities related to the implementation of National Strategies and Action Plans for AnGR, and interface with the range of AnGR stakeholders within the country. They also cooperate with the Regional Focal Point (where established) and with the Global Focal Point, to plan and develop regional and global initiatives as appropriate.
- **The donor and stakeholder involvement mechanism** mobilizes stakeholders, including donors, international organizations and non-governmental organizations (NGOs) to provide broad support for the implementation of the *Global Plan of Action*. The Global Focal Point is responsible for facilitating the involvement of stakeholders at global level in all major aspects of the *Global Plan of Action* using various means of communication. A database of funding programmes can be accessed via the web page of FAO's Animal Production and Health Division⁶. At its Twelfth Regular Session, the CGRFA adopted the **Funding Strategy for the implementation of the *Global Plan of Action*** (FAO, 2010a) and requested FAO to implement it. Recognizing the key importance of stakeholder involvement, the CGRFA requested FAO to further pursue partnerships and alliances with other international mechanisms and organizations to enhance implementation of the *Global Plan of Action* (FAO, 2009d).
- **The Domestic Animal Diversity Information System (DAD-IS)**⁷ functions as the clearing house mechanism for the *Global Plan of Action*. It is a communication

⁶ http://www.fao.org/ag/againfo/programmes/en/genetics/Funding_strategy.html

⁷ <http://www.fao.org/DAD-IS>





and information tool for AnGR management. It provides the user with searchable databases of breed-related information (including images), management tools, and a library of documents and links. It also lists the contact details of Regional and National Coordinators for the Management of AnGR. It provides countries with secure means to control the entry and updating of their national data. Over many years, DAD-IS has been developed into an advanced information and communication system.

- **The Domestic Animal Diversity Network (DAD-Net)** is an electronic discussion forum established by the Global Focal Point in 2005. It provides an informal forum for exchanging information and opinions on issues relevant to the management of AnGR. Registration is open to all and free of charge. Messages can be posted in English, French or Spanish. Topics of exchange have included inventory, characterization, performance recording, data and information management, breeding, utilization and conservation, and emergency planning and response. Information is also provided



on training and education opportunities, research and technological developments, technology transfer and other subjects relevant to AnGR management. The Global Focal Point periodically contributes information and acts as moderator. FAO has also begun providing support to the establishment of regional subnetworks. As of 2011, these are operational for Russian-speaking countries and for countries of West Africa (in French).



SECTION 4

The role of the FAO Global Focal Point for Animal Genetic Resources



The role of the FAO Global Focal Point for Animal Genetic Resources

The Global Focal Point was established within FAO's Animal Production and Health Division in order to initiate and develop the Global Strategy for the Management of Farm Animal Genetic Resources. The main tasks were to facilitate global initiatives related to AnGR management; to develop and maintain communication capacities; and to develop guidelines and other tools to support the sustainable use, development and conservation of AnGR. The Global Focal Point was also given a mandate to promote and support national and regional activities, including policy development.

The current role of the Global Focal Point focuses on assisting countries in the implementation of the *Global Plan of Action*, particularly by developing and maintaining a global information and communication structure for AnGR; overseeing preparation of technical guidelines; coordinating activity among regions; supporting the establishment of National and Regional Focal Points; identifying needs related to training, education, and technology transfer; developing programme and project proposals; and mobilizing donor resources (FAO, 2009e).

Funding for the activities of the Global Focal Point has included a combination of FAO Regular Programme Funds and extra-budgetary contributions. From the beginning, donor support has significantly enhanced the activities of the Global Focal Point. It has, for example, promoted regional coordination, supported further development of DAD-IS, enabled participation in intergovernmental meetings, and supported in-country activities. Donor support was critical in assisting countries in the preparation of country reports during the SoW-AnGR reporting process.

TECHNICAL ASSISTANCE, STANDARD SETTING AND PROTOCOLS

To assist countries in implementing the *Global Plan of Action*, the Global Focal Point prepares and updates technical guidelines related to the four Strategic Priority Areas of the *Global Plan of Action*. Guidelines on the *Preparation of national strategies and action plans for animal genetic resources* were endorsed by the ITWG-AnGR and adopted by the CGRFA at its Twelfth Regular Session in 2009, which recommended their publication and wide distribution (FAO, 2009c,e). The guidelines provide a step-by-step approach to developing a national AnGR programme and implementing the *Global Plan of Action* nationally. With guidance provided by the ITWG-AnGR and the CGRFA, and taking into account existing international standards and the work of other organizations, the Global Focal Point has also prepared guidelines on *Breeding strategies for sustainable management of animal genetic*



resources, *Surveying and monitoring of animal genetic resources*, *Phenotypic characterization of animal genetic resources*, *Molecular characterization of animal genetic resources* and *Cryoconservation of animal genetic resources*, all of which have been endorsed by the CGRFA (FAO, 2010b, 2011a, 2011b, 2011c, 2011d). Guidelines on *ex situ* conservation and on animal identification and recording are in preparation.

GLOBAL INFORMATION SYSTEM FOR ANIMAL GENETIC RESOURCES

DAD-IS was established as a clearing house mechanism and decision-support and capacity-building tool for AnGR management. The system provides a global mechanism for communication and sharing data, information and knowledge. DAD-IS provides the primary means of communication between National Focal Points and the Global Focal Point, and is used as a tool for teaching and training. DAD-IS allows rapid and cost-effective distribution of guidelines, reports and meeting documents. The system is increasingly used by National Coordinators.

A key feature of DAD-IS is that it provides for country-secure storage and communication of data and information. Countries use the Global Databank for Animal Genetic Resources, the backbone of DAD-IS, to store data on their national AnGR. Data can be entered and updated by National Coordinators via web-based data-entry screens. DAD-IS provides a number of tools for extracting and analysing data from the Global Databank. Data from the Global Databank were the basis for the preparation of three editions of the *World Watch List for Domestic Animal Diversity* (FAO/UNEP, 1993, 1995, 2000), the *SoW-AnGR* (FAO, 2007b) and are used to produce the status and trends reports that CGRFA has requested FAO to prepare for each of its regular sessions (FAO, 2011e).

Like the Global Focal Point, the information system has evolved as needs have increased and technology has advanced. DAD-IS Stage 1 was released in April 1996, and from the beginning was internet based. Stage 2 was released in September 1998 and was available both on the internet, and off-line on a multilingual CD-ROM (French, English and Spanish, with some demonstration capacity in Arabic and Chinese).

In July 1999, a group of experts was convened to consider the future design and development of DAD-IS. The expert group recommended that the system should be based on an open source model concept, allowing countries to modify the system to meet local needs while also enabling integration of national and regional databases with the global system. The expert group also suggested that the system should be further developed to incorporate GIS capability, a module for describing breeds' production environments, and a conservation database for recording material held *ex situ* in gene banks.

Another evaluation of DAD-IS took place in 2004 and resulted in a number of further recommendations. For example, it was proposed that improvements should be made to the user-friendliness of the system and to data quality (including access to quality images). It was also proposed that a well-documented and automated mechanism for updating the databases within the system should be established. The implementation of these recommendations was facilitated significantly through the Global Focal Point's participation in the European Commission-funded project "European Farm Animal Biodiversity Information System" (EFABIS). This project implemented in 2002–2005, was coordinated by the



European Federation of Animal Science (EAAP) and was led by the Institute for Animal Breeding of the Federal Agricultural Research Centre (Mariensee, Germany). The objective of the EFABIS project was to establish a network of databases that would allow regular and automatic synchronization of data between the nodes within the network (national level, regional level and the Global Databank for Animal Genetic Resources within DAD-IS).

The European regional node (EFABIS)⁸ was launched in April 2006. The new open-source software was also used as a basis for the development of DAD-IS:3, which was launched in February 2007. The design of the updated web-based interface took into account comments and proposals made by users of DAD-IS:2. The network of databases is designed so as to allow countries and regions to add country- or region-specific components to their databases, while also providing for the maintenance of a core data set that can be used for analysis and reporting at global level. A tool has been developed to support the translation of national and regional systems into languages other than official FAO languages. For example, Poland has established a national node within the network in both Polish and English.

A follow-up European Commission-funded project (2007–2010) “FABIS-net – an integrated network of decentralized country biodiversity and gene bank databases” supports the establishment of national databases within the network. The FABIS-net project is led by the Institute for Animal Breeding in Mariensee (Groeneveld *et al.*, 2006, 2007). The Global Focal Point is a partner in the FABIS-net project and is responsible for a FABIS-net work package that involves georeferencing the system’s data on breed distribution. A module that will enable detailed description of breeds’ production environments is also being developed.

The outcome of the two projects was a well-integrated network of databases; 16 national nodes had been established by August 2011. Moreover, the open-source software is now available for use by countries outside the European region who may wish to create their own national databases, with interface and content in their national languages and character sets, from which data can be transferred regularly to the Global Databank for Animal Genetic Resources.

It has been agreed that the quality of the data entered into DAD-IS:3 is the sole responsibility of National Coordinators; the Global Focal Point does not validate or modify national data in any way. However, FAO provides translation of the data, as required, into English, French and Spanish. National Coordinators are able to update and enhance their national databases stored in DAD-IS via the internet (including uploading of references and high-quality images). A number of tools have been developed for analysing the data, including an early warning tool that can be used to project the future size and structure of breed populations. The content and interface of DAD-IS:3 are available in English, Spanish and French. The interface is also available in Arabic, Chinese and Russian.

Data are synchronized monthly between the national systems, the regional system EFABIS and the global system DAD-IS. The latest development of DAD-IS includes a module that enables users to analyse the data currently available in the system and to display graphics and overviews similar to those found in the SoW-AnGR.

⁸ <http://efabis.tzv.fal.de>



BOX 2

Building the Global Databank for Animal Genetic Resources – three decades of joint effort

In 1982, the Working Group on Animal Genetic Resources of the Genetics Commission of the European Association for Animal Production* (EAAP) conducted a survey covering five major mammalian species (cattle, goats, horses, pigs and sheep) and 22 European countries. This was followed by a second survey in 1985 to which 17 European countries responded. In 1987, the EAAP Working Group decided to expand the survey to cover breeds not considered to be at risk and developed a database to store the information electronically. In 1988, a third survey was conducted to which 12 countries responded (Simon and Buchenauer, 1993).

In 1990, FAO started collecting data from non-European countries based on EAAP questionnaires and software. In 1992, FAO expanded the species coverage to include further mammalian species such as asses, buffaloes, camelidae, deer, rabbits and yaks and developed a questionnaire for avian species. In 1995, countries were requested to nominate National Coordinators and the information from European and non-European countries was combined and published in the web-based DAD-IS. In 1999, data on extinct breed populations were extracted from Mason (1988) and National Coordinators were requested to confirm and complete these data in DAD-IS. During the SoW-AnGR process, National Coordinators were requested also to enter data on international transboundary breeds and to link breed populations that belong to the same genepool.

As a result of nearly three decades of work, the Global Databank for Animal Genetic Resources covers 34 species (including fertile species crossings), approximately 8 000 local breeds, 500 regional breeds and 600 international breeds. Overall, 182 countries have reported on more than 14 000 national breed populations.

Only recently have National Coordinators commenced regular reporting of data on population sizes and structures. As of October 2010, 48 percent of reported national breed populations lack data on their population size. Current (2007, 2008, 2009 or 2010) population size has been reported for only 9 percent of national breed populations. It is therefore of utmost importance that National Coordinators enter available data on the population size and structure of their national breed populations and, if such data are not already collected regularly, commence surveying and monitoring of national AnGR.

Provided by Beate Scherf, Animal Production Officer, Animal Genetic Resources Branch, FAO.

** Now the European Federation of Animal Science*

At its Fifth Session in 2009, the ITWG-AnGR stressed the importance of interoperability as a means of facilitating the exchange of data and information between DAD-IS and other databases and information systems (FAO, 2009c). It recommended that DAD-IS should be



further developed, taking into account the needs of Member States, and that donor support for this should be encouraged. At its Twelfth Regular Session, the CGRFA stressed that FAO should further develop DAD-IS and that members of the CGRFA should regularly maintain their national data within DAD-IS to ensure that up-to-date material is available for preparing the status and trends reports on AnGR that FAO has been requested to prepare for each session of the CGRFA (FAO, 2009d).

In the future, DAD-IS is likely to become even more important in assisting global efforts to communicate the critical roles and values of AnGR and in decision-support to facilitate the sustainable use, development and conservation of these resources.

PROVIDING AN INTERACTIVE COMMUNICATION SERVICE

In February 2005, the Domestic Animal Diversity Network (DAD-Net) was established by the Global Focal Point as a new communication tool. Registration is open to anyone interested in the management of AnGR and is free of charge. Users receive, and can post, messages via e-mail.

DAD-Net developed rapidly into a well-recognized informal forum for discussion of AnGR-related issues. It has proven to be extremely effective as a means for users to share experiences, request information and initiate informal discussions. The network has provided a platform for many interesting technical discussions that have involved professionals from all over the world. Topics of discussion have included choice of software for calculating genetic relationships and inbreeding, development of country-based early warning and response systems, evaluation of threats to AnGR, experiences in animal identification and recording, national grazing policies, access and benefit sharing regulations for AnGR, and marketing of meat and other products from traditional breeds.

A survey conducted in 2008 indicated that over 1 000 messages had been posted since the launch of DAD-Net, and that users from 114 countries were registered (FAO, 2008). As of August 2011, there were about 1 600 subscribers to the network.

BUILDING NATIONAL CAPACITY IN ANIMAL GENETIC RESOURCES MANAGEMENT

The need for training is a priority that is continually underlined by National Coordinators, especially those from developing regions. The Global Focal Point, supported by the World Association for Animal Production, carried-out a major training operation in 14 subregions to build capacity for the development of country reports during the SoW-AnGR preparatory process. A second round of subregional training workshops was organized to provide additional support to the development of country reports, promote the exchange of experiences, and facilitate the identification of priority activities at regional and national levels.

The Global Focal Point contributes actively to training courses and workshops organized by various partner organizations, including the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), the European Master in Animal Breeding and Genetics (EM-ABG), the Global Diversity (GLOBALDIV) Project funded by the European Commission, the International Livestock Research Institute (ILRI)/Swedish Agricultural University project "Capacity Building for Sustainable Use of Animal Genetic Resources in Developing



Countries” and initiatives of the FAO/International Atomic Energy Agency Joint Division for Nuclear Techniques in Food and Agriculture (FAO, 2009e).

The Global Focal Point plans to organize training courses covering the four Strategic Priority Areas of the *Global Plan of Action* and regional workshops for National Coordinators, focusing on national implementation of the *Global Plan of Action* and discussion of the establishment of Regional Focal Points or Subregional Focal Points.

The Global Focal Point has produced many capacity-building materials including books, guidelines, brochures, posters and CD-ROMs. It oversees the publication of the journal *Animal Genetic Resources*⁹ (formerly *Animal Genetic Resources Information Bulletin*). By August 2011, more than 15 000 copies of the *Global Plan of Action* had been distributed in six languages. The full SoW-AnGR, report had been distributed in more than 4 000 copies; the “in brief” version of the SoW-AnGR in more than 9 000 copies; and the SoW-AnGR on CD-ROM in more than 13 000 copies. The SoW-AnGR brochure has been widely distributed (7 000 copies), as has a fact-sheet brochure (close to 6 000 copies). Films on AnGR in Asia, Africa and elsewhere have been published on DVD and made available on the internet. These capacity-building materials are distributed free of charge to developing countries, and are also provided on request to organizers of national workshops for distribution to participants.

The Global Focal Point has supported the preparation and implementation of a number of Technical Cooperation Projects (TCP), focusing mainly on AnGR-related policy and strategy development (e.g. in Albania, Armenia, Burundi, Mongolia and Nepal). It has also supported other projects that included an AnGR component (e.g. in the Lao People's Democratic Republic and Malawi).

Both DAD-IS and DAD-Net play very important roles in capacity building. The library of DAD-IS provides access easily and free of charge to a wide range of published documents and other sources of information. This service is a major asset for National Coordinators and members of country networks on AnGR. DAD-IS is also widely used in teaching. DAD-Net provides users with a unique means of accessing the extensive technical expertise that is available among the members of the network.

AWARENESS RAISING AND PROMOTION OF ANIMAL GENETIC RESOURCES ISSUES

Political awareness and commitment are indispensable factors for successful AnGR management at national level and for the establishment of the institutional arrangements and budget allocation needed for National Focal Points to function effectively.

One important role of the Global Focal Point is to encourage countries to appoint National Coordinators and provide guidance on terms of reference for National Coordinators and National Focal Points. This includes drawing governments' attention to the importance of continuity in the role of National Coordinator, and recommending – given the instrumental role that National Coordinators play in national AnGR management and the workload that this is likely to involve – that the post requires an official mandate, suf-

⁹ <http://journals.cambridge.org/action/displayJournal?jid=AGR>;
previous volumes: http://dad.fao.org/cgi-bin/EfabisWeb.cgi?sid=-1,refcat_50000044.



ficient seniority and full-time staffing. While the Global Focal Point can build awareness and provide advice on these matters, responsibility for appointing National Coordinators, developing mandates that are appropriate to national circumstances, and allocating appropriate levels of resources ultimately lies with the respective governments.

Another of the key roles of Global Focal Point officers is to attend relevant scientific conferences and meetings and raise awareness of the importance of AnGR and the need for them to be managed properly. The communication strategy associated with the Interlaken Conference provides a good example of the Global Focal Point's awareness-raising activity. The conference web site provided access to conference documents, materials from side events, information for the media, daily reports and press releases in all FAO languages, and photos taken during the conference. Success stories describing development and conservation of local breeds at risk, and interviews with livestock keepers and other interested parties from around the world were made available via the web site. A press kit was prepared and a press conference held during the conference. These actions resulted in broad media coverage of the conference.

Wide distribution of the *Global Plan of Action* to countries, international organizations and other stakeholders was a key element of the follow-up to the Interlaken Conference. The Global Focal Point encouraged translation of the *Global Plan of Action* and its publication in local languages under co-publication agreements¹⁰. By August 2011, the *Global Plan of Action* had been published in 15 languages. The SoW-AnGR and related publications were also translated and distributed widely.

The Global Focal Point has also produced a range of other awareness-raising materials including flyers, brochures and posters. The multilingual web sites of the Animal Production and Health Division contain a range of resources including full-text publications, films and interviews.

FACILITATING THE DONOR AND STAKEHOLDER MECHANISM

Donor support has been essential to global and regional efforts to advance the AnGR programme, both before and after the development of the Global Strategy. Donor support has enabled representatives from developing countries to participate in intergovernmental AnGR-focused meetings, and supported or enabled in-country follow-up to agreements reached during these meetings. Donor support was critical in assisting countries' participation in the SoW-AnGR reporting process.

The Global Focal Point facilitates the donor and stakeholder mechanism, which enables communication with a range of donors and stakeholders and provides opportunities for involving them in the AnGR programme. The mechanism provides an opportunity for the Global Focal Point to convey extra-budgetary financial needs to potential donors and partners, and to seek advice on modalities for securing the necessary resources. This will continue to be essential in the future, as mobilization of extra-budgetary financial resources is needed to support full implementation of the *Global Plan of Action* in developing countries. Donor support is essential to the operation of the Global Focal Point, and mobilization of donor and stakeholder support is an important part of the working agenda of the Global Focal Point.

¹⁰ See <http://www.fao.org/docrep/010/a1404e/a1404e00.htm> for examples.



In agreement with the bureau of the CGRFA, FAO developed and widely disseminated questionnaires on country needs and donor priorities and programmes, the results of which are presented in the document *Results of questionnaires on country needs and donor priorities to implement the Global Plan of Action* (FAO, 2009g). In developing the Funding Strategy of the *Global Plan of Action*, the Animal Production and Health Division of FAO also consulted with other FAO units and international organizations to explore relevant examples of funding strategies and funding mechanisms. Following the adoption of the Funding Strategy for the *Global Plan of Action* at the Twelfth Regular Session of the CGRFA (FAO, 2010a), the Global Focal Point is implementing the Funding Strategy and has set up administrative arrangements for an FAO Trust Account for the Funding Strategy. FAO will continue to provide Regular Programme funds and technical advice to support developing countries in their efforts to implement the *Global Plan of Action*.

COLLABORATING WITH INTERNATIONAL BODIES

The Global Focal Point maintains active collaboration with international bodies and organizations in addressing sectoral and cross-sectoral issues of relevance to AnGR. This involves forging the partnerships needed to promote effective disciplinary and interdisciplinary approaches to the sustainable use, development and conservation of AnGR and to address issues of access and benefit sharing. For example, the Global Focal Point has collaborated with the FABRE-TP (Farm Animal Breeding Technology Platform of the European Union) with regard to priority-setting in AnGR research in Europe.

The Global Focal Point has been very successful in developing partnerships and close collaboration with international bodies, organizations, and institutions, especially with respect to advancing the state of the art in AnGR management and building capacity at national level. Such partnerships foster and enhance the involvement of international organizations in the AnGR sector.

PROVIDING THE SECRETARIAT FOR IMPLEMENTING THE GLOBAL PLAN OF ACTION

The Global Focal Point provides the secretariat for the sessions of the ITWG-AnGR. This involves organizing all logistical arrangements, preparing the agenda and the working and information documents, overseeing the preparation of background study documents and facilitating policy discussions with intergovernmental organizations. The Global Focal Point is also responsible for preparing all AnGR-focused documents for the sessions of the CGRFA.

The *Global Plan of Action* describes the essential role of FAO in supporting country-driven efforts to implement the *Global Plan of Action*, in particular, facilitating global and regional collaboration and networks, and mobilizing donor resources for AnGR. The *Global Plan of Action* recommends that FAO ensure adequate Regular Programme support for the implementation of the *Global Plan of Action* and pursue within relevant international mechanisms, funds and bodies, means by which they might contribute to the implementation of the *Global Plan of Action*.



SECTION 5

Roles and responsibilities of National Focal Points



Roles and responsibilities of National Focal Points

This section presents an overview of the responsibilities of National Focal Points and describes lessons learned regarding the institutional arrangements for hosting them.

HOST ARRANGEMENTS FOR NATIONAL FOCAL POINTS

The process of establishing National Focal Points worldwide was initiated in 1995, following an official request by FAO that Ministers of Agriculture nominate National Coordinators for the Management of AnGR and host institutions for the coordination of AnGR in their countries. This important development, initiated within the framework of the Global Strategy for the Management of Farm Animal Genetic Resources, provided a basic planning and implementation infrastructure for AnGR management at national level. National Coordinators became the main official contact points for the Global Focal Point, facilitating the emergence of a global AnGR network within which information flows between global, regional and national levels. The structural country-level linkages of National Focal Points, as proposed within the framework of the Global Strategy are presented in Figure 2.

The importance of National Focal Points and the need for their further development has been underlined at every session of the ITWG-AnGR and by the CGRFA. Institutional development to ensure a strategic approach to the use, development and conservation of AnGR was emphasized as a priority in many of the country reports provided to the Global Focal Point during the SoW-AnGR reporting process. Several governments have requested FAO to assist them in establishing or strengthening their National Focal Points.

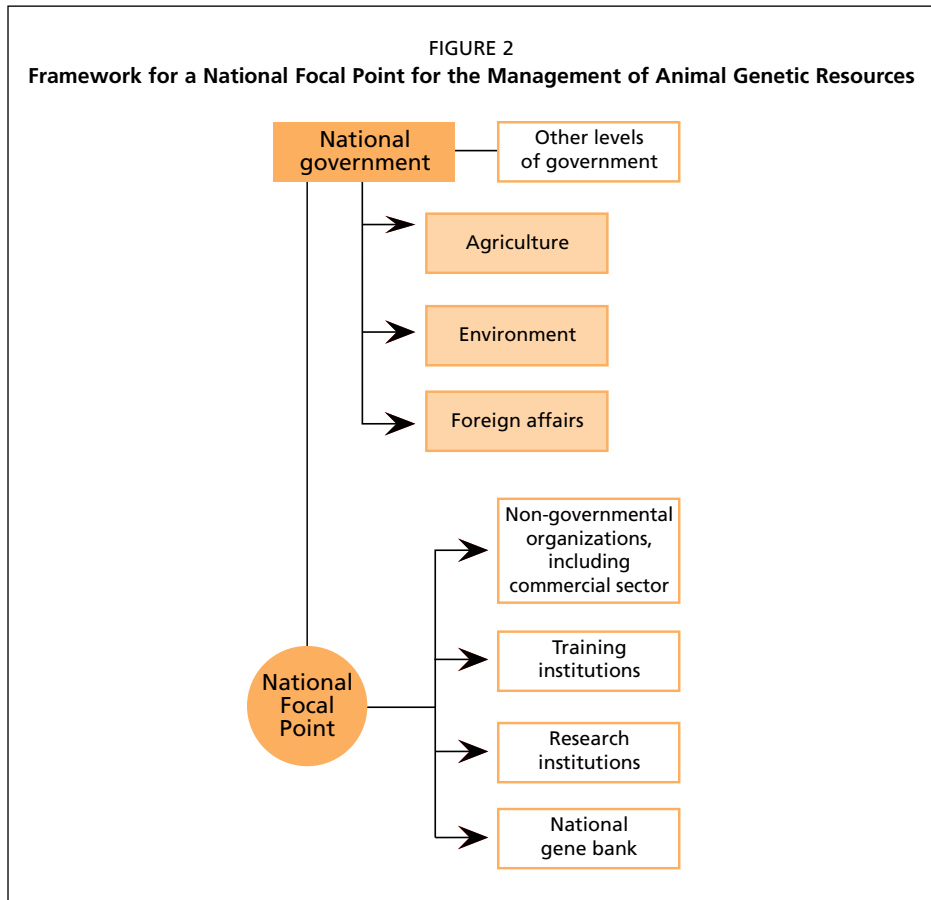
Following the First Session of the ITWG-AnGR in 1998, the establishment of National Focal Points advanced significantly, and by the time of the Second Session in 2000, 81 National Coordinators had been appointed (FAO, 2000a). By September 2004, 130 countries had nominated their National Coordinator (FAO, 2004a). This rapid increase was related to the ongoing SoW-AnGR reporting process. Each country wishing to participate in the process was requested to appoint, if it had not done so already, a National Coordinator and to establish a National Focal Point (FAO, 2001).

As of August 2011, 161 out of 199 countries have officially nominated a National Coordinator. Thus, there were 38 countries that had not appointed (or were in the process of changing) their National Coordinators. These include a few large countries and countries with globally valuable AnGR, meaning that there are still important gaps in the global AnGR network.

A list of all operational National Focal Points is provided in DAD-IS¹¹. In the majority of countries, National Focal Points and country-based AnGR networks have been instrumental in the preparation of country reports and implementation of priority actions.

¹¹ <http://www.fao.org/DAD-IS> – select “Network” from the menu on the left-hand side of the web page.





Fully operational National Focal Points are absolutely essential for national-level implementation of the *Global Plan of Action*. National Focal Points also play very important roles in facilitating country contributions to international initiatives in the management of AnGR through their close cooperation with the Global Focal Point and Regional Focal Points (where established) and other international and regional organizations.

The majority of FAO member countries have established a National Focal Point. However, in many instances there is lack of continuity over time as National Coordinators change jobs and new persons are nominated. In such circumstances, it is often difficult for National Coordinators and host institutions to ensure effective ongoing communication with the Global Focal Point. Some countries have not yet established a National Focal Point. Over the long term, this will affect their participation in important AnGR-related activities that are implemented or planned by the Global Focal Point in consultation with countries.

In total, 161 countries (80 percent) have established a National Focal Point for AnGR. The number has increased from 148 countries in July 2009 (during the intervening period some countries had changed the location of their National Focal Point or nominated a new National Coordinator). The regions with the highest proportion of countries having established a National Focal Point are Africa and Europe (93 percent and 88 percent respectively).



TABLE 1
Host institutions of National Focal Points by region

Location of the National Focal Point	Africa	Asia and Pacific	Europe	Latin America and the Caribbean	Near East	North America	Total
Ministry of Agriculture	30	18	15	13	7	-	83
Research institutes	6	5	10	7	8	-	36
Universities	-	-	10	-	-	-	10
Specifically established organizations	3	1	3	-	-	2	9
Other existing organizations	2	2	6	2	3	-	15
Unspecified	1	1	-	1	1	-	4
Number of countries with established National Focal Point	42	27	44	23	19	2	157
Number of countries without established National Focal Point	3	12	6	10	10	-	41
Total number of countries	45	39	50	33	29	2	198

Source: DAD-IS (accessed in October 2010).

National Focal Points are hosted in a range of institutions, which includes ministries of agriculture or other ministries, research institutes, universities and other national institutions (see Table 1).

More than half the National Focal Points are located within ministries responsible for agriculture, rural development or animal production. The next most common host institutions are national research institutes (23 percent), followed by other organizations established within the national agricultural framework (national agricultural boards, national councils of agricultural research, agencies for animal breeding and reproduction, agencies for veterinary services, national associations for animal production, farmers' associations, etc.) (9.6 percent). In some countries in Europe, National Focal Points have been established at agricultural universities.

An interesting example is provided by Germany, where the National Coordinator (responsible for policy matters) is located in the ministry, while the Alternate National Coordinator (responsible for technical issues) is based in the Information and Coordination Centre for Biological Diversity (IBV) of the Federal Agency for Agriculture and Food (BLE).

In a number of countries, specific institutions have been established to deal with broader issues of biodiversity conservation and genetic resources. This is the case, for example, in Ethiopia (Institute of Biodiversity Conservation), Bhutan (National Biodiversity Center) France (Fondation pour la recherche sur la biodiversité – FRB – formerly Bureau des Ressources Génétiques), the Netherlands (Centre for Genetic Resources – CGN), and Norway (Norwegian Genetic Resource Centre – Nordgen).



BOX 3

How I became National Coordinator for Animal Genetic Resources in Switzerland

In 1995 the CBD came into force in Switzerland. With its signature, the country expressed its intention to survey, maintain and encourage biodiversity with appropriate measures. In order to do so, the Federal Office for Agriculture (FOAG) appointed an ad hoc working group in 1996, which was given the following tasks:

- collecting all information on the state of biodiversity in farm animals in Switzerland;
- defining the term “Swiss breed”;
- establishing inventories and describing the breeds;
- evaluating the cultural, economic and genetic values of these breeds; and
- determining priorities for action.

An intermediate report was submitted in 1997 and led to a new mandate with the following enlarged requirements:

- elaborating concrete measures for the maintenance of Swiss breeds including global and specific proposals;
- elaborating a framework for granting financial support; and
- reflecting on coordination, supervision and handling.

In its final report in 1998, the working group recommended the establishment of a secretariat (National Focal Point) for AnGR responsible for specific support measures and provision of the inputs necessary for projects promoting rare breeds. Based on these recommendations, FOAG established and financed a National Focal Point for rare breeds. At the same time, the first National Coordinator was appointed – for an unlimited period of time – with the following terms of reference:

- evaluate, coordinate and monitor projects related to the management of AnGR;
- monitor data on rare breeds;
- initiate research work;
- promote networking nationally and internationally;
- make information available to the public through publications and presentations on rare breeds; and
- follow international activities related to AnGR.

The first duties of the National Coordinator were to initialize the revision of the ordinance for livestock breeding by introducing a new paragraph allowing contributions for endangered breeds and to invite breeding organizations to submit projects for rare Swiss breeds. FOAG set an annual budget of CHF 1 million, permitting recognized breeding organizations to submit projects. In 2002, FOAG appointed a group of experts to evaluate projects and make recommendations. Since 1999, over 40 projects have been submitted and financially supported for Swiss breeds of cattle, horses, sheep, goats, chickens and bees.

Provided by Catherine Marguerat-König, National Coordinator of Switzerland, Federal Office for Agriculture.



BOX 4

The National Focal Point in Kenya – achievements and obstacles

The National Focal Point for AnGR is based at the Ministry of Livestock Development, Department of Livestock Production, in Nairobi. The ministry has appointed both a National Coordinator and an Alternate National Coordinator.

The National Advisory Committee on AnGR has been established with a membership of 11 persons representing the major stakeholders dealing with AnGR in the country. The membership includes representatives of the Ministry of Livestock Development, universities and research institutions including ILRI, farmers' organizations, farmers and NGOs.

The Advisory Committee has requested funds from the Ministry for Livestock Development to enable its operation, but so far no allocations have been made available. However, the National Advisory Committee has continued its meetings. The committees' next planned activities include developing a National Animal Breeding Bill and a National Strategy and Action Plan for the Management of AnGR. To date, lack of funding has drastically affected the work of the National Advisory Committee.

Achievements

Kenya has been developing a National Animal Breeding Policy, which is in line with the Strategic Priority Area 4 of the *Global Plan of Action* (Policies, Institutions and Capacity-building). The task force involved has been mainly drawn from the National Advisory Committee. The task force has been spearheading a very consultative process. It has completed its work and forwarded the draft of the National Animal Breeding Policy to the Permanent Secretary of the Ministry of Livestock Development for onward transmission to the Cabinet for approval. The National Animal Breeding Policy is expected to guide the management of AnGR in Kenya. Moreover, Kenya has updated its data in DAD-IS, with the latest being information drawn from ILRI's Domestic Animal Genetic Resources Information System (DAGRIS) through assistance from FAO.

Provided by Cleopas Okore, National Coordinator of Kenya.

Other institutions focus specifically on livestock biodiversity. These include the National Animal Genetic Resources Centre and Databank (NAGRC & DB) in Uganda, the Institute of Organic Farming and Farm Animal Biodiversity in Austria, and (till 2009) the Consortium for the Experimentation, Dissemination and Application of Innovative Biotechniques (ConSDABI) in Italy. In the United States of America, the special National Animal Germplasm Program was established under the United States Department of Agriculture's Agricultural Research Service. Similar institutional arrangements have been established in Canada, where the Canadian Genetic Resources Program was established at the Saskatoon Research Center under Agriculture and Agri-Food Canada.



BOX 5

The National Focal Point in Turkey – how does it work?

The conservation and sustainable utilization of AnGR in Turkey is coordinated and supported financially and technically by the General Directorate of Agricultural Research (GDAR) on behalf of the Ministry of Agriculture and Rural Affairs. The National Focal Point consists of two committees – the National Consultative Committee on AnGR Conservation and the Animal Breed Registration Committee – and the National Coordinator.

These committees were established according to Animal Improvement Law (No. 4631) and two regulations: the Animal Genetic Resources Conservation Regulation and the Animal Breed Registration Regulation, both published in 2002. The National Consultative Committee has members representing relevant ministries, faculties, trade associations and NGOs, and its principal role is to provide advice to the government and interested parties on issues related to inventory, characterization, conservation and sustainable utilization of AnGR. The National Consultative Committee encourages the conservation and sustainable use of AnGR, helps to set research and development priorities, and advises on *in situ* and *ex situ* conservation programmes.

Activities on characterization, conservation, collection and utilization of the AnGR are undertaken in close collaboration with the Agricultural and Veterinary Faculties of the country, the Scientific and Technological Research Council of Turkey (TÜBİTAK), breeders' associations and livestock keepers. In total, 13 sheep, 5 goat, 6 cattle, 1 water buffalo, 1 bee and 2 chicken breeds, and 3 silkworm lines are conserved on farms belonging to six GDAR institutes and their genetic material is stored in two gene banks. Phenotypic and genotypic characterization projects are also carried out. Moreover, to encourage local livestock keepers to keep, conserve and improve breeds in their traditional areas of origin, some financial incentives have been paid on a per animal basis. Well-attended programme evaluation meetings are held annually and provide an opportunity to discuss progress in ongoing conservation projects and obtain scientific advice on further actions.

Provided by Oya Akin, National Coordinator of Turkey.

In several countries, growing awareness of the roles and values of genetic resources for food and agriculture has led to the establishment of institutional responsibility for national programmes addressing all genetic resources (plant, animal, forestry, etc.).

Other organizations that have been chosen to host National Focal Points include organizations responsible for livestock breeding activities (e.g. Benin, Dominican Republic and the Philippines), veterinary services (Myanmar) or advisory services (Mexico). In some countries, the National Focal Points are hosted by associations: examples include the Farmers Association of Iceland, the Swedish Board of Agriculture, the Rural Business



BOX 6

The Centre for Genetic Resources, the Netherlands

The National Coordinator and the National Focal Point for AnGR are situated within the Centre for Genetic Resources, the Netherlands (CGN). The CGN is a part of Wageningen University and Research Centre and carries out specific tasks for the Ministry of Agriculture, Nature and Food Quality. These tasks include:

1. policy advice;
2. development and maintenance of gene bank collections for farm animals;
3. technical advice to breed societies and managers of small populations; and
4. strategic scientific research in the areas of cryobiology, reproduction and conservation genetics.

We consider that the establishment of the National Focal Point within the high-quality research environment provided by the Animal Breeding and Genomics Centre of Wageningen University has been of key importance. This environment guarantees the scientific quality of our work. The wide range of different tasks carried out at CGN is another advantage, as it guarantees strong links with many different stakeholders and hence a strong basis for the development of policy advice.

Although the CGN and the National Coordinator are not primarily responsible for the implementation of the *Global Plan of Action*, the CGN plays an important role in coordinating and facilitating this work. For some of the areas of the *Global Plan of Action*, the CGN is the main responsible organization. One of these areas is the further development of the gene bank for farm animals in the Netherlands. Initially, the private sector established gene-banking activities, but in 2003 the CGN was given this responsibility, and since then it has been coordinating cryoconservation strategies at the national level. Over several years, the CGN collected, or facilitated collection of, genetic material (mainly semen and some embryos) of important farm animal species in the Netherlands. Currently (2009) we are planning to cryoconserve more embryos and also oocytes. We will also develop a parallel cryoconservation strategy to collect somatic cells from a variety of species and breeds for conservation and/or research purposes. In order to successfully cryopreserve genetic material from all species, we carry out scientific research to underpin cryoconservation protocols. All protocols are embedded in our ISO quality-management system.

Although cryoconservation tasks are very important for long-term conservation of farm animal genetic diversity, it is even more important that breeds are managed properly *in situ*. Therefore, we plan to increase our efforts to support breed societies or breed interest groups in strengthening their breeding strategies. Our role is to analyse the status of particular breeds, in particular, the genetic diversity within these breeds, followed by the development of breeding strategies and breed promotion options.

Provided by Sipke Joost Hiemstra, National Coordinator of the Netherlands.



Development and Information Centre in Lithuania and the Georgian National Association for Animal Production.

Experience has shown that the hosting environment for the National Focal Point can take many forms and that no one type of institutional arrangement is necessarily superior to another. Each may have strengths and weaknesses. For example, a National Focal Point located within a ministry is likely to play a key role in the development of relevant policies and programmes, and may directly influence decisions regarding the use of public financial and human resources, including those needed for effective operation of the National Focal Point. A disadvantage is that a National Coordinator working in the ministry may frequently be involved with other departmental tasks and not able to focus on AnGR as fully as may be possible for National Coordinators located in other institutional settings.

Situating the National Focal Point within a research institute will provide the National Coordinator with direct contact to researchers. This may be extremely valuable in advancing scientific and technical aspects of AnGR management. The disadvantage may be less involvement in policy making and planning, and less influence on budget allocations for the National Focal Point.

Situating the National Focal Point in a university – as well as providing research contacts and the possibility to undertake research directly – provides opportunities for involving students in AnGR programmes and projects, which benefits both the programmes and the students. Students can undertake research projects related to various aspects of AnGR management (e.g. inventory, characterization and monitoring of populations that require urgent conservation measures; breed development; marketing of products; and genetic analysis of populations within conservation programmes). Students can also be involved in the process of reporting on status and trends in breed populations, collecting and synthesizing data, and entering information into DAD-IS. Such involvement allows students to learn, gain experience and provide valuable support to the work of the National Focal Point, which in turn is enabled to undertake a greater range of activities at lower cost.

Each country needs to determine the most appropriate placement for its National Focal Point, in line with their existing institutional framework for the management of the livestock sector, genetic resources and agricultural biodiversity, and taking into account the tasks, responsibilities and capabilities of potential host institutions, and their past contributions in the field of AnGR management. In establishing the National Focal Point, countries will also need to ensure efficient use of available human resources, while ensuring that the policy and technical expertise required to coordinate implementation of the national programme for AnGR is in place.

If there are several potential host institutions for the National Focal Point, it may be useful to instigate a selection process that requires each candidate institution to prepare detailed proposals. The most important objective is to ensure a balance between the policy-related and the technical capacities of the National Focal Point.



BOX 7

Gene bank development and use in the United States of America

As with most countries, the United States of America had no formal government programme to conserve AnGR before 1999. In that year, the United States Department of Agriculture's Agricultural Research Service formed the National Animal Germplasm Program (NAGP).

To serve the United States of America's livestock industry, NAGP was charged to "provide genetic security and facilitate genetic understanding" through the acquisition and cryopreservation of genetic resources from all food or fibre producing livestock species (cattle, pigs, sheep, goats, poultry and aquatic species). While the acquisition and storage of the germplasm is clearly a function of the Federal Government, the United States of America's livestock sector is very diverse. As a result, in the early formation of the NAGP it was decided that the livestock industry, universities and federal government agencies would be involved in the execution of the NAGP mission. This participation takes place primarily through species committees. In total, these committees have approximately 60 members from various industries, universities and government agencies.

The committee structure proved vital as collection activities started. Input from committee members facilitated the targeting of populations from which to acquire germplasm, and the committees were extremely valuable in making contacts throughout their respective livestock subsectors, which aided the acquisition of germplasm and promoted general industry awareness. Due the effective nature of these committees, the NAGP has been able to acquire approximately 550 000 germplasm samples from over 12 000 animals for the gene bank. To date, the gene bank contains samples on over 180 breeds and research or corporate populations. As a result of this effort, we consider many of the populations to be secure and that we have the genetic resources necessary to reconstitute these populations.

In addition to building collections of germplasm to secure livestock populations, the collection has become a source of germplasm and/or DNA for the industry and research communities. To date, samples from over 2 400 animals have exited the repository for genomic studies, development of research populations, reconstitution of research populations that had been discontinued, and to introduce genetic variability into rare breeds of cattle. In addition, the acquisition of germplasm has afforded us an opportunity to initiate research across a broad array of disciplines including cryobiology, genetic status and management of livestock populations, reproductive management to improve the efficiency of germplasm utilization, and information system management.

Provided by Harvey Blackburn, National Coordinator of the United States of America.



BOX 8

The Brazilian Platform for Genetic Resources

In early 2009, Brazil launched an innovative structure for the conservation and sustainable use of its genetic resources, known as the Brazilian Platform for Genetic Resources, under the leadership of the National Research Center for Genetic Resources and Biotechnology, which also hosts the Regional Focal Point of AnGR for Latin America and the Caribbean.

This platform is composed of four networks:

1. utilization and conservation of plant genetic resources;
2. AnGR;
3. micro-organism genetic resources; and
4. a horizontal network composed of five projects that are integrated with the other three networks.

Among the five projects, the first deals with the general management of the platform, while the other four projects involve research into issues common to the three above-mentioned sectoral networks: germplasm curatorship, documentation, exchange and quarantine.

The AnGR Network involves research projects on the following topics:

- management of the animal network;
- *ex situ* conservation and *in situ* conservation;
- genetic characterization;
- conservation of wildlife with economic potential; and
- *in situ* conservation of associated herds (herds that do not belong to EMBRAPA).

The *in situ* conservation project includes conservation nuclei of naturalized breeds of seven major species – cattle, horses, buffaloes, sheep, goats, pigs and donkeys – distributed all over the country (poultry breeds should soon be included in the programme). The genetic characterization and *ex situ* conservation projects are responsible for the characterization and the cryoconservation of genetic materials from the animals included in the conservation nuclei.

The Genetic Resources Platform includes, in total, 30 research projects and 170 action plans, which are being developed at 35 EMBRAPA Research Centers and 70 partner institutions, with participation of 520 researchers. Such a structure shows the high priority that the country is giving to the conservation and sustainable use of its genetic resources for food and agriculture.

Provided by Arthur Mariante, Leader of the Brazilian Platform of Genetic Resources, National Coordinator of Brazil.



BOX 9

The Canadian Animal Genetic Resources Program

The Canadian AnGR programme is managed and resourced by Agriculture and Agri-Food Canada, the national Ministry of Agriculture, and is co-located on the campus of the University of Saskatchewan, Saskatoon. The AnGR programme is integrated with the plant, microbe and plant virus genetic resources programmes and is managed by a research manager.

Canada recognizes the commonality of functions across the various phyla and attempts to integrate them whenever possible. The national genetic resources programme responds to priorities within Agriculture and Agri-Food Canada's Science and Innovation Action Plan and specifically to Science Priority 6: Enhanced Understanding of Canadian Bioresources and Protecting and Conserving Genetic Diversity. The research manager seeks strategic advice on policy, research priorities and operational guidelines and protocols, when required, from a national AnGR advisory committee composed of industry, academia and NGO members. The manager also consults with professional staff and researchers at the University of Saskatchewan when required.

Long-term objectives for the national programme are to protect and conserve the genetic diversity of Canadian bioresources; contribute to the security, protection and safety of the food system; enhance the environmental performance of the Canadian agricultural system; and contribute to the development of new opportunities for agriculture; thereby enhancing food and feed quality, Canadian health and wellness, economic benefits for industry, and supporting bioresource-related regulatory requirements. Short-term objectives are to:

- develop new techniques to conserve and regenerate plant, animal and microbial germplasm to maintain genetic integrity and minimize genetic erosion;
- create new phenotypic and genotypic information including identifying new sources of disease resistance, abiotic stress resistance, nutritional quality and bioactive compounds, through characterization and evaluation of bioresource attributes;
- assess changes to genetic diversity in domesticated plant and animal germplasm;
- improve the structure of the GRIN-CA database for delivery of bio-information; and
- contribute to access and benefit sharing regimens (acquire, donate, maintain, and regenerate germplasm) consistent with Canada's commitments to international treaties such as the CBD and the FAO International Treaty on Plant Genetic Resources for Food and Agriculture.

Provided by Ken Richards, Research Manager, Canadian Genetic Resources Program, Agriculture and Agri-Food Canada, Saskatoon Research Center.



BOX 10

The National Focal Point in Namibia – successes and obstacles

The initiation of formalized activities in AnGR management commenced in 1996 when Namibia participated in a training on AnGR provided by ILRI at its Nairobi Campus with financial support from FAO. In 1997, Namibia contributed to the inception meeting of the South African Development Community (SADC) Regional Project on AnGR, held in Gaborone, Botswana. The SADC/United Nations Development Programme (UNDP)/FAO Regional AnGR Project commenced with a meeting in August 1998, in Pretoria, South Africa. A National Coordinator was appointed and the National Focal Point was established in the Division of Livestock Research, within the Directorate of Agricultural Research and Training of the Ministry of Agriculture, Water and Forestry. During a stakeholder meeting in January 2000, it was decided rather than to establish a National Advisory Committee for AnGR, to reinstate the Livestock Improvement Board and have this board act as the National Coordinating Committee, with the mandate to prepare the country report on AnGR for the SoW-AnGR process. This planned arrangement never materialized, leaving the National Coordinator to work without the guidance or assistance of a National Advisory Committee in the execution of his tasks and the preparation of the country report, relying on private consultations for assistance.

The activities of the National Coordinator, and the management of AnGR in Namibia in general, are hampered by the lack of a National Advisory Committee and a number of other factors including:

1. very little institutional memory (very few experienced researchers, especially in the area of breeding and conservation);
2. limited institutional capacity (limited number of researchers, especially with a specialization in breeding);
3. a lack of statisticians; and
4. limited funding.

Notwithstanding these problems, Namibia was able to achieve a number of successes, both during the period of implementation of the regional project and after its completion, including:

1. continuity in the role of National Coordinator (the holder of the position in 2010 was appointed in 1998);
2. continuity in the operation of the National Focal Point;
3. production, in 1998, of two manuals, one on Sanga cattle and one on Damara sheep for use in training communal farmers;
4. training of enumerators in all 13 regions of Namibia in preparation for the breed survey carried out in 2000;

cont.



5. phenotypic description of four ecotypes of Sanga cattle, four indigenous goat breeds, one indigenous pig breed and the indigenous chicken, which resulted in the publication in 2000 of a manual titled *Identification of indigenous livestock of Namibia*;
6. completion in 2001 of the genetic characterization of the indigenous cattle, goat and pig populations;
7. institutionalization of AnGR activities within the recurrent budget of the Directorate of Agricultural Research and Training;
8. production of Namibia's country report on AnGR, which was finalized in 2006;
9. implementation of research projects incorporating indigenous livestock as part of the directorate's programme on *in situ* and *in vitro ex situ* conservation of indigenous livestock, which has been expanded to include the provision of breeding stock to the Livestock Improvement Scheme run by the Livestock Research Division; and
10. implementation, by the Livestock Research Division, of conservation projects for the following species and breeds:
 - Caprivi Sanga, Kavango Sanga, Ovambo Sanga, Nguni and Afrikaner cattle;
 - Damara and Karakul sheep;
 - Caprivi, Kavango, Ovambo and Kunene goats; and
 - Indigenous pigs (very small breeding group).

The success of a conservation project depends on the dedication of staff members, rather than on their number. However, the number of staff members does influence the number of projects that can be implemented successfully.

Provided by Jacques Els, National Coordinator of Namibia.

It should be noted that while the responsibilities of National Focal Points normally encompass the whole country, in some circumstances a central structure may not be sufficient to coordinate AnGR programmes effectively. Large countries and countries with complex governmental arrangements may require the establishment of subnational focal points at state, province or local levels.

In countries where National Focal Points have been established but have not become fully operational, a review of the current institutional arrangements should be considered in order to ensure that full advantage is taken of the opportunities that are emerging following the adoption of the *Global Plan of Action*.

Especially for countries that have not yet chosen the host institution for their National Focal Point, it is important carefully to consider all the options available, taking into account national specificities and existing institutional frameworks, and learning from the experiences of other countries.

Examples of the effective institutional frameworks developed in the Czech Republic and in Poland are presented in Figures 3 and 4.



BOX 11

The National Focal Point for Animal Genetic Resources in Senegal

The Senegalese National Focal Point for AnGR was initially set up within the Senegalese Institute for Agricultural Research (ISRA). This approach was chosen because the research stations of the institute have always been involved in the breeding and selection of local breeds. Development institutions such as the Livestock Directorate of the Ministry have had a limited role in supporting the development of breeding programmes for native breeds. They have mostly promoted the introduction of exotic breeds and cross-breeding programmes.

The establishment of the National Focal Point has initiated and stimulated debate on genetic improvement and the development of livestock sector. These discussions have taken place at various meetings with individuals and representatives of institutions involved in animal agriculture. Research results presented at these meetings have provided evaluation of the performance of local breeds and cross-breeds, in herds and flocks kept at research stations and on private farms in common production systems. This has resulted in greater understanding and awareness of the role and potential contribution of local breeds and the need to address them in policies aimed at increasing animal production. It is now well accepted that the place for cross-breeding is in the limited areas where the production environment has been intensified, while local breeds are the most suitable animals for most of the current agro-ecosystems.

Another contribution of the National Focal Point has been its active participation in the conception and formulation of the regional project “*In-situ* conservation of endemic ruminant livestock in West Africa”. This project, conducted in four countries (Gambia, Guinea, Mali and Senegal), is funded by the Global Environment Facility and the African Development Bank with some financial contribution from the participating countries. The main objective of the project is the conservation and valorization of trypanotolerant breeds, along with the sustainable management of their native production environments.

Difficulties faced by the National Focal Point mainly relate to the fact that it has no specific funding in the national budget. Moreover, the National Focal Point is not a formal structure, such as a bureau or a division within the Institute or the Ministry, but rather a discussion group. The activities of the National Focal Point are, therefore, carried out and financially supported by the programmes that are conducted by its core members.

Provided by Mamadou Diop, National Coordinator of Senegal.



BOX 12

The Ukrainian National Focal Point for Animal Genetic Resources

The National Focal Point is hosted in the Institute of Animal Breeding and Genetics, which coordinates the implementation of the scientific and technical programme "Preservation of a gene pool of farm animals till 2010". This programme was adopted by the Presidium of the Ukrainian Academy of Agrarian Sciences. All research institutes under the academy that are working in the field of animal production are participating to some extent in the implementation of the programme. The institute also manages the cryobank for AnGR, which is recognized as a national heritage of Ukraine. A separate laboratory has been established to support the maintenance of the AnGR cryobank.

The following recently completed activities are considered very important in advancing the management of AnGR in Ukraine:

- the National Focal Point is finalizing an inventory of AnGR in Ukraine, which already covers 550 populations within 38 livestock species;
- the National Focal Point has identified the basic threats affecting the country's most vulnerable AnGR;
- a book on methodological aspects of AnGR conservation has been published in Ukrainian;
- a national strategy addressing two very important problems – organization of the state breeding services and preservation of livestock diversity – has been prepared; and
- the "Programme on preservation of a gene pool of the major farm animals species in Ukraine for the period till 2015" has been elaborated, published and disseminated. The financial and other support needs necessary for its implementation have been identified.

The next key steps include:

- improvement and strengthening of the national policy in the field of sustainable use and development of AnGR;
- collection of data and preparation of analytical materials for updating and enhancing Ukraine's national database in DAD-IS;
- establishment of centres for *in situ* conservation of AnGR; and
- contribution to regional and international activities and work on AnGR.

The major obstacle to the work of the National Focal Point is insufficient state financing for the implementation of AnGR management programmes.

Provided by Igor Guziev, National Coordinator of Ukraine.



BOX 13

Early experiences of the Slovenian National Focal Point

In the past, activities for the protection of AnGR in Slovenia were neither promising nor supported. The reason for this was that there were no NGOs in any relevant fields, including animal husbandry. Persons trying to initiate conservation activities for native breeds were able to implement their proposals only through the public agricultural institutions.

Initiative was taken by a group of scientists from the Department of Animal Science, Biotechnology Faculty, at Ljubljana University, carrying out research and collaborating on conservation of Slovenian local breeds. The group, over time, became associated with the Slovenian National Focal Point. We held numerous meetings, and tested products from autochthonous breeds, which attracted the interest of some officials. I remember that representatives from a neighbouring country visited us and expressed interest in our native breeds, proposing that they would buy our stock to breed and sustain it. When I suggested to the officials that our native breeds might be preserved by our neighbours, it became a political issue. The awareness and interest of the Ministry became stronger, focusing on Slovenia's responsibility to maintain our own native breeds. Officials agreed that the Slovenian National Focal Point could carry out a project related to reviewing and evaluating Slovenian native breeds. Some people were surprised that such breeds still exist at all, because some time ago there was a regulation that required breeding males of certain local breeds to be castrated.

As the Slovenian National Focal Point had found a small number of animals belonging to native breeds, we proposed that these breeds should be protected and that support should be provided for their breeding. The National Focal Point suggested that the breeds should be maintained in their traditional environments. The interest in conserving native Slovenian breeds was growing from year to year. The National Focal Point initiated a public awareness campaign, through publications and various publicity materials (posters, brochures, leaflets).

The next development was related to the preparation of the Animal Breeding Act. Initially, the Ministry intended to regulate only the use and development of livestock, as was done in some neighbouring countries. The Slovenian National Focal Point relentlessly insisted that the Animal Breeding Act should also address the issue of protecting AnGR, which represent the foundation of livestock production. Moreover, we believed that under the CBD it is an obligation for every country to protect its genetic resources and that therefore Slovenian native breeds of domestic animals should be conserved. Later, when the Animal Breeding Act (with provisions for AnGR conservation) was adopted, officials praised it during the European Union negotiations. This was confirmation that we acted in the right direction by demanding the inclusion of AnGR conservation among the obligations of the state. Slovenian law had addressed this obligation five years before the Interlaken Declaration.

Provided by Drago Kompan, National Coordinator of Slovenia.



BOX 14

The National Focal Point for Animal Genetic Resources in China

The National Commission for the Management of Animal Genetic Resources was established in 1996. As China's National Focal Point, the Commission takes overall responsibility for managing AnGR under the leadership of Ministry of Agriculture. Its work includes the following activities:

- participating in the drafting of Animal Husbandry Laws and regulations related to AnGR, implementing these laws and regulations, and preparing relevant national guidelines and policies for protecting and managing AnGR;
- assessing and certifying programmes for the conservation and utilization of AnGR, and assisting the Ministry of Agriculture in the formulation of national programmes for the conservation and utilization of AnGR in a scientific manner;
- assessing national AnGR conservation projects and providing guidance for their implementation;
- assisting the Ministry of Agriculture in the supervision and inspection of the work undertaken by institutions implementing projects on breed protection;
- determining and assessing new breeds and identifying commercial lines, with the objective of safeguarding the quality of breeding animals;
- conducting nationwide surveys on AnGR, and maintaining the national database;
- conducting advisory work on the conservation and utilization of AnGR at national level, organizing technical training and promoting awareness of conservation issues; and
- taking an active part in international cooperation and exchanges, the implementation of relevant international conventions, and in drafting regional and global strategies for AnGR.

Mr Chen Weisheng, the National Coordinator, is the head of the Commission/National Focal Point. Routine work is undertaken at the National Animal Husbandry Service. The National Advisory Committee, attached to the Commission/National Focal Point, has six working groups – cattle, sheep/goats, pigs, poultry, horses/camels and bees. They constitute a network of more than 40 consultants. Most of them are professors or senior researchers in animal breeding. Others come from governmental organizations or extension services.

Provided by Hongjie Yang, Assistant to the National Coordinator of China.



BOX 15

The National Focal Point for Animal Genetic Resources in Peru – successes and obstacles

The National Focal Point for AnGR in Peru is hosted by the Department of Genetic Resources and Biotechnology of the National Institute of Agricultural Innovation (INIA). It is responsible for the identification, characterization, conservation and sustainable use of Peruvian AnGR. INIA is a decentralized government institution belonging to the Ministry of Agriculture.

The main successes of the National Focal Point include:

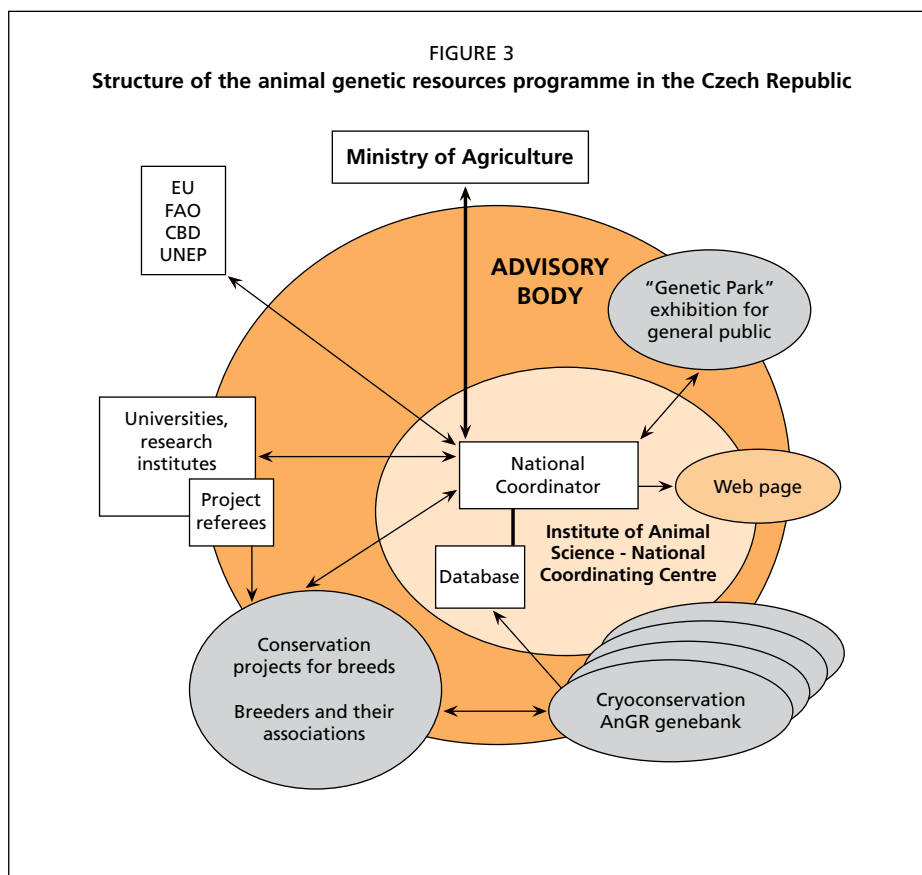
- Development of the guinea pig farming industry in Peru. The guinea pig is a native species of the Andes. It constitutes an important protein source for the population; annual domestic consumption amounts to 56 million carcasses, totalling 17 000 tonnes of meat. The work of the National Focal Point was to develop the farming technology for this species and increase the efficiency of its production. After three decades of work, the slaughter weight at 3 months of age had increased from 350 g to 1.2 kg and the feed conversion efficiency had increased from 6.5 kg of feed/kg of body weight gain to 3.5kg/kg.
- Successful collaboration among farmers, scientists from INIA and universities has led to development the pure white “Suri” and “Huacaya” breeds of alpaca. They are maintained in an *in vivo* gene bank for coloured alpacas. Recently, a genetic improvement programme has been carried out to determine breeding values for the main economic traits in alpacas.
- Work on characterization at phenotypic and molecular levels of criollo cattle and coloured alpacas and llamas is in progress.

INIA has requested the Ministry of Agriculture, which has requested FAO (Peru) to support the establishment of the National Permanent Committee for AnGR and elaboration of a national plan for the conservation and sustainable use of AnGR. A response is being awaited. This is very important for us because the allocation of budget for effective development of the country’s AnGR depends on the existence of a clear plan and a body that can oversee the execution of the plan and seek funds.

Currently (2009), the budget allocated to INIA for conservation and sustainable use of AnGR is less than US\$60 000 per year. The situation of the criollo breeds of all species (sheep, cattle, goats, pigs, chickens and turkeys) in Peru is very much at risk due to cross-breeding with exotic, specialized breeds. Therefore, development of a national action plan and obtaining the funds for its execution are crucial to avoiding the extinction of criollo breeds. Unfortunately, we have to restart all the education and lobbying in the Ministry of Agriculture to achieve the establishment of the National Permanent Committee and the budget, because we have suffered the change of four ministers (and all their directors) in fewer than three years! And we have a new one just this week. Other limitations, besides the political changes, include the educational level of the farmers as most of the keepers of criollo breeds are peasants with very low levels of education and very limited economic resources.

Provided by H. William Vivanco, National Coordinator of Peru.





ACTIVITIES OF NATIONAL FOCAL POINTS

The key areas of activity of National Focal Points usually include:

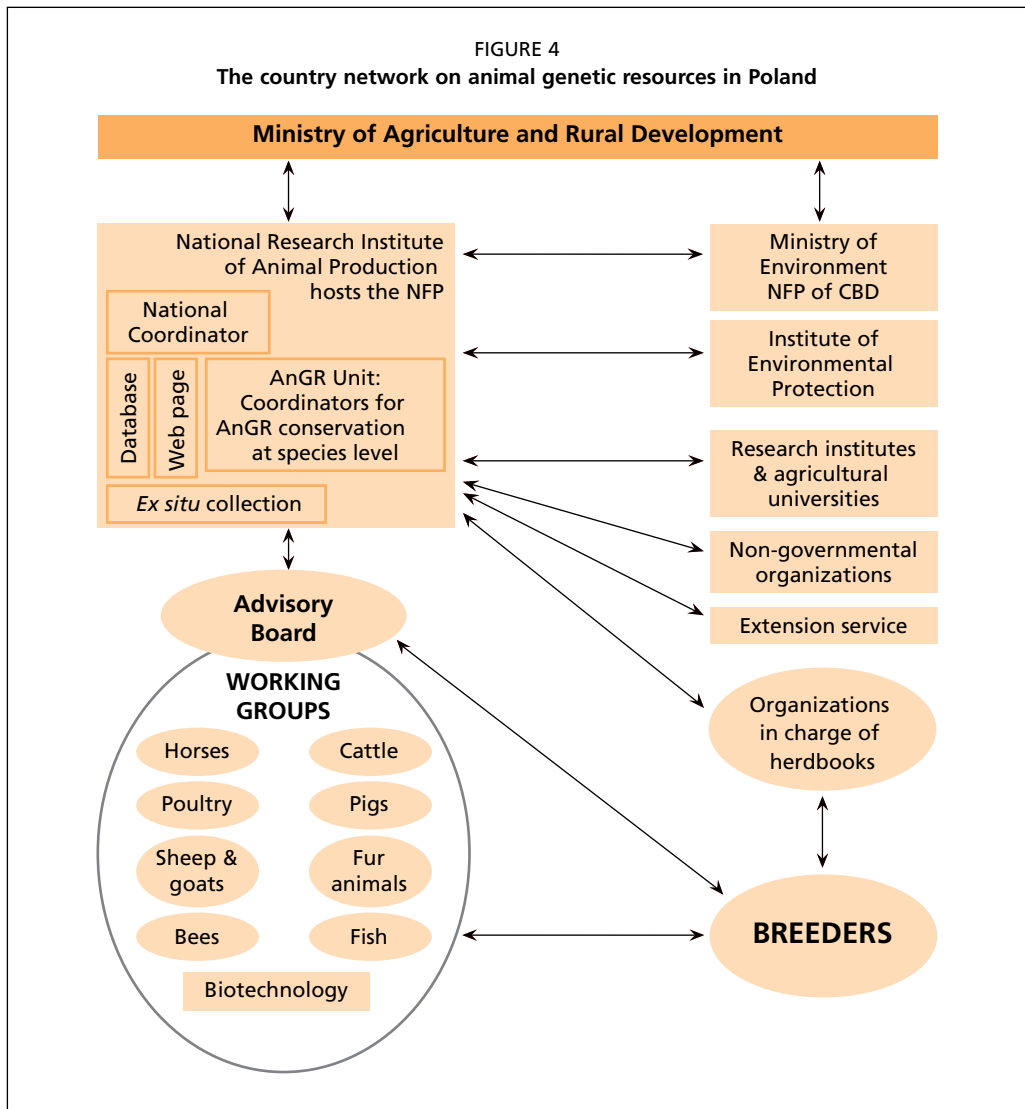
Policy development

- facilitating and contributing to the establishment of a legal framework for AnGR management, and undertaking initiatives to review, develop or strengthen national legislation;
- advocating and supporting the establishment of a legal obligation to sustainably use and conserve AnGR;
- coordinating the development of a National Strategy and Action Plan for AnGR;
- contributing to the development of national livestock policies and strategies; and
- contributing to the development of a national strategy and action plan on conservation and sustainable use of biological diversity (as required by Article 6 of the CBD) and a national strategy on agricultural biological diversity (if applicable).

Management of AnGR

- coordinating implementation of the National Strategy and Action Plan for AnGR;
- coordinating inventories of AnGR and monitoring trends in their populations;
- initiating and facilitating characterization of AnGR;





- establishing and managing the national AnGR database;
- guiding the introduction of animals from breeds not currently used in the country;
- supporting sustainable utilization of commercial breeds;
- establishing a country-based early warning and response mechanism;
- coordinating the implementation of *in situ* conservation programmes and the enhancement, monitoring, and assessment of such programmes;
- coordinating or initiating *ex situ* conservation programmes, including the establishment and management of a national gene bank for AnGR;
- coordinating the identification of research issues that will support the implementation of the National Strategy and Action Plan for AnGR;



- facilitating and supporting activities undertaken by other bodies that contribute to the implementation of the National Strategy and Action Plan for AnGR; and
- coordinating the mobilization of financial and other resources to support implementation of the National Strategy and Action Plan for AnGR.

Communication

- developing and maintaining close linkages with the Ministry of Agriculture, Ministry of Environment and other relevant governmental bodies, such as the National Focal Point for the CBD¹²;
- developing and maintaining close linkages with breeders' organizations and other stakeholders engaged in livestock production;
- developing and supporting the activities of the country network on AnGR;
- participating in the global network on AnGR, engaging with the Global Focal Point and (where established) the Regional Focal Point; and
- participating in DAD-Net – contributing material and sharing information with the national AnGR network.

Cooperation

- cooperating with breeders participating in conservation programmes and their organizations, and providing them with the necessary support and services;
- cooperating with all national AnGR stakeholders;
- supporting NGOs working in the field of AnGR utilization and conservation, and providing them with the necessary advice and services;
- participating in various activities undertaken and coordinated by the Global Focal Point (e.g. contributing to global surveys and assessments);
- participating in various activities undertaken and coordinated by the Regional Focal Point (if established); and
- developing bilateral cooperation with National Coordinators from other countries.

Education and public awareness

- publishing, disseminating and promoting the National Strategy and Action Plan for AnGR;
- participating in conferences and meetings to raise awareness on AnGR-related issues;
- preparing and publishing national red lists of local breeds at risk as a part of country-based early warning and response systems (FAO, 2009c);
- managing the national AnGR web site;
- disseminating information on success stories in the conservation of AnGR via the web site;
- preparing publications (books, leaflets, brochures, flyers, posters, etc.) that present livestock breeds and explain the need for sustainable use and conservation of AnGR;
- publishing articles on AnGR in newspapers and magazines;
- developing close relationships with the media – participating in shows, programmes, interviews, etc.;
- preparing videos/films on AnGR; and
- organizing exhibitions of native breeds.

¹² <http://www.cbd.int/information/nfp.shtml>



BOX 16

Management of animal genetic resources in Chile

A major policy goal of the Chilean Government, implemented by the Ministry of Agriculture, is to consolidate the country's position as a key global player in food and forestry. Under this framework, the development and sustainable use of AnGR are key strategies for enabling Chilean animal products to reach export markets in a competitive way – considering quality as the main issue. To implement these key strategies, the government is working with the private, academic and NGO sectors in three areas:

1. family rural agriculture;
2. technological innovation in animal production and genetic improvement; and
3. conservation of strategic genetic resources for food and agriculture.

The country has developed policies and planning instruments to support initiatives in these areas and has made competitive public funds available. Initiatives include:

- the National Policy for Cattle and Sheep Genetic Improvement, which aims to increase the competitiveness of production in the primary and industrial beef and lamb sectors. This involves developing an institutional framework to coordinate and address the National Plan of Action on Livestock Genetic Improvement, including the implementation of breeding and marker-assisted selection mechanisms for different production systems, and products, and implementing a national capacity-building strategy to promote the development of human resources and institutional capabilities in animal breeding and genetics;
- the Cattle Consortium and Agro-industrial Clusters, which identify and support stakeholders in the dairy, beef and lamb production chains, and promote strategic national and regional alliances among cattle producers' associations, processors, technical services providers and markets. The goal is to increase productivity and generate higher added value animal products by improving management, production and manufacturing practices as well as facilitating access to new and competitive markets;
- development of participatory programmes to improve the utilization of local breeds in poor communities to contribute to food security and poverty alleviation strategies; and
- initiatives that promote trade in local and under-utilized products from rural and indigenous production systems in the south of Chile.

At present, the government is working with FAO on the elaboration of a National Plan of Action for the Conservation and Sustainable Use of Animal Genetic Resources as a basis for implementing the *Global Plan of Action* at national level.

A database of information on national stakeholders is available from the National Coordinator, who also provides information on national and global AnGR issues to stakeholders at various national meetings. The participation of Chile in the ITWG-AnGR and the CGRFA is instrumental in the elaboration of national and regional AnGR projects and strategies.

Provided by Teresa Agüero Teare, National Coordinator of Chile.



Global reporting

- updating the national database in DAD-IS (or regional database if applicable) on a regular basis (FAO, 2009d,e); and
- initiating and coordinating preparation of country progress reports on the implementation of the *Global Plan of Action* (FAO, 2009d).

Specific tasks related to intergovernmental processes

- contributing to the work of the ITWG-AnGR:
 - becoming a member of country delegations to the sessions of the ITWG-AnGR;
 - studying documentation and consulting with government to develop country negotiating positions;
 - communicating with other National Coordinators, especially members of the ITWG-AnGR to develop regional positions, as appropriate; and
 - preparing a report from each meeting, debriefing government officials and implementing actions recommended by the ITWG-AnGR.
- participating in the activities of the CGRFA:
 - becoming a member of country delegations to the sessions of the CGRFA;
 - studying documentation and consulting with government to develop country negotiating positions;
 - communicating with other National Coordinators to develop regional positions, as appropriate; and
 - preparing a report from each meeting, debriefing government officials and implementing actions decided upon by the CGRFA.
- contributing to the work of the CBD, the COP, SBSTTA and other bodies operating under the CBD, as appropriate:
 - following developments within the framework of the CBD that are relevant and may affect AnGR conservation, sustainable use, or access and benefit sharing;
 - communicating regularly with the national CBD Focal Point;
 - studying relevant documentation and contributing to the development of country negotiation positions;
 - communicating with other National Coordinators to develop regional positions, as appropriate;
 - becoming a member of country delegations, if required; and
 - preparing a report from each meeting and debriefing government officials (relevant departments in the Ministry of Agriculture).

Given the broad scope of their responsibilities and activities, National Focal Points will only be able to operate fully and effectively if they have sufficient support staff. This is especially important given the opportunities for AnGR-related development that are arising as a consequence of the adoption of the *Global Plan of Action* and the development or updating of the National Strategies and Action Plans for AnGR. The level of staffing needed by the National Focal Point will depend on the size of the country, and its governance and administrative structure, as well as the extent of the activities that need to be undertaken in implementing the *Global Plan of Action* at national level.



BOX 17

Country-based early warning and response system for animal genetic resources in Germany

Key components of Germany's early warning and response system include:

A national policy and legislative framework that includes the following elements:

- an Animal Breeding Act;
- a National Programme for the Conservation and Sustainable Use of Animal Genetic Resources; and
- the agro-environment programmes of the *Laender* co-financed by the European Union.

Institutional arrangements that include the following elements:

- clearly defined roles for institutions at political, operational, and research and development levels;
- an advisory group – the National Committee on Animal Genetic Resources;
- a National Coordinator;
- a National Focal Point for the National Inventory (Database) for Animal Genetic Resources;
- breeders' organizations.

A monitoring system for breeds at risk that has been implemented for the major species to provide the basis for improved risk-status classification and further development of response mechanisms.

A risk-status classification system that is based on the following categories:

- phenotypic conservation population (PCP) $N_e < 50$
- conservation population (CP) $50 < N_e < 200$
- monitoring population (MP) $200 < N_e < 1000$
- non-endangered population (NE) $N_e > 1000$

Classification is at present based upon N_e (effective population size*) with additional expert input from the National Committee; in the future it will be based on population parameters derived from pedigree data of individual animals.

A priority-setting system for breed conservation that is based on the following approaches:

- phenotypic conservation populations – cryoconservation and *in situ* measures;
- conservation populations – measures to stabilize the effective population size;
- monitoring populations – monitoring and (if the number of adult males falls below 100) semen cryoconservation;
- non-endangered populations – regular estimation to evaluate population trends.

Data and information management involving the following elements:

- herd books kept by breeders' societies

cont.



- the national inventory – Central Documentation for Animal Genetic Resources (TGRDEU: <http://tgrdeu.genres.de/>) which provides data for:
 - Red List of Endangered Indigenous Farm Animal Breeds in Germany;
 - support programmes at European Union, national and *Laender* levels;
 - EFABIS and DAD-IS; and
 - other requests.

Breed recovery teams and recovery plans including the Precaution Action Plan for Disease Control for Animal Genetic Resources and case studies of recovery plans.

Regional and global collaboration.

National, regional and global reporting and communication mainly via TGRDEU.

Provided by Frank Begemann, Information and Coordination Centre for Biological Diversity (IBV), Federal Office for Agriculture and Food (BLE), Bonn, Germany.

$$* N_e = \frac{4 \times m \times f}{m + f}$$

(m= number of male herd book animals, f= number of female herd book animals)

As appropriate, the Ministry of Agriculture should provide financial resources (minimum regular budget on an annual basis) to the National Coordinator and staff. Given the many tasks of the National Focal Point, and the instrumental role of the National Coordinator, the position of National Coordinator is likely to require full-time staffing, sufficient seniority and an official mandate. Other staff may work for the National Focal Point on a part-time basis. Ideally, the National Focal Point should report directly to the Minister of Agriculture.

It is essential that the National Focal Point establish, as appropriate to national circumstances and the institutional framework of the livestock sector, effective and reliable lines of communication with relevant government agencies, livestock keepers and other stakeholders in the livestock sector including commercial operators, special interest groups (including both agricultural and environment groups) and civil society organizations. The National Focal Point should maintain active working relationships with agencies and organizations involved in preparing and implementing livestock development policies and programmes. Strong links with these groups are essential if the management of AnGR is to be integrated effectively into national agricultural and environmental policies. Where breed societies or breeders' or farmers' groups exist, or if they can be established, their contribution will be invaluable in supporting the work of the National Focal Point.

Given the importance and relevance of many of the programmes of work of the CBD, close collaboration with the ministry responsible for implementation of the Convention is required. In most countries, the National Focal Point for the CBD is located within the Ministry of Environment. Maintaining good working relationships with other bodies involved in the implementation of the CBD is also highly recommended in order to minimize duplication of government efforts and address gaps in policy and in the management of the country's biodiversity, including its AnGR.



BOX 18

Mobile facility for semen collection in the Czech Republic

Pursuant to the specific statutory provisions regarding AnGR that are included in the Animal Breeding Act, the Institute of Animal Science, acting as the National Coordinating Centre for AnGR, was appointed in 2000 by the Ministry of Agriculture to coordinate activities approved within the national programme on the conservation and utilization of genetic resources for food and agriculture.

The most remarkable activity undertaken by the National Coordinating Centre has been the implementation of an *ex situ* conservation programme for endangered local breeds and species. For various reasons, during the last several years there was no interest in producing semen from local pig, sheep and goat breeds on a commercial basis for artificial insemination or gene bank collections. Breeders' associations had no funds to provide such services themselves, while breeding companies had no interest in investing in a niche market for local breeds. As a result, the artificial insemination centres for small livestock were closed. It is also important to understand that the endangered local breeds are mostly kept on small private or hobby farms, which are often located in mountainous and remote areas.

To overcome these difficulties, the National Coordinating Centre has established a mobile laboratory for collecting and processing fresh semen from rams, bucks and boars directly on farms. The laboratory – equipped with all the necessary facilities and operated by skilled personnel – is set up in a van. It is possible both to conduct a full examination of the collected semen and to deep freeze standard semen doses on the spot. The semen can then be transported to the central gene bank. In the last three years, the National Coordinating Centre has used the mobile lab to collect semen from all existing breeding lines of the local Prestice pig, Valachian and Sumavska sheep, and White and Brown Short-haired goat breeds.

Another special feature of the programme is the establishment of an *ex situ in vivo* collection of local breeds in the so-called Genetic Park, located near Prague. It supports education and awareness-building on the importance of local breeds and their role as living national heritage.

Provided by Vera Matlova, National Coordinator of the Czech Republic.

Effective communication requires that information is targeted to specific audiences, utilizing the most effective modes of communication for each audience. The National Focal Point should be very thorough in selecting target audiences and in identifying the most effective communication means available: internet, printed material, film, radio, television, etc.

Good communication can be cost and time effective if countries take advantage of existing communications networks. It is important to ensure that all individuals involved in the work of the National Focal Point, particularly persons previously involved in the preparation



of the country report or currently in developing and implementing the National Strategy and Action Plan for AnGR, communicate their work to their organizations and co-workers.

Internationally, effective lines of communication should be established with the Global Focal Point, FAO regional and subregional offices, Regional Focal Points (where established) and to National Focal Points in other countries, especially those with similar interests.

Networking among National Coordinators is facilitated by the availability, via the DAD-IS web site, of a database containing the contact details of all National Coordinators and their host institutions. DAD-Net allows messages to be communicated to a wider global AnGR network. Use of DAD-Net will be enhanced if National Coordinators further promote the network among their national AnGR stakeholders.

THE NATIONAL ADVISORY COMMITTEE

In many countries, the National Focal Point benefits from contributions and advice from individuals involved in the management of AnGR, especially the input provided by breeders and livestock keepers. The establishment of the National Focal Point has often been followed by the formation of a national AnGR network led by a multistakeholder National Advisory Committee on AnGR.

The SoW-AnGR reporting process enhanced and strengthened institutional development at country level through the establishment of National Consultative Committees for AnGR in 145 countries. National Consultative Committees were considered key overseeing bodies in the preparation of country reports, and their establishment was recommended in the *Guidelines for the development of country reports* (FAO, 2001). Each National Consultative Committee had a nominated chairperson and a technical secretary. Their diverse memberships often involved both scientific and policy expertise. In countries that had not set up a National Focal Point prior to the preparation of their country report, the existence of National Consultative Committees facilitated the establishment of National Focal Points as permanent structures and the nomination of National Coordinators (FAO, 2004b). In many countries, the important role of National Coordinators was underlined during the SoW-AnGR reporting process. Countries were encouraged to involve a wide range of stakeholders – from governmental, non-governmental (e.g. breeders' associations) and commercial sectors – in their National Consultative Committees. Institutions of the National Agricultural Research Systems played a leading role in the process and were actively involved in nearly all National Consultative Committees.

The National Consultative Committees also provided an important means of supporting overall AnGR management activities and promoting the involvement of stakeholders. Taking this experience into account, the CGRFA at its Tenth Regular Session recommended that after the completion of country reports, National Consultative Committees should be maintained and further developed to serve as National Advisory Committees to National Focal Points (FAO, 2004c).

A country's National Advisory Committee will be most effective if it includes representatives from national and subnational government and a wide range of relevant livestock-sector organizations. Key candidates for participation in the National Advisory Committee include representatives of the following bodies and groups:

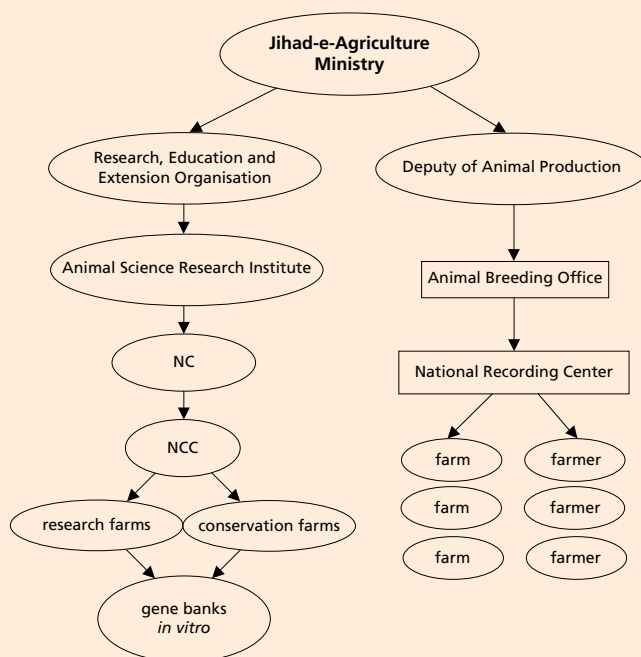


BOX 19

The Animal Genetic Resources Programme of the Islamic Republic of Iran – organizational structure

The Ministry of Jihad-e-agriculture carries the responsibility for registration, utilization, conservation and preservation of AnGR in the Islamic Republic of Iran. Within the ministry, two deputies have to organize work related to AnGR: the deputy in charge of the Research, Education and Extension Organization (AREEO) and the deputy of Animal Production. The National Coordinator is nominated by AREEO. All decisions regarding AnGR research issues are taken by the Animal Science Research Institute (ASRI), which is under the umbrella of AREEO.

There are several *in situ* and *ex situ*, *in vivo* and *in vitro* facilities for conservation of different species and breeds of livestock under the authority of the two deputies. There are also several projects for the utilization of indigenous breeds that are organized and financed by the two deputies. The National Consultative Committee was established to prepare the country report (contributing to the SoW-AnGR process) and to guide the long-term development of the AnGR programme. The main executive responsibilities are implemented by ASRI and the deputy of Animal Production. The diagram below shows the schematic organizational framework for AnGR management.



Provided by Mohammad Ali Kamali, National Coordinator of the Islamic Republic of Iran, Director of Animal Sciences Research, Ministry of Jihad-e-Agriculture.



BOX 20

Animal genetic resources – living in both worlds

AnGR have been the foundation of livelihoods in Thailand, an agricultural country. The livestock sector has developed from subsistence farming to export-oriented production, as happened in the crop sector following the green revolution. AnGR are considered one of the key ingredients of the food production system.

Thailand has been a signatory to the CBD since 1992 and ratified it 2004. The linkage between the environmental agreement and agriculture – in the thematic area agricultural biodiversity – has been established through the National Biodiversity Strategy and Action Plan. The Department of Livestock Development participated in the preparation and implementation of the National Biodiversity Strategy and Action Plan, as did the National Advisory Committee and other related bodies.

But what is the reality? Conservation and sustainable use of the components of biodiversity are desirable both in the world of the environment and the world of agriculture. Both share a common goal: sustainable development. Although they share an objective – achieving sustainable development – policies in agriculture and biodiversity management have not converged. Biological and genetic resources have been considered as inputs to the food production system and economic development. As the output of agro-industry has increased, agriculture has come to be perceived more as a trade-related sector than as a matter of inheritance passed from generation to generation. Concerns about the environment and natural resources focus only on the resources found within protected areas, for which laws and regulations already exist. A common and agreed definition of “conservation and sustainable use” of biological and genetic resources in agriculture and in the environmental sector is needed so that the concepts can be better interpreted and better incorporated into policies in the respective sectors.

Agricultural development policies and annual budgets emphasize food safety and animal health. The empowerment of the private sector in food production for domestic and export markets has been appreciated. Food-safety regulations may lead to monopoly in food markets and a future in which there will be only “agricultural labour” and no “farmers”.

AnGR are “invisible” in both agricultural trade and conservation policy. The primary reasons include the lack of capacity and human resources and the lack of communication and awareness.

The alternative could be an approach based on the idea that animal breeding and production systems are the core vertical basis of the livestock sector and that conservation of biodiversity is an important cross-cutting policy area for livestock development. The livestock sector must develop in a way that allows it to cope with upcoming global issues and international agreements, including those in the fields of access and benefit-sharing of genetic resources, intellectual property rights and climate change. The *Global Plan of Action*, adopted by FAO member countries in 2007, not only provides the linkage between agricultural biodiversity and food security, but also provides political support for ongoing AnGR work within countries.

Provided by Vanida Khumnirdetch, National Coordinator of Thailand; Chair, Fifth Session of the ITWG-AnGR.



BOX 21

The National Focal Point in Uzbekistan

Since 2007, work related to the management of AnGR has been carried out in the Republic of Uzbekistan. Through the efforts of specialists and with the support of the Ministry of Agriculture and Water Resources of the Republic, several expeditions were conducted to inventory, determine and refine the breeding range of Bushuevskiy cattle. The population sizes of the Karabairskiy horse breed and Karakul sheep were also determined.

Some work has also been done on the legal framework for the livestock sector. New laws have been adopted and the resource base for development of the livestock industry has been established. Several breeders' organizations for different breeds and animal species have also been set up. In order to improve breed quality and to upgrade the genetic potential of the cattle population, about 15 000 head of different cattle breeds were brought to the country from abroad. In total, 332 cattle breeding farms, 110 pedigree Karakul sheep farms, a network of horse breeding farms, and breeding centres for other species have been established in the Republic. Research centres for fish farming and poultry farming have been established.

The Republic's artificial insemination station "Uznaslchillik" has imported high-tech German Minitüb (Minitube) line to process and package bull semen. The artificial insemination station keeps 45 high breeding value bulls representing several breeds. At present, breeding farms can use only deep-frozen semen. The semen bank has 3.5 million semen doses from various cattle breeds. For each cattle breed, a gene pool has been created, with long-term storage of 1 000 doses from each bull used in artificial insemination. There is a need to develop a system for collecting, processing and storing genetic material of all breeds and species of livestock kept in the Republic.

One of the main problems faced by breeders is the, sometimes unplanned, expansion of modern breeds in the traditional areas of local breeds. In addition, the spread of cross-breeding with modern or exotic breeds leads to the degradation of breed diversity.

The recent period has been devoted to description, cataloguing and inventorying certain breeds. Unfortunately, there was no opportunity to carry out these activities for all livestock species kept in the Republic.

There is a need to establish a centre for electronic processing of information and databases for all livestock species and develop a comprehensive strategy for the management of AnGR. A research institute working on Karakul sheep and the ecology of deserts and the Livestock Research Institute are involved in these activities. These organizations work on developing a strategy for animal husbandry that should include both the conservation of AnGR and their sustainable use.

Priorities for AnGR sector include:

- conducting a complete inventory and certification of all livestock species;
- adopting laws on inventory, certification and cataloguing of livestock and AnGR;
- establishing an information centre to collect and process information;
- adopting common standard methods for evaluating breeding values; and
- establishing gene banks for all livestock species.

Provided by Yusup Ibragimov, Training Specialist, United Nations Development Programme in Uzbekistan.



- the Ministry of Agriculture;
- local government;
- governmental organizations;
- research and scientific institutions;
- breeders', farmers', herders' and pastoral peoples' associations;
- breed associations;
- extension services;
- insemination organizations;
- interest organizations, both professional organizations and civil-society organizations such as marketing boards and consumer organizations;
- commercial and private companies; and
- development and technical-cooperation organizations.

The National Advisory Committee should play an important role in the work of the National Focal Point. The members of the National Advisory Committee can be instrumental in ensuring effective communication among their peers and within the organizations they represent. Their potential contribution to the implementation of the National Strategy and Action Plan for AnGR is enormous, especially if their work is facilitated and coordinated by the National Coordinator.

Selection of the members of the National Advisory Committee should take into consideration:

- their professional background;
- their degree of personal interest in participating;
- their involvement and contribution in the field of AnGR management; and
- the institutions they represent.

The membership of the National Advisory Committee needs to be well balanced, ideally representing all relevant stakeholders as well as major technical areas of expertise, including cross-cutting areas such as biotechnology and communication. The Ministry of Agriculture may wish to ensure that members of the National Advisory Committee are officially nominated by their organizations.

Experience indicates that the work of National Advisory Committee members is usually carried out on a voluntary basis, and in many cases requires substantial time and commitment. Therefore, efforts should be made to acknowledge the contributions of the members.

Based on experience from existing arrangements, the primary functions of National Advisory Committees include the following (FAO, 2009f):

- providing guidance on the process of preparing the National Strategy and Action Plan and identifying its main objectives;
- developing a vision statement to initiate the process of preparing the National Strategy and Action Plan and developing awareness and support among key AnGR stakeholders;
- overseeing and evaluating progress in preparing the National Strategy and Action Plan;
- liaising with the organizations represented on the National Advisory Committee and network-building to ensure effective communication among diverse interest groups;



- participating in relevant conferences, meetings and workshops to build support for the preparation and implementation of the National Strategy and Action Plan;
- assisting in the identification and validation of the strategic priorities and actions that will provide the main elements of the National Strategy and Action Plan;
- mobilizing support and financial resources for the preparation and implementation of the National Strategy and Action Plan (e.g. through developing partnerships and assisting interactions with donors);
- establishing criteria for evaluating progress in the implementation of the National Strategy and Action Plan;
- supporting official endorsement of the National Strategy and Action Plan by the Ministry of Agriculture;
- monitoring and evaluating progress in the implementation of the National Strategy and Action Plan;
- updating and revising elements of the National Strategy and Action Plan, as and when required; and
- evaluating the performance of the National Focal Point.

Experience suggests that it is important for the National Advisory Committee to elect a prominent individual from the AnGR sector to serve as chair. The size of the National Advisory Committee will depend on the specific circumstances of the country. Many existing committees have a membership of between 15 and 20. The National Coordinator should be a member of the National Advisory Committee.

The National Coordinator should be provided by the relevant ministry with specific terms of reference for his/her work. The National Advisory Committee is likely to be well placed to assess the performance of the National Coordinator in meeting these terms of reference. If required, the chair of the National Advisory Committee may communicate this assessment to the relevant authorities.

WORKING GROUPS AND SUBSIDIARY BODIES

While taking into account the leading role of the National Advisory Committee in overseeing and supervising the activities of the National Focal Point, it may be beneficial to create subsidiary bodies, such as working groups, scientific committees or expert groups. The creation of such additional bodies will depend on country needs and on the resources available. For instance, a standing science and research working group might be considered as a means of providing ongoing science-based advice on issues that may arise during preparation and implementation of the National Strategy and Action Plan. Such a group might also play a role in identifying new and emerging methodologies and technologies that can be drawn upon to enhance the sustainable use, development and conservation of AnGR.

Another option would be to consider establishing a number of livestock species-specific working groups (e.g. for cattle, horse, sheep, goat, pig or poultry genetic resources – according to the needs and priorities of the country). These working groups might also be asked to focus on particular AnGR management issues (e.g. surveying, monitoring and data management; characterization; *in situ* and *ex situ* conservation; or sustainable use).

Working groups and expert groups would have the potential to play a significant role



in the development of the National Strategy and Action Plan from the early phases of the planning process. They might also be put in charge of overseeing status and trends assessments for particular livestock species. Experts from species working groups would also be in a good position to provide specific recommendations on priorities and actions for the respective species, and to supervise the implementation of conservation and sustainable use programmes.

Depending on the state of development of the national AnGR programme, it may be appropriate to establish permanent working groups or, alternatively, to create them on an ad hoc basis to address specific issues. Given the important roles that will be played by working-group members, their selection requires careful consideration.

Decisions regarding the appointment of members to serve in the various bodies established to support the National Focal Point are of crucial importance to its success. The chosen individuals should be well respected within the livestock community and their personal contributions should be well recognized. They should express an ongoing interest in research or management of AnGR and show willingness to contribute to the work of the National Focal Point. Their ability to work in, or lead, a team is also very important.

While balanced representation is an important consideration in selecting members of working groups, the over-riding selection criteria should be expertise and commitment to the required tasks. As in the case of the National Advisory Committee, individuals selected for working groups should be officially nominated by the ministry responsible for the National Focal Point.

COUNTRY NETWORKS ON ANIMAL GENETIC RESOURCES

Experience has shown the importance of developing a broad network of people that are involved or interested in aspects of AnGR management. Such a network is a valuable means of ensuring that stakeholders have access to up-to-date information on AnGR management and facilitating interaction among them.

An AnGR network may include formal and informal arrangements for networking among individuals and organizations. The National Advisory Committee, working groups and expert groups are key elements. It is very important to the long-term operation of the National Focal Point that the roles and responsibilities of all bodies created within this framework are clearly defined and generally accepted by the members. If, for instance, species-specific working groups are created, their individual members may be responsible for monitoring the implementation of conservation programmes for breeds within the respective species and for providing the working group with reports on the progress of these programmes. They may also contribute to the monitoring of populations considered to be at risk or potentially at risk, and when necessary propose the initiation of conservation measures. If the members of the working group are well rooted at local level, their awareness of specific local problems and needs should be very valuable in enabling them to stimulate appropriate actions on the part of the National Focal Point.

As mentioned above, the members of the National Advisory Committee and working groups usually work on voluntary basis. However, some of their expenses, such as the costs of attending meetings or other travel that they have to undertake to meet their AnGR



mandate, should be covered. This requirement has to be taken into account when the establishment of the official country network is being considered. Unfortunately, financial implications may influence both the number of the subsidiary bodies that can be created and their composition.

Developing good working relationships between the National Coordinator and the members of the country network is critical to the overall success of the National Focal Point. The National Coordinator should be able to rely on the country network for advice and support. It is important to make sure that members of the network are consulted and involved as much as possible, that they are regularly updated on new developments, that they have their own tasks and responsibilities, and that their expertise and contributions are appreciated and properly acknowledged. While the National Coordinator usually represents the country in the global AnGR network, at the national level the National Coordinator should be supported by a strong, well-developed, professional and competent country network.

In addition to the official national AnGR network, it is also important to develop a broader network of people that may be involved or interested in various aspects of AnGR-related work. This informal network may include individual breeders, farmers and pastoralists who are participating in conservation programmes; professionals involved in animal breeding and reproduction; university staff and students; researchers; and members of civil society organizations. Providing this broad layer of stakeholders with access to AnGR-related publications and other materials and enabling them to interact with members of the official network on AnGR will enhance knowledge and awareness of AnGR issues and may lead to stakeholders becoming more closely involved in the work of the National Focal Point.

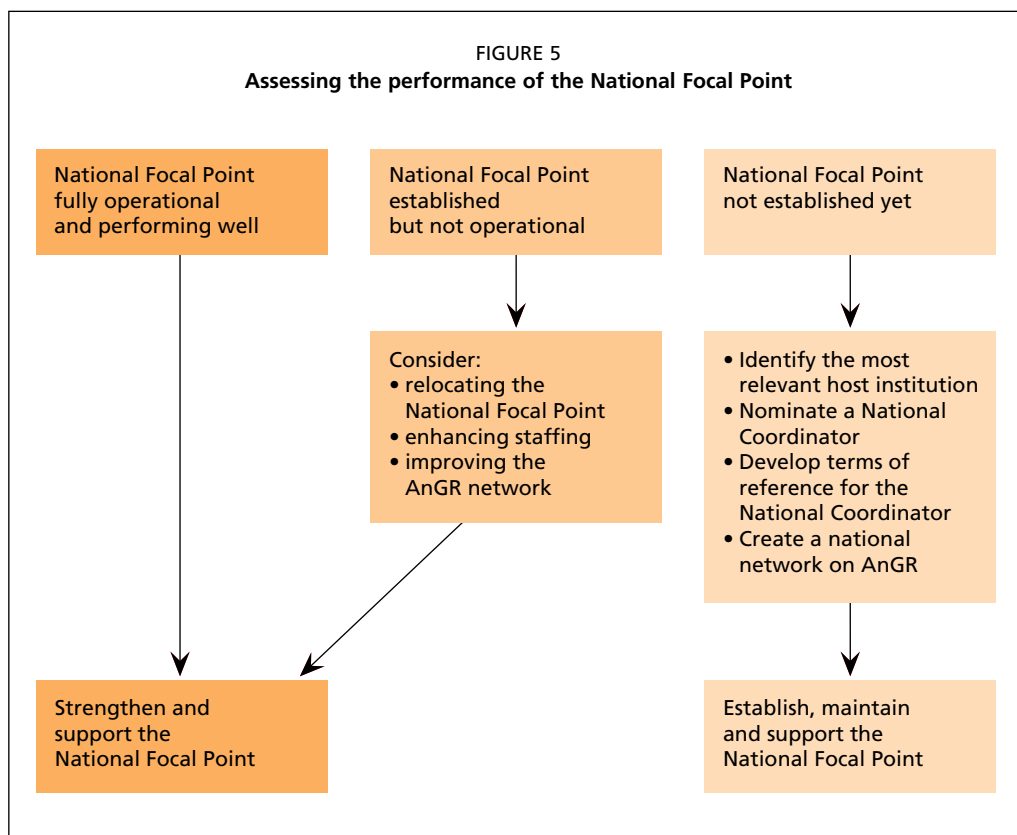
An effective network will allow stakeholders to follow the process of preparing the National Strategy and Action Plan and to contribute when appropriate. A strong and well-integrated AnGR network will also be highly beneficial in the long term as a means to assist in the mobilization of the human and financial resources needed for implementing the National Strategy and Action Plan.

ASSESSING THE PERFORMANCE OF THE NATIONAL FOCAL POINT

Given the essential role of National Focal Points in the preparation and implementation of National Strategy and Action Plans, countries may wish to assess the performance of their National Focal Point and if necessary take remedial action. Figure 5 summarizes potential steps in such an assessment, and actions that might be taken to ensure that the country's National Focal Point performs effectively.

The evaluation process can be based on a SWOT analysis, i.e. an assessment of the strengths and weaknesses of the National Focal Point, the opportunities available to it and the threats that may affect its operation. Considering all four of these elements will provide an understanding of what needs to be improved in the operation of the National Focal Point and possible means for achieving these improvements. Enhancing the capabilities of the National Focal Point and ensuring that it operates effectively over the long term is essential for national AnGR management and is a prerequisite for successful implementation of the *Global Plan of Action* at country level.





Although the situation in each country is unique and very specific, there are certain structural elements and approaches that are likely to be relevant in most circumstances. These include the structure of the National Focal Point and its linkages with other organizations and institutions. The checklist presented below presents elements that may need to be considered when assessing the current structure and operation of the National Focal Point.

The National Advisory Committee, as a multistakeholder supervising body, is well positioned to consider the current arrangements of the National Focal Point, evaluate its performance and, if required, present the outcomes of this evaluation to the government. If a National Advisory Committee has not yet been established, these tasks might be undertaken by the National Coordinator.

A CHECKLIST FOR THE ESTABLISHMENT AND OPERATION OF THE NATIONAL FOCAL POINT

The following checklist can be used as a basis for establishing or assessing the performance of the National Focal Point.

1. Countries, that have not done so yet, should identify an institution to host the National Focal Point for AnGR and an individual to serve as National Coordinator.



BOX 22

The Animal Germplasm Network in Argentina – conservation by use

Argentina has established and strengthened a network of animal germplasm banks for six animal species: cattle, sheep, goats, honey bees, chickens and guanacos, which are hosted by the National Institute of Agricultural Technology (INTA). Some universities collaborate with the germplasm banks. The banks are run under an “active” approach, which means that introduction of animals and their genetic materials to the banks is dynamic, and that animals can be interchanged.

There are ten active germplasm banks in the country maintaining live animals. As well as being conserved, the genetic lines or breeds are continuously characterized and evaluated. There is also a cryogenic bank containing semen and embryos.

In many cases, the banks promote participatory breeding activities that are undertaken jointly with breeders. One example of such an approach involves a local ecotype of Criollo goat found in Patagonia and kept by small-scale farmers on common grazing areas. The breeders define their own selection objectives – focused on maintaining adaptation to local production conditions and enhancing meat quality – in collaboration with scientists. This genetic resource provides the basis of these people’s livelihoods and has a tremendous social impact.

Another example is the collaboration between INTA’s germplasm banks and the Breeders’ Association of Criollo Cattle, which maintains genetic variability and enhances breed performance based on scientific procedures. Here also, the breeders define their selection objectives.

Provided by Carlos Mezzadra, National Coordinator of Argentina.

2. The National Coordinator should meet the following criteria:
 - have a high level of professional competence in the area of AnGR management;
 - be fully conversant in an official FAO language, preferably English;
 - be computer literate;
 - be an effective communicator and motivator; and
 - have demonstrated leadership and human-management skills.
3. The establishment of the National Focal Point and nomination of the National Coordinator, with full contact details, should be reported to the Global Focal Point.
4. Wherever possible, the National Coordinator should have an official mandate and sufficient seniority, and should be dedicated full-time to the management of AnGR.
5. A multistakeholder National Advisory Committee on AnGR should be appointed by the Minister of Agriculture or other relevant authority, with representation from governmental agricultural and environmental departments; farmers’ organizations; breeders’ groups; indigenous peoples’ organizations; local government; community leaders; university or other research institutions; technical experts involved in research, training or



extension; agricultural and livestock business interests; civil society organizations; and other relevant interests.

6. Taking into account country-specific needs, structure and complexity, the National Focal Point should attempt to establish working groups for each major species, geographic region of the country and/or areas of AnGR management.
7. Working groups should facilitate and support various AnGR management activities, including breed inventories, monitoring, characterization, genetic improvement and conservation.
8. The National Focal Point should involve breeders' associations and species experts to provide advice on specific AnGR management requirements, to identify priorities and opportunities for sustainable use, development and conservation programmes, and to support monitoring and reporting.
9. The National Focal Point should develop strong national linkages within the agricultural sector to promote the integration of the National Strategy and Action Plan for AnGR with livestock-sector development activities, and genetic-improvement programmes for mainstream breeds, thereby maintaining and strengthening the foundation for future livestock development, and achieving an appropriate level of recognition of the value of AnGR as part of the overall biological diversity of the nation.
10. The National Focal Point should establish strong communication links with the national and subnational government agencies that are responsible for biodiversity strategies, to encourage integration of agrobiodiversity and AnGR issues into the national biodiversity strategy.
11. The National Focal Point should, in cooperation with other government agencies, promote consideration of the unique needs of genetic resources for food and agriculture by the Conferences of the Parties to the CBD and the meetings of the SBSTTA.
12. The National Focal Point should coordinate the step-wise collection and validation of data on national AnGR and establish a national database. The database should be updated on a regular basis to enable informed decision-making.
13. The National Focal Point should implement AnGR monitoring programmes to determine the risk status of the country's AnGR and identify needs for conservation measures.
14. The National Focal Point should regularly prepare reports on the status and trends of the country's AnGR populations, ensuring that the data and information collected are made available in formats that fulfil national, regional and global reporting obligations.
15. The National Focal Point should maintain or develop the capacity to use and contribute to DAD-IS. National data should be entered into the DAD-IS breeds database to enable global assessment and reporting on the status of AnGR.
16. The National Focal Point should contribute to DAD-Net and promote membership of DAD-Net among national stakeholders.
17. The National Focal Point should identify specific education and awareness needs among government policy-makers, farmers and farmer groups, livestock keepers, breeders, agricultural business interests, members of the public and other relevant audiences, and target them with appropriate material using the most effective means of communication for each group. Communications and educational materials produced by FAO and



other organizations should be widely used for this purpose. In collaboration with FAO, material produced by FAO can be made available in local languages.

18. The National Focal Point should identify opportunities to utilize the communications systems and networks of existing organizations, including their newsletters, conferences, meetings and other events, to increase awareness of AnGR management.
19. The National Focal Point should promote research and the generation of scientifically sound experimental AnGR-related data. It should promote interest among the country's scientific community by communicating descriptive and comparative information using the full range communication modes that are available, including publishing papers in scientific journals (the journal *Animal Genetic Resources*¹³ is one option), making publications available in the DAD-IS library and contributing articles to the popular press.
20. The National Focal Point should identify opportunities to cooperate with countries that have common interests and with international agencies that are involved in AnGR management, to share data, information, techniques and expertise.
21. The National Focal Point should attempt to establish linkages with scientists, development specialists and other professional staff in international organizations that may assist with the country's management of AnGR.
22. The National Focal Point should promote international sharing of AnGR under mutually agreed terms by:
 - communicating information regarding the country's AnGR to appropriate international agencies and other countries on request;
 - establishing projects to provide objective, comparative characterization of the country's AnGR;
 - paying attention to health issues that restrict international movement of germplasm; and
 - providing comprehensive assessments of opportunities and risks involved in the use of non-indigenous germplasm in livestock production systems within the country.
23. The National Focal Point should facilitate the process of preparing the National Strategy and Action Plan for AnGR in order to implement the *Global Plan of Action* at national level. This includes:
 - considering the FAO guidelines *Preparation of national strategies and action plans for animal genetic resources*, which outline a step-by-step process for preparing and endorsing a National Strategy and Action Plan (FAO, 2009f);
 - preparing a comprehensive list of stakeholders, including relevant government agencies, livestock keepers, breeders' groups, local government or community leaders, agricultural business interests, environmental groups, indigenous people, livestock importers and exporters, universities and other research institutions, and any other interested individuals or groups that could potentially contribute to the development and implementation of the National Strategy and Action Plan;

¹³ <http://journals.cambridge.org/action/displayJournal?jid=AGR>;
previous volumes: http://dad.fao.org/cgi-bin/EfabisWeb.cgi?sid=-1,refcat_50000044.

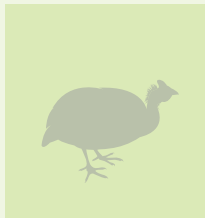
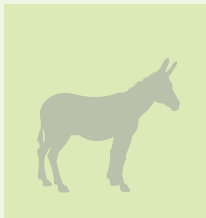


- preparing a time schedule for the development of the National Strategy and Action Plan; and
 - identifying training and other capacity-building needs for development and implementation of the National Strategy and Action Plan, and with assistance from international agencies, determining sources of funding, expertise and technology.
24. The National Focal Point should establish strong linkages with the Regional Coordinator for Management of AnGR (if the position has been established), and with the Global Focal Point to ensure that the National Strategy and Action Plan contributes appropriately to the implementation the *Global Plan of Action*, and to ensure that the international community recognizes each country's priorities and needs for assistance.
 25. The National Focal Point should evaluate progress in the implementation of the National Strategy and Action Plan annually and recommend any adjustments that are required. Evaluation should be based on performance indicators or measures. Each country should decide upon an appropriate set of indicators. The indicators should reflect all elements of the National Strategy and Action Plan: inventory, characterization and monitoring, sustainable use and conservation, policy and institutional development, capacity-building, etc.
 26. The National Focal Point should be provided by the Ministry of Agriculture, or other relevant ministry, with regular funding on the basis of a prepared annual budget. The National Focal Point should mobilize the funds, facilities and staff needed to administer the programme, support and facilitate activities undertaken by the country network, coordinate the development of the National Strategy and Action Plan and, as necessary, support other activities in support of the country's AnGR management.
 27. The National Focal Point should consider creative means to finance AnGR projects using domestic resources. Funding may be improved if AnGR management issues are mainstreamed within the hosting institution's annual work plans and agendas. In some countries, key stakeholders, such as breeding companies, research and training organizations, NGOs and representatives of community organizations, are also potential sources of funds.
 28. If necessary, the National Focal Point should, with the participation of the relevant government departments, establish strong links with international funding and development agencies, such as the World Bank and the Global Environment Facility, to determine their potential for assisting in the development and implementation of the National Strategy and Action Plan for AnGR.



SECTION 6

Roles and responsibilities of Regional Focal Points



Roles and responsibilities of Regional Focal Points

ESTABLISHMENT OF REGIONAL FOCAL POINTS

Since the early phases of the implementation of the Global Strategy, countries have made efforts to establish and maintain Regional Focal Points for AnGR where the need for them had been identified by countries within the respective geographical region. The key tasks of existing Regional Focal Points include:

- facilitating regional cooperation;
- providing technical assistance and leadership;
- collaborating in and coordinating training, research, and development of projects aimed at enhancing the use, development and conservation of AnGR; and
- facilitating and maintaining communication among National Focal Points.

The following subsections provide an overview of experiences in establishment of Regional Focal Points and a description of their main functions.

The Regional Focal Point for Asia

The Asian Regional Focal Point was the first Regional Focal Point. It was initiated by a five-year project (GCP/INT/144/JPN) titled “Conservation and Use of Animal Genetic Resources in Asia and Pacific”, financial support for which was provided by the Government of Japan. The Asian Regional Focal Point operated between 1993 and 1999. It involved 11 countries, with China as an observer.

The initiative was seen as a pilot scheme for the Global Strategy (FAO, 2000b). It demonstrated that a Regional Focal Point can play an important role in coordinating regional activities, and in providing a basis for identifying and facilitating technical support to countries. The project helped to increase awareness of the roles and values of AnGR in the Asia region, and resulted in the preparation of 11 country action plans for enhanced management of AnGR. The project also demonstrated the importance of providing support for National Coordinators, the critical role of the Regional Focal Point in this region, and the need for National Coordinators to meet regularly to exchange experiences.

Funding for the Asian Regional Focal Point by the Government of Japan ended in 1999. Since the end of the project, efforts have been made by the Animal Production and Health Commission for Asia and the Pacific (APHCA) and the FAO Regional Office for Asia and the Pacific to maintain the regional network of National Coordinators that was developed when the Regional Focal Point was fully operational. For various reasons it has not yet been possible to re-establish the Asian Regional Focal Point.

While the National Coordinators in the region continue to see the need for a Regional Focal Point and advocate its re-establishment, other arrangements are also being consid-



BOX 23

Why the Regional Focal Point in Asia was not continued

When the project was concluded in September 1999, the FAO Animal Production and Health Commission for Asia and the Pacific (APHCA) was asked if it wished to carry out activities of Regional Focal Point in the Asia region. This was agreed in November 2000. Although APHCA mandate covers all aspects of animal production, each member country had only one representative at that time, usually a veterinarian. Indeed, due to public safety concerns, the main emphasis of APHCA work in the late 1990s had been on veterinary and animal health matters. In addition, APHCA membership did not include all countries that had been participating in the regional project, while it included others that had not been involved.

It seems that insufficient attention was given to supporting AnGR coordination activities, and interest in this area was certainly much reduced after the project was completed. APHCA lacked personnel solely focused on AnGR matters, which is crucial in a region with such diverse AnGR and, globally, by far the largest livestock production. Given the fact that most countries appointed National Coordinators who are expected to carry out this function only as a part of their workload, it was essential that the Regional Focal Point was strong and active in the support it provided to National Coordinators in their planning and implementation of AnGR activities.

Asia has a history of importing exotic breeds, and even though these had not been entirely successful, the belief that the solution lay in such highly productive breeds was still prevalent at the political level. At the time when the project was carried out, many countries appeared to prefer importation to development and implementation of selection programmes for indigenous breeds, and funding agencies generally encouraged such an approach. In fact, it is debatable which came first – the requirement of the technical cooperation agency or the country request.

Therefore, the very positive experience of the regional project did not result at that time in sufficient priority being given to maintaining interest and ensuring a highly active Regional Focal Point. In my view, the key requirements to have a successful regional coordination are the commitment, the knowledge and the drive necessary to make things happen.

Provided by David Steane, Chief Technical Adviser, Project on Conservation and Use of Animal Genetic Resources in Asia, 1993–1999, (GCP/IRAS/144/JPN).

ered, such as establishing a number of Subregional Focal Points. Although such arrangements might be more practical, they would not result in region-wide collaboration.

A number of meetings have already been convened to consider and initiate subregional mechanisms for collaboration and coordination. In February 2006, an East Asia regional meeting on strategic priorities for action in AnGR management was organized in China.



Participants agreed on the need for regional cooperation in the management of AnGR, including research and capacity-building (FAO, 2006a). In June 2006, a Central Asia–Caucasian workshop was convened in Almaty, Kazakhstan on the “Sustainable Management of Animal Genetic Resources: Priorities, Policies, Capacity Building and Conservation”, with the participation of 12 countries (FAO, 2006a). The main objective of the workshop was to prepare for the establishment of a Regional Focal Point and to discuss strategic priorities for regional cooperation in the management of AnGR. The government of Kazakhstan offered to host a Regional Focal Point for Central Asia. All participating countries expressed appreciation for this offer, and signed a memorandum of understanding on regional cooperation.

In September 2009, a joint FAO/Kazakhstan Association for Animal Production workshop for National Coordinators and their alternates titled “Sustainable Management of Animal Genetic Resources: Development of Priorities, Policies and National Action Plans” was held in Almaty. In November 2009, a regional workshop for National Coordinators titled “Sustainable Management of Animal Genetic Resources: Development of Priorities, Policies and National Action Plans” was held in Beijing, China. One of the main objectives of both workshops was to facilitate progress in establishment of Subregional Focal Points in the Asia region. Positive developments are expected in both subregions.

The European Regional Focal Point

In Europe, awareness of the erosion of AnGR and the consequent need for their better management has been developing since the 1960s, when the first initiatives were undertaken to conserve native breeds at risk. In 1980, the European Association for Animal Production (EAAP – now the European Federation of Animal Science) established a Working Group on AnGR, which initiated efforts to better manage AnGR in the region. Three consecutive inventories of livestock breeds in Europe, undertaken by the EAAP Working Group, resulted in the establishment of the European Animal Genetic Databank (EAAP-AGDB) and publishing of findings on the state of livestock breeds in Europe (Simon and Buchenauer, 1993). However, the initial database was limited to only four species: cattle, pigs, sheep and goats.

The first meetings of European National Coordinators were organized by FAO as side events during the annual meetings of the EAAP, commencing in 1995 in Prague and 1996 in Lillehammer. These events provided opportunities for initiating discussions on means to improve regional coordination (Martyniuk and Planchenault, 1998). In 1997, France generously offered to support the establishment of a Regional Focal Point for Europe through its Bureau des Ressources Génétiques, and to initiate the process by operating the Regional Focal Point on an interim basis for a period of one year, with the possibility of continuing this activity for an additional one-year term. During a meeting held in Vienna in 1997, European National Coordinators welcomed the proposal, and France – with the assistance of Poland to better provide for countries with economies in transition – initiated, on an informal basis, the activities of the European Regional Focal Point (ERFP). At the annual workshop in Warsaw in 1998, basic decisions were taken regarding the future of the ERFP. It was agreed that the ERFP would have a light organizational structure, respecting national sovereignty in the management of AnGR, and that country participation would be strictly



voluntary. National Coordinators agreed that a single Regional Focal Point for Europe would be sufficient to meet the various countries' needs, but that this should not prohibit subsequent development of subregional groupings if the need arose.

At the 1999 annual workshop of National Coordinators, after a final consultation, 80 percent of European countries voted in favour of a single European Regional Focal Point, based on a light organizational structure, with funding provided through a dedicated trust fund. The ERFP was formally created and a steering committee was appointed during the sixth annual workshop of European National Coordinators in 2000, which was convened as part of the EAAP meeting in The Hague. Four countries offered to contribute 10 000 euros each to finance ERFP activities, provided ten other countries joined this undertaking. Between August 2000 and August 2001, eleven countries agreed to contribute financially to this common European collaborative effort. The ERFP became formally operational during the annual workshop of National Coordinators held in Budapest in August 2001. The annual ERFP budget is approximately 100 000 euros, with 70 percent devoted to activities and programmes, 10 percent for supporting the annual National Coordinators' workshop, and 20 percent for development work (web site, collaboration with European Commission, etc.) The hosting country of the ERFP secretariat is expected to cover the costs of the office, staff and basic communication.

The financial contributions from donor countries are placed in the trust fund, which is administered by the steering committee through the secretariat, and are held and audited by the EAAP. These funds cover specific activities approved at the annual workshop, meetings of the steering committee, as well as additional costs of the secretariat (e.g. travel) when engaged in ERFP matters. Donors for specific programmes or projects coordinated by the ERFP are welcome to make additional financial contributions.

The light organizational structure of the ERFP is based on three main elements:

- annual workshops of National Coordinators;
- a steering committee; and
- a secretariat hosted by a country elected for this task.

The structure is dynamic in nature and allows direct involvement of National Coordinators in deciding on policies, programmes and activities (FAO, 2004d).

The annual workshop of National Coordinators has the following objectives:

- bringing together all National Coordinators from the countries of FAO's European Region (44 countries as of 2011);
- exchanging information on national and subregional activities;
- initiating new projects and concerted actions;
- deciding on the budget and future activities of the ERFP as well as on general rules regarding the modes of operation and financing of the ERFP, the annual workshop, the steering committee and secretariat;
- electing the secretariat of the ERFP and the steering committee; and
- being advised by technical (e.g. EAAP, FAO), political (e.g. European Commission, FAO) and organizational (e.g. FAO) experts as appropriate.



BOX 24

The converts' corner

If we succeeded in setting up the Regional Focal Point for the management of AnGR in Europe (ERFP), it was because countries in Europe were already convinced of the need to work together in this field and that a regional focal point would be fundamental to inventory, management and protection of their AnGR. They also recognized that given the value and ongoing erosion of these resources, this work required debate and cooperation at international level.

It was important to define a framework. Through the establishment of the Global Strategy for Management of Farm Animal Genetic Resources in 1995, FAO was instrumental in supporting a country-driven process. Since the adoption of the *Global Plan of Action* in 2007, this regional and global framework has become even more important. It allows countries to build upon and reinforce the work already completed.

The framework provided by FAO, and the locomotive role of the countries, were necessary but not sufficient elements for the establishment of the ERFP. Mutual recognition and appreciation of the actions undertaken in the field of the AnGR by each country were the keys to success. There was no comparison of the actions, but the will to share experience and reach a common objective. The light structure of the ERFP allowed all the programmes developed in Europe to be recognized. In the field of AnGR, the involvement of all countries is very important. We tried not to operate on the basis of two blocks – countries that have resources and those that require support and collaboration. We worked with countries that wanted to take action to improve AnGR management. The active participation of countries during the annual workshop is more important than an obligatory financial contribution to maintain a heavy formal structure. The network of committed colleagues working in the field of AnGR is the key element of the ERFP and may be the most permanent one.

The ERFP is evolving and it may be impossible to maintain a permanent division between countries that fund and those that do not fund common programmes for the conservation of AnGR. Identifying shared interests is the cement for collaboration based on confidence. However, it is not evident that the light structure can be sustainable in the long term. It is therefore important to develop a new mode of funding that respects the equality and the sovereignty of countries.

In my view, the ERFP has still not become sufficiently involved in collaboration with the neighbouring regions, in particular Africa. It is a youthful mistake and easy to understand. It is also not certain that FAO has fulfilled its role in this domain. It is a new, very attractive objective. Even there, a converts' corner exists.

Provided by Dominique Planchenault, Regional Coordinator for Europe, 1998–2006.



The steering committee:

- consists of members elected from among the National Coordinators (initially five members including representatives of each of the European subregions);
- is headed by a chair elected by National Coordinators during the annual workshop;
- plans or executes the activities of the ERFPP following decisions taken by the annual workshop of National Coordinators;
- evaluates project proposals submitted based on an annual call for action;
- oversees the annual budget;
- prepares the agenda for the annual workshop, proposes the work programme and issues for discussion related to the organization and financing of the ERFPP; and
- represents the ERFPP to other institutions under the mandate provided by the annual workshop.

The secretariat:

- is elected from among the National Coordinators to serve for a defined period of time;
- is headed by an executive officer – the Regional Coordinator elected from among the National Coordinators;
- organizes the annual workshop of National Coordinators;
- provides secretarial support to the steering committee of the ERFPP;
- executes decisions taken and supports projects decided upon by the annual workshop or steering committee and manages the annual budget; and
- distributes relevant information to and from National Focal Points and passes on information from within the FAO global network via newsletters, e-mail, the internet and other means.

The ERFPP is organized around the annual workshop of National Coordinators, which is held in association with the annual meetings of the EAAP. The workshop receives reports from every country on the activities undertaken during the past year. It considers progress reports on projects implemented with financial support from the ERFPP and decides on new directions for activity during the coming year.

The Regional Coordinator and the chair of the steering committee provide reports on their activities and budgets for both the past and the coming year, which are adopted. A workshop report is prepared after each workshop, including annual country progress reports provided by the National Coordinators and other materials presented at the meeting. These documents are available via the ERFPP web site¹⁴. In recent years, training workshops, addressing various technical areas, have been organized back-to-back with the annual workshops of National Coordinators.

During the annual workshop, elections are held for the steering committee members and the chair. The steering committee consists of National Coordinators representing four geographical areas of Europe – North, West, South, and Central and East – along with the ERFPP chair and the secretariat. Each member of the steering committee is elected for four years, based on a rotational system, whereby each year one region stands for re-election.

¹⁴ <http://www.rfp-europe.org>



The secretariat is elected for a four-year term. From the beginning of the ERFPP until 2006, the secretariat was hosted by the Bureau des Ressources Génétiques, France; from 2006 to 2010, by the University of Thessaloniki, Greece; and from 2010 onwards, by the Information and Coordination Centre for Biological Diversity (IBV), Federal Office for Agriculture and Food (BLE), Bonn, Germany.

The ERFPP has evolved to provide a platform for prioritizing collaboration projects, and mobilizing financial resources for their implementation. In 2002, following the decision of the eighth annual workshop of National Coordinators, a first call for action was launched. The projects to be financially supported by the ERFPP had to initiate or reinforce ongoing collaborative activities in the field of AnGR management among European countries. The workshop decided on four priority areas that were eligible for project proposals:

- breed development and conservation – *in situ*;
- breed development and conservation – *ex situ*;
- monitoring of AnGR – practices and approaches; and
- monitoring of AnGR – overview of available data and information.

Moreover, it was also possible to submit proposals for projects that would enable direct assistance to particular countries or groups of countries in support of the activities of their National Focal Points. A number of projects were funded within the scope of the annual call for action. Many resulted in valuable outcomes, including well-received publications, such as the *Guidelines for the constitution of national cryopreservation programmes for farm animals* (ERFP, 2003), and *Possible way of conservation the multi-purpose Tsigai sheep in the Central and Eastern European countries. European cryoconservation of heritage sheep breeds – scoping study*¹⁵. It must be emphasized that some of the projects initiated within the framework of the call for action led to the development of research and concerted action proposals that were submitted to and received substantial funding from the European Commission.

The ERFPP is, above all, a communication platform managed by the secretariat. Under the direction of the steering committee, information provided by the National Coordinators is published to ensure the exchange of information and experiences among countries, governmental organizations and NGOs. Since 2002, the ERFPP has been maintaining its own web site (<http://www.rfp-europe.org>). It is an important tool for information sharing and communication between European countries. The web site stores all documents presented during the annual workshops, as well as the minutes of the meetings.

The ERFPP works with subregional organizations in order to reinforce a common approach to addressing AnGR issues in countries that have similar needs. It establishes close working relationships with international non-governmental organizations (Rare Breeds International¹⁶, Safeguard for Agricultural Varieties in Europe Foundation¹⁷, Danubian Countries Alliance for Gene Conservation in Animal Species¹⁸, Farm Animal Industrial Platform¹⁹, etc.). On scientific

¹⁵ Information on projects is available via the ERFPP web site: <http://www.rfp-europe.org> – follow “Documents” link then “Project documents”.

¹⁶ <http://www.rarebreedsinternational.org>

¹⁷ <http://www.save-foundation.net>

¹⁸ <http://www.dagene.eu>

¹⁹ <http://www.ffmpeg.org>



BOX 25

Views on animal genetic resources from the Nordic region of Europe

NordGen – Farm Animals was founded in 1984 under the name of the Nordic Gene Bank Farm Animals (NGH). From January 2008 the AnGR sector was merged with the plant and forest genetic resources sectors, with the establishment of a new institution, the Nordic Genetic Resource Center (NordGen).

Nordic collaboration is stimulated by the Nordic Council of Ministries and its secretariat in Copenhagen. The Nordic Ministries of Agriculture have lately prioritized genetic resources for food and agriculture, taking their economic value also into account. In fact, for the last five to ten years, genetic resources were the main issue on the agricultural agenda of the Council.

What were the key factors that contributed to the success of Nordic collaboration?

- the presence in all partner organizations and institutions of persons who have professional knowledge, interest and dedication to AnGR as fundamental resources for providing food and agricultural products; partners included political bodies such as ministries and other authorities, breeding organizations responsible for breeding activities and conservation, and community organizations involved in local development;
- formal collaborations between partners involved in and responsible for the management of AnGR at national level;
- establishment of National Focal Points – dedicated, formally established and recognized units, responsible for AnGR activities – in each country;
- establishment of policies and strategies on genetic resources, including those in the livestock sector; and
- taking into account the differences between livestock and plants (ownership, *ex situ* requirements, etc) in the operational management of conservation and sustainable use of genetic resources.

There are some differences in the way things are organized and implemented at national level in the various Nordic countries. These differences have to be respected and may be turned into driving forces for enhancing and further developing areas of common interest. It is crucial to cultivate universal values that are shared by the Nordic countries.

It is also fundamental to be able to present hard evidence – figures showing monetary and other values of animal genetic diversity as resources for the further development of food and agricultural products – in order to include AnGR on the political agenda. Moreover, to attract political involvement, is very important to evaluate and clarify the risks to food supply and security associated with the erosion of genetic diversity.

Thus, values and risks of considerable magnitude and importance for the food security of future generations may stimulate political awareness of AnGR-related issues and lead to their being taken on board regularly in the political planning process, at national as well as regional levels.

Provided by Erling Fimland, Director of the Nordic Gene Bank – Farm Animals (NGH), 1998–2008.



matters, it receives advice from the EAAP Working Group on AnGR. The ERFP does not create new structures; it relies as far as possible on existing functional structures within member countries or at regional level.

The ERFP maintains a good working relationship with the European Commission. In January 2006, with the support of the European Commission, a two-day workshop was organized to exchange views on legal and strategic issues related to AnGR, and to further harmonize AnGR policies with core livestock policies (FAO, 2006a). Representatives of the ERFP were also invited to relevant meetings of the Standing Committee on Zootechnics²⁰.

At the last two annual workshops, options for the further evolution of the ERFP were discussed. The key issue considered was the mode for long-term financing of the ERFP; three possibilities were discussed:

- Option 1:** continue the current approach with a group of donor countries, at least ten, providing, on a voluntary basis, 10 000 euro per year to maintain the annual budget at the level of at least 100 000 euro;
- Option 2:** all participating countries within the region contribute financially, on a voluntary basis, proportionally to their FAO membership contributions, with a maximum of 5 000 euro per country per year, which will make prediction of the budget rather difficult; and
- Option 3:** establishment of a legal structure for the ERFP, with obligatory payments according to FAO contributions; with 39 countries (2010) participating, the maximum total budget envisaged would be about 90 000 euro (ERFP, 2008).

Before any decisions are taken, the steering committee needs to discuss these options with the EAAP, FAO and legal advisers. Most importantly, the National Coordinators need to discuss the three options in their countries. If a change is agreed upon, a transitional period of three years is envisaged. The options were further discussed at the annual workshop in Crete in 2010, where Option 2 was considered preferable by National Coordinators.

Lessons learned from the operation of the ERFP

The European experience has shown that it is possible to set up a light coordinating structure for the management of AnGR at regional level. The driving force has been the needs identified by National Coordinators, their enthusiasm and their commitment to sharing experiences, advice and reflections on the management of AnGR. Initial financial support (seed money) provided by the French government, and a group of committed leaders and advocates within the region proved to be instrumental in initiating action. Later, a relatively small financial commitment from several European governments was instrumental; and this remains the case. Establishing core funding is a must. Sharing the cost among several countries enabled the creation of the ERFP.

Additional benefit and added value was provided by the organization of annual workshops for National Coordinators linked to the annual meetings of the EAAP. This supported broader participation in both meetings and enabled the organization of a number of scientific sessions related to various aspects of AnGR management.

²⁰ http://ec.europa.eu/food/committees/regulatory/scz/index_en.htm



The ERFPP has already proved its importance and capacity to mobilize joint action for the better management of AnGR. The ERFPP plays an important proactive role in European Union negotiations on regulations affecting AnGR, and acted as a catalyst in the SoW-AnGR process. The ERFPP plays a key role in building awareness and promoting technical improvements; for example, by organizing a successful international workshop on cryo-preservation in Europe, which has led to opportunities for research and training and the preparation of several scientific documents. The ERFPP has also mobilized financial resources to support a number of regional collaborative projects. A key benefit of the ERFPP is that it has facilitated the establishment of strong working relationships among the European National Coordinators, which has resulted in many tangible and intangible benefits.

Experiences in Africa

For the purpose of implementing the Global Strategy, sub-Saharan Africa was divided into three subregions, in accordance with existing regional organizational structures:

1. Southern Africa – in collaboration with the Southern African Development Community (SADC) and the Southern African Centre for Cooperation on Agriculture Research (SACCAR);
2. East Africa – in collaboration with the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the Intergovernmental Authority on Development (IGAD);
3. West and Central Africa – in collaboration with Union Economique et Monétaire Ouest Africaine (UEMOA), Comité Inter-Etats pour la Lutte contre la Sècheresse dans le Sahel (CILSS) and Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (CORAF) (FAO, 2000b).

The Regional Focal Point for Southern Africa involved the 14 countries of the SADC and commenced in 1998 as a project titled “Management of farm animal genetic resources in the SADC region” funded by the United Nations Development Programme (UNDP) (RAF/97/032). It was hosted by the Ministry of Agriculture of South Africa. It was initially intended that the project should end in 2002, but it was later extended to 2004. A Chief Technical Advisor managed the project, and a regional steering committee was formed to provide overall guidance. The committee consisted of the National Coordinators of the SADC countries, representatives of Technical Centre for Agricultural and Rural Cooperation (CTA), the SADC Livestock Sector Coordinator, representatives of the UNDP and FAO and, as permanent observers, representatives of African Union Interafrican Bureau for Animal Resources (AU/IBAR) and ILRI.

The steering committee developed work plans based on country priorities. An important project to develop a comprehensive protocol for country-level surveying of AnGR was initiated as a part of the Government of Norway-sponsored project GCP/INT/694/NOR “Integrated Project for Food Security” (FAO, 2000b). The Regional Focal Point did not continue when the project was concluded. Ways and means to revive the operation of the Regional Focal Point for Southern Africa are being investigated.

As a result of the regional Norway-funded project, the region was able to put in place national structures for enhancing the sustainable management of AnGR. SADC countries



have established permanent institutional frameworks to facilitate this process and initiate country-level field activities, especially inventory, characterization and conservation of AnGR. Regional coordination activities also supported and enhanced the contribution of the SADC region to the SoW-AnGR process by increasing understanding of the status of AnGR and strengthening the capacities of countries in the region (Setshwaelo, 2002).

In 2009, a long-term project titled “Sustainable utilization and management of animal genetic resources in the SADC region through integrated research and development” was prepared by SADC to be submitted to the Swedish International Development Cooperation Agency (SIDA) and to the Nordic Genetic Resource Center (NordGen) for participation and financial support over a 20-year period. The project focuses both on short-term and on long-term interventions in the SADC region, and will enhance regional coordination. National Agricultural Research Systems will implement country-specific collaborative programmes on the sustainable improvement and conservation of AnGR. With financial support from SIDA and technical support provided from the Swedish University of Agricultural Sciences, NordGen and ILRI, project activities will focus on capacity-building and strengthening management at all levels, to improve the livelihoods of livestock keepers. Implementation of the project will also ensure long-term operation of the Regional Focal Point in the SADC region.

The Sub-Regional Focal Point for West and Central Africa was established in 2011. The process began at a workshop organized by FAO in collaboration with the Regional Project on Sustainable Management of Endemic Ruminant Livestock in West Africa (PROGEBE) in March 2010 in Dakar, Senegal. The workshop took the decision to establish a single focal point covering both West and Central Africa. It also created an interim steering committee, which – in accordance with an agreed road map – organized preparatory electronic and physical meetings to discuss the nature, structure, funding, promotion and establishment process of the focal point. The interim steering committee also promoted the involvement of regional economic communities, reviewed and amended the election procedures, and prepared a regional workshop at which the focal point was to be established. The latter workshop took place in June 2011 in Libreville, Gabon. Participants included National Coordinators from 21 West and Central African countries, along with representatives of international and regional organizations and the Government of Gabon. The workshop adopted the terms of reference of the focal point, established the criteria for selecting the members of the steering committee of the focal point and the institution to host its secretariat, and elected the members of the first steering committee. The workshop declared the formal establishment of the focal point and formulated its programme of work for 2011 to 2014. The workshop culminated with the adoption of the “Libreville Declaration”²¹, which summarized the outcomes. An important element contributing to the establishment of the focal point was the creation of the discussion group DAD-Net West Africa, a network created to serve as a platform for information sharing and collaboration on AnGR-related issues. Electronic discussion fora were organized prior to each regional workshop.

²¹ <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,1009>



In East Africa, UNDP agreed to fund a Preparatory Assistance Project to develop an AnGR project for Eastern African countries covered by IGAD and ASARECA. With funding from the UNDP and in collaboration with ILRI, training courses were organized for experts and policy-makers in the area of AnGR management in ASARECA countries (FAO, 2000b).

In September 2005, FAO organized a workshop for National Coordinators at Arusha, United Republic of Tanzania, titled “FAO workshop for National Coordinators of Eastern and Southern African countries: capacity building for functional Regional Focal Points for Animal Genetic Resources” to examine the feasibility of establishing a Regional Focal Point and to discuss regional priorities related to the SoW-AnGR process. The workshop involved participants from 21 countries from Eastern and Southern Africa. Following the workshop, the University of Nairobi offered to host the East Africa Regional Focal Point, and nominated a staff member to coordinate activities (FAO, 2006a). However, the Regional Focal Point has not yet been established.

In West and Central Africa, with UNDP Preparatory Assistance Funding, a regional project to support regional collaboration in AnGR management has been formulated and sent to governments and regional organizations for consideration. The Global Environment Facility considered funding, through UNDP, a programme for the conservation of N'dama and other trypanotolerant breeds involving Gambia, Guinea, Mali and Senegal (FAO, 2006a). Two regional training courses were held in Gambia in collaboration with the International Trypanotolerance Centre (ITC) on issues of AnGR management, targeted at experts and technicians as well as policy-makers. Such projects contribute to capacity building and networking in the region.

The Regional Focal Point in Latin America and Caribbean

The first workshop for National Coordinators in the Latin America and Caribbean region was held in 1996. After that, little progress towards establishing a Regional Focal Point in the region was made for several years. During this period, however, countries made substantial progress in strengthening their national programmes for AnGR, using the Global Strategy as a strategic framework. During these years, countries within the region, along with the Global Focal Point, searched for funding and for ways and means of enhancing regional coordination and collaboration. During workshops organized by the Global Focal Point to implement the SoW-AnGR process, country representatives underlined the importance of establishing a Regional Focal Point, and that this would require support from FAO.

The preparation of the SoW-AnGR and the negotiations leading to the adoption of the *Global Plan of Action*, advanced the process of establishing the Regional Focal Point for Latin America and Caribbean. Detailed planning for the establishment of the Regional Focal Point was initiated at the beginning of 2007 and continued for several months. The process was overseen by an interim steering committee. Interest in hosting the Regional Focal Point was very high, with four institutions submitting proposals:

- Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina;
- Rural Federal University of Pernambuco, Brazil;
- Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA), Brazil; and
- Universidad Austral de Chile.



In May 2007, a three-day workshop was organized in Santiago, Chile, with financial support from FAO provided by the Norwegian Trust Fund. Eleven National Coordinators from the region took part in this meeting (Argentina, Brazil, Plurinational State of Bolivia, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Mexico, Peru and Uruguay). The main focus of the workshop was to discuss priorities for AnGR in the Latin America and Caribbean region within the SoW-AnGR process, as well as to discuss the strategic priorities for action in preparation for the negotiations at the Eleventh Regular Session of the CGRFA and at the International Technical Conference in Interlaken. The meeting also provided an opportunity to advance discussions on establishing the Regional Focal Point. Voting procedures were discussed and participants agreed to limit the voting to the countries that had been active and/or shown interest during the process. A mail-in vote was concluded in early June 2007 and led to the election of EMBRAPA as the Regional Focal Point.

National Coordinators from the Latin America and Caribbean region met again during the Interlaken Conference in September 2007, and agreed that convening another workshop would be necessary to conclude discussions on the organizational arrangements for the Regional Focal Point, and especially to elect a permanent steering committee and prepare a work plan.

A regional workshop for the region's National Coordinators was organized in April 2008 in Brasilia, Brazil. Twelve National Coordinators participated at the workshop (Argentina, Barbados, Brazil, Plurinational State of Bolivia, Costa Rica, Ecuador, Guatemala, Jamaica, Paraguay, Peru, Suriname and Uruguay), along with representatives from EMBRAPA, the University of Brasilia and FAO.

As in the case of the European Regional Focal Point, it was decided that the permanent steering committee should have a subregional structure. The membership of the permanent steering committee consists of representatives of four subregions: Andean; Caribbean; Central America; and Southern Cone; as well as the Regional Coordinator. A representative of the FAO Regional Office for Latin America and the Caribbean, located in Santiago, Chile, has observer status.

It was decided that the members of the steering committee would be elected for two-year periods with the potential for one re-election. In the first stage of operation, two steering committee members were to rotate out and be replaced by National Coordinators from the same subregion to ensure continuity. It was proposed that a meeting of all National Coordinators should be held annually and that the steering committee should meet once between the annual meetings.

It was agreed that the permanent steering committee should have the following functions and responsibilities:

- developing a strategic five-year plan;
- compiling a regional capacity-building portfolio;
- developing a biennial work plan;
- creating a web page;
- preparing a budget covering the fixed costs of the Regional Focal Point secretariat and variable costs of meetings and agreed activities; and
- establishing a Regional Focal Point bank account at an independent institution.



BOX 26

Creating the Regional Focal Point for Animal Genetic Resources for Latin America and the Caribbean

The creation of the Regional Focal Point for Animal Genetic Resources for Latin America and the Caribbean (RFP-LAC) in 2007 was the result of several driving forces.

When the Global Focal Point first invited countries to appoint National Coordinators, many of the countries of our region commonly sent a different person to each meeting of the ITWG-AnGR or to the regular sessions of the CGRFA. Fortunately, this situation has changed, and the majority of countries now send the National Coordinator to international meetings related to AnGR. This development completely changed the situation and increased the level of integration among the National Coordinators of the region even before the creation of the RFP-LAC.

We could say that the creation of the RFP-LAC was a result of the determination of the National Coordinators of the region, who understood that we could be stronger and be heard as one voice during the FAO meetings.

Another driving force was the interest shown in hosting the Regional Focal Point. A total of four institutions, from three different countries, offered their candidacy, showing the importance of the RFP-LAC for the region.

We should not forget, however, the assistance provided by the FAO Regional Office for Latin America and the Caribbean in the creation of the interim steering committee that was responsible for establishing the rules for the election of the first Regional Focal Point for the region, and later, for the election itself.

The RFP-LAC is a reality, but there are many steps that remain to be taken. The most important is seeking financial support in order to organize training courses and regional and bilateral collaboration among countries of the region.

Provided by Arthur Mariante, Regional Coordinator for Latin America and the Caribbean.

Although the Regional Focal Point has no legal status, it was agreed that it should play a role in coordination and networking across the region in preparation for intergovernmental meetings such as sessions of the ITWG-AnGR and the CGRFA, and that Regional Focal Point meetings should preferably be held prior to such meetings.

Funding options for the Regional Focal Point were discussed and two mechanisms for fundraising were agreed upon:

- international cooperation, targeted for core funding of the Regional Focal Point; and
- countries' financial contributions, which will enhance national commitment.

A project formulation exercise was initiated during the Brasilia workshop. All proposals were research oriented. The participants agreed to the principle that the projects would involve only a small number of countries, but that the results should benefit all the countries of the region. A division of labour was agreed for work on camelids, with Argentina



working on guanacos, Peru on alpacas and vicuñas, and the Plurinational State of Bolivia on llamas. The cattle group proposed a project approach including, characterization, sustainable use and conservation. The main focus was on the standardization of manuals and protocols. Eligibility principles and templates for such regional projects need to be developed.

During the Global Workshop for National Coordinators held in Rome in January 2009 prior to the Fifth Session of the ITWG-AnGR, key obstacles to the activities of the Regional Focal Point were identified. They included:

- the constraining effects of animal health legislation on breed conservation programmes;
- lack of awareness of the roles and values of local breeds;
- lack of coordination between governments and producers;
- lack of organization among smallholders and livestock keepers;
- lack of strong arguments to justify conservation of AnGR;
- lack of niche markets for livestock speciality products;
- lack of continuity in government policy on livestock; and
- lack of institutional effectiveness.

Although the Regional Focal Point in Latin America and Caribbean is relatively new, it has already had a number of successes. The steering committee actively fulfils its mandate. The Regional Coordinator has undertaken extensive awareness-building activities and initiated a promotion campaign presenting the benefits of the Regional Focal Point at a number of conferences and meetings. Moreover, several regional projects proposals are under preparation with elected National Coordinators given responsibility for leading the work.

Developments in the Near East

In 1997, agreement was reached between FAO and the International Center for Agricultural Research in the Dry Areas (ICARDA), to collaborate in establishing and maintaining the Near East Regional Focal Point. A first workshop for National Coordinators was held in 1997. A Near East Animal Genetic Group (NEAG) was formed, with the involvement of National Coordinators, to serve as an interim Regional Focal Point with a view to coordinating regional activities until a permanent Regional Focal Point could be established (FAO, 2000b). Since then, several training workshops have been carried out in the region, mainly focused on capacity-building to help National Coordinators initiate their AnGR programmes. The topics covered have included:

- establishing a country-based structure for the management of AnGR;
- critically reviewing breed data and information; and
- enhancing communication with other regions and with the Global Focal Point.

In November 2005, a subregional workshop was held in Aleppo, Syrian Arab Republic, to examine priorities for AnGR management and regional collaboration. The workshop, which involved the participation of nine countries, was organized by FAO and ICARDA. Following the meeting, ICARDA offered to host the Regional Focal Point for West Asia and the Near East, and make staff and facilities available for its operation (FAO, 2006a). Despite this commitment, the Regional Focal Point has not yet (2011) been established.



BOX 27

Activities on animal genetic resources in the Southwest Pacific**Regional Coordinator**

The Secretariat of the Pacific Community (SPC) acts as the regional coordinator for AnGR, and through this organization we are able to contact and disseminate information to our countries and territories. The Regional Coordinator, Mr Nichol Nonga, is based in Suva, Fiji Islands.

Regional Focal Point

The Southwest Pacific region does not have a Regional Focal Point like some other regions. It is our hope that the Regional Focal Point will be established in the near future to properly address AnGR issues.

National Coordinators

Of the 14 FAO member countries in the SPC region (Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu) only 6 have (as of 2010) officially nominated National Coordinators for AnGR. The SPC coordinator urges countries to submit their nominations immediately and recent responses from contacts in the countries have been positive.

Activities and initiatives in the region

1. Inventory and characterization survey

This major activity was carried out in 4 countries – namely Fiji, Niue, Samoa and Tonga – on indigenous pigs and poultry. Blood samples – 40 from pigs and 40 from chickens – were collected from each country and DNA were analysed at the Beijing ILRI laboratory. The preliminary results have been released and we are excited about the potential genetic diversity in the region. Further analysis is required to compare these results with world pig and chicken populations.

2. E-mail forum for the Southwest Pacific on AnGR

The e-mail forum (swpangr@lyris.spc.int), which currently (2010) has 78 members from all over the region and beyond, is an active network. As the region has limited funding for work on AnGR development and conservation, or for meetings, the forum serves as an information and discussion network. Through the forum, we have discussed various topics ranging from animal census, participation of National Coordinators at the Fifth Session of the ITWG-AnGR, nomination of National Coordinators, general discussions on cattle, pigs, goats, sheep, poultry and bees, climate change and its impact, and waste-management work done in other parts of the world.

cont.



3. Web site

An AnGR web site* has been established. Teething problems with the web site are being addressed and it is hoped that it will soon be possible to add more information on the region's genetic resources to the site, including scientific reports, reports on country visits and other papers of interest from within the region. We are currently working on additional inputs for the web site.

4. Utilizing other regional meetings for AnGR consultations

We are attempting to solve financial difficulties by aiming to nominate the same person as National Coordinator for AnGR and for other livestock-related positions so that when they attend other regional meetings we can add a day or two to discuss AnGR issues. For example, we use the regional Pacific Heads of Veterinary and Animal Production Services, which meets every two years, to discuss livestock issues in the region, and AnGR issues are discussed back-to-back with this meeting.

Provided by Nichol Nonga, Animal Production Officer and Regional Coordinator of the Southwest Pacific, Animal Health and Production Thematic Group, Secretariat of the Pacific Community.

* http://www.spc.int/lrd/index.php?option=com_content&view=category&layout=blog&id=2&Itemid=65

The Southwest Pacific

In the Southwest Pacific region, a regional workshop on AnGR was held in May 2006 in Nadi, Fiji. The workshop was funded by the Government of Australia and supported by the Secretariat of the Pacific Community. Representatives from 16 countries adopted workshop resolutions identifying priority actions, and agreed on the need for regional cooperation in the management of AnGR, including furthering the establishment of AnGR networks. This agreement was endorsed by a meeting of the Pacific Heads of Veterinary and Animal Production Service (FAO, 2006a).

The North America region

The North America region has determined that the establishment of a Regional Focal Point is not necessary, as the National Coordinators in the two countries have already established sufficient means of communication and collaboration.

REGIONAL FOCAL POINTS: SUMMARY OF CONCLUSIONS

Where they have been established, Regional Focal Points have proven invaluable in facilitating regional communication; providing technical assistance and leadership; coordinating training, research and planning activities among countries; initiating the development of regional policies; assisting in the identification of project priorities and proposals; and interacting with government agencies, donors, research institutions and NGOs (FAO, 2004e). Based on these positive experiences and ongoing requests from countries, the CGRFA and its ITWG-AnGR, have repeatedly supported the development of Regional Focal Points. The



CGRFA has emphasized that the following benefits, *inter alia*, can be expected from establishing Regional Focal Points:

- enhanced ability to share experiences in the implementation of National Strategies and Action Plans for the management of AnGR (best practices, policy development, etc.);
- efficient capacity-building through regional training;
- collaborative AnGR characterization and coordinated *in situ* and *ex situ* conservation measures;
- potential for significant reductions in the costs of conservation;
- enhanced donor support for AnGR projects through improved project development and promotion; and
- potential for establishing regional policies that enhance national and regional efforts to better use, develop and conserve AnGR.

Despite the high value placed on Regional Focal Points by the ITWG-AnGR and the CGRFA, mobilizing financial resources for the establishment and/or maintenance of some existing and proposed Regional Focal Points has proved to be extremely difficult.

Although, in many cases, countries have agreed at subregional meetings to create networks or Subregional Focal Points, follow-up from countries within the subregions has been weak because of a lack of the critical mass necessary to obtain the core financial and human resources, as well as insufficient political support at national and regional levels. FAO has not been successful in raising the extra-budgetary resources required for the development of focal points at regional or subregional levels. Moreover, the examples of Asia and the SADC region have indicated that establishment of a Regional Focal Point on a project basis is not sustainable, and therefore this approach is not being pursued by FAO.

It is becoming increasingly clear that Regional Focal Points will be established primarily by mobilization of financial resources within each region or subregion. Cases in which focal points have not remained operational after project funding ended indicate that national involvement and commitment is essential to ensure sustainability.

The successful establishment of a Regional Focal Point depends very much on the level of AnGR-related activities and political commitment to AnGR issues in the countries of the region. Continued leadership by National Coordinators is needed to mobilize support and funding for the establishment of Regional Focal Points and their ongoing activities. Participation of national stakeholders can also be extremely important. In many regions, strengthening the role of National Focal Points, together with mainstreaming AnGR issues in national policies and strategies, is essential in order to gain the momentum required for establishing a Regional Focal Point (assuming the need for such a body has been established) (FAO, 2006a). At the same time, regular contact among National Coordinators at annual regional meetings and periodic training courses or workshops on specific technical aspects of AnGR management is a means of promoting participation in AnGR activities at national level.

Regular contact among National Coordinators will also foster bilateral collaboration, which may be formalized through memoranda of understanding between countries. Such collaboration may focus on conservation and sustainable use of transboundary breeds or on joint activities such as training or awareness building; one example is the joint translation of



the *Global Plan of Action for Animal Genetic Resources* by Greece and Cyprus.

Given that by 2009 only two Regional Focal Points – in Europe and in Latin America and Caribbean – were sustainably operational, the ITWG-AnGR at its Fifth Session in January 2009 stressed the importance of advancing the establishment of Regional Focal Points to facilitate and promote the implementation of the *Global Plan of Action*. To overcome financial difficulties, it recommended that the CGRFA request FAO, and especially FAO Regional Offices, to play a catalytic role in the establishment of regional focal points at the request of countries (FAO, 2009d).

A CHECKLIST FOR THE ESTABLISHMENT AND OPERATION OF A REGIONAL FOCAL POINT

Draft guidelines for the development of Regional Focal Points were made available to countries by FAO in 2006 during the Fourth Session of the ITWG-AnGR (FAO, 2006b). These guidelines provided advice on the establishment of Regional Focal Points and described a step-by-step process intended to assist regional interests in examining the potential for establishing and sustaining Regional Focal Points. An adapted version of this guidance, which takes into account recent experiences, particularly in Latin America and the Caribbean, is presented below.

Overview of the main steps

- Step 1. Establish an interim regional steering committee.
- Step 2. Build awareness of the benefits of the Regional Focal Point.
- Step 3. Prepare a business plan for the Regional Focal Point.
- Step 4. Establish a draft set of selection criteria for hosting the Regional Focal Point and prepare a draft host agreement.
- Step 5. Convene a regional workshop to discuss establishment of the Regional Focal Point.
- Step 6. Once there is agreement to establish the Regional Focal Point, elect a permanent steering committee to guide its establishment and appoint a Regional Coordinator.
- Step 7. Agree on the overall operational arrangements:
 - roles and functions of the permanent steering committee;
 - terms of reference for the Regional Coordinator;
 - roles and functions of regional meetings; and
 - other means to engage National Coordinators.
- Step 8. Agree on the host institution and secretariat for the Regional Focal Point.
- Step 9. Routinely review the operation of the Regional Focal Point

Detailed guidance

Step 1. Establish an interim regional steering committee

1. Identify a country, or a group of countries, within the region that will take the lead in the initial preparatory process for establishing the Regional Focal Point. This country or group of countries (with the support of the Global Focal Point) should prepare and host a meeting of a group of National Coordinators to initiate the establishment of the Regional Focal Point.



2. Establish an interim steering committee to oversee the process of establishing the Regional Focal Point:
 - The core membership of the interim steering committee should consist of National Coordinators, or their representatives, nominated from within the region.
 - Representation from NGOs, business interests, and international organizations that have interest in AnGR should also be considered, where relevant. Including such additional members can help ensure stakeholder representation and build broad-based support for the establishment of the Regional Focal Point.
3. Initial tasks for the interim steering committee may include:
 - assessing the needs, objectives and potential benefits of a Regional Focal Point in the region. This assessment might be undertaken using a questionnaire. The key target audience for the assessment will be National Coordinators. Non-governmental organizations, business interests and relevant international organizations could also be invited to participate in the assessment;
 - developing terms of reference or a draft concept note for the Regional Focal Point;
 - preparing a detailed business plan to initiate the operation of the Regional Focal Point;
 - preparing a set of selection requirements for consideration by National Coordinators, policy-makers and key stakeholders, possibly during a regional workshop; and
 - preparing for the first regional workshop and facilitating initial election(s) for the steering committee and, possibly, the Regional Coordinator.

Step 2. Build awareness of the benefits of a Regional Focal Point

1. Develop a communication strategy to enhance awareness and build support for a Regional Focal Point. The interim steering committee may wish to undertake an awareness-raising campaign to promote the potential benefits of a Regional Focal Point (e.g. at regional meetings and conferences).
2. Initiate interaction with high-level policy-makers and authorities in the appropriate ministries to raise awareness of the need for a Regional Focal Point.
3. Engage government departments, non-governmental stakeholders and relevant business interests to build support for a Regional Focal Point.

Step 3. Prepare a business plan for the Regional Focal Point

1. Prepare a detailed business plan for the proposed Regional Focal Point, which should contain:
 - a clear statement of the purpose of the Regional Focal Point;
 - the main activities of the Regional Focal Point; and
 - an indicative budget with staffing requirements.
2. Prepare a vision statement and terms of reference for the Regional Focal Point. The terms of reference should indicate the key objectives of the Regional Focal Point.
3. Consider grouping the main potential activities of the Regional Focal Point into three key categories:
 - technical cooperation activities;



- mobilization of financial resources; and
 - communication and networking activities.
4. In developing technical cooperation activities, consider:
- coordinating inventory and characterization of regional transboundary breeds to improve cost effectiveness and investigate opportunities for cooperation in breed improvement programmes;
 - coordinating the documentation of breeds at risk and conservation plans, as appropriate. The plans might be based on existing bibliographic information and country reports. They should emphasise both technical and socio-economic aspects of the utilization of the breeds of the region and the strategic advantages of coordinated regional actions;
 - coordinating the exchange of information on AnGR management activities within the region, including further development of data and information systems;
 - determining regional capacity-building needs and establishing a coordinated agenda for addressing priority needs for the better use, development and conservation of AnGR;
 - fostering strong working relationships among countries within the region and among relevant stakeholders, and building consensus on regional issues and policies; and
 - preparing a schedule for executing the work plans related to the technical activities.
5. To mobilize financial resources:
- identify regional priorities for action and prepare plans for their implementation taking into account financial implications for each country;
 - prepare a portfolio of projects to be presented to perspective donors. The identified projects should be based on agreed regional priorities for action, building on the *Global Plan of Action* as well as national priorities identified in country reports or National Strategies and Action Plans; and
 - facilitate and coordinate implementation of regional projects and facilitate access by countries to external technical and financial resources.
6. As part of communication and networking activities, consider:
- establishing and maintaining communication mechanisms among National Focal Points within the region;
 - establishing and maintaining communication with the Global Focal Point and other Regional Focal Points, as appropriate;
 - establishing and maintaining communication with stakeholders within the region;
 - setting-up and coordinating the regional network through a web site that provides information on activities in the region and operates as a communication platform;
 - promoting regional participation in and contribution to DAD-Net and/or setting-up a DAD-Net for region;
 - establishing a virtual library to assist capacity-building in the region. Important documents such as country reports and country progress reports from the region could be made available in the library, as well as the reports of regional meetings and documents provided by member countries (e.g. national legislation relevant to AnGR). Regional research and other collaborative projects should also be documented and



held in the regional virtual library;

- creating a strong link with the DAD-IS global virtual library on AnGR – contributing relevant documents from the region to the global virtual library; and
- promoting and coordinating the preparation and release of communication material to raise awareness at regional and national levels on the social, economic, food security, cultural and other aspects of the management of AnGR and specifically of local AnGR.

7. Preparation of a draft budget and funding options:

- Prepare a draft budget for the operation of the Regional Focal Point, to be included in the business plan. A well-prepared yearly budget is necessary to indicate clearly what is required for the effective operation of the Regional Focal Point. The budget must be realistic if it is to attract participating countries and potential donors.
- Consider and propose a sustainable funding mechanism for the operation of the Regional Focal Point. Experience has shown that mobilization of sustainable financial resources from donors for the establishment and maintenance of Regional Focal Points, while not impossible, is extremely difficult and not sustainable. The most sustainable approach to financing Regional Focal Points is likely to be a combination of in-kind and other support from a host country or host organization from within the region, and a cost-sharing arrangement involving member countries from within the region.
- If relevant, propose a formula for financial contributions from countries within the region in order to ensure sustainable functioning of the Regional Focal Point.
- Approach potential donors to mobilize start-up funding for the Regional Focal Point.

8. Disseminate the business plan for the Regional Focal Point widely.

Step 4. Establish a draft set of selection criteria, host agreement and election procedure

1. Draft a set of selection criteria to assist countries in understanding the minimum requirements for hosting the Regional Focal Point. These criteria are likely to include:

- prior engagement on the part of the host institution in activities related to the management of AnGR within the country or the region; and
- prior availability, within the host institution, of the minimum basic staff, infrastructure and financial commitment required for running the Regional Focal Point.

Consider the type of organization that could best serve as the host for the Regional Focal Point:

- a ministry within a host country;
- a national institution;
- a regional institution; or
- an intergovernmental organization.

2. Establish the minimum financial, human and logistical requirements that a potential host institution must provide.

3. Establish the length of the term for hosting the Regional Focal Point. This could be a fixed term, if rotation within the region is desirable. Alternatively, the Regional Focal



Point could be permanently established in one host organization, but subject to periodic reviews.

4. Prepare a draft agreement between the host institution and the steering committee of the Regional Focal Point. The host agreement should be an official document signed by representatives of the host institution and the steering committee.

The host agreement may:

- specify the agreed conditions for hosting the Regional Focal Point;
 - indicate the contributions of the host country in providing the secretariat for the Regional Focal Point;
 - specify cost-sharing arrangements; and
 - indicate governance arrangements.
5. Establish procedures for electing the host institution. This will be particularly important if more than one potential host organization expresses its willingness to host the Regional Focal Point.
 6. Determine who is eligible to vote in the selection of a Regional Focal Point and the level of consensus that is required (e.g. majority or a certain percentage of countries in the region). If deemed appropriate, the Global Focal Point might be requested to assist in the election process.

Step 5. Convene a regional workshop

1. Organize a regional workshop to enable all the countries of the region to consider and agree on the establishment of the Regional Focal Point. This will enable country representatives, and in particular National Coordinators, to review the business plan prepared by the interim steering committee, as well as to review the draft selection criteria and draft host agreement.
2. Decide on the location and timing for the establishment of the Regional Focal Point. If feasible, agree upon the host organization for the Regional Focal Point during the first regional workshop. This will be facilitated by conducting consultations at national level prior to the workshop.
3. Agree on the main roles and functions of the secretariat of the Regional Focal Point. The secretariat functions may include:
 - providing support to the steering committee and its chair;
 - organizing regular regional meetings of National Coordinators;
 - organizing scientific meetings and conferences;
 - facilitating exchange of information within the region, including further development of data and information systems;
 - maintaining the web site of the Regional Focal Point;
 - executing decisions taken by the regular regional meetings of National Coordinators and the steering committee;
 - supporting regional projects;
 - managing the annual budget of the Regional Focal Point; and
 - providing reports to the regional meetings of National Coordinators.



4. The workshop should also provide an opportunity to initiate discussion on regional needs and priorities for action. Even preliminary identification of the most important regional priorities will provide additional arguments to justify the establishment of the Regional Focal Point and will add value to attendance at the workshop.

Step 6. Agree on the roles and functions of the permanent steering committee and regional meetings

1. Establish terms of reference for the permanent steering committee to oversee operation of the Regional Focal Point.

Operational factors to consider include:

- length of membership;
- procedure for electing a chair of the steering committee; and
- meeting frequency and modes of communication.

2. Agree on the functions of the permanent steering committee.

The planning and supervising functions of the permanent steering committee may include:

- organizing regular regional meetings; it is desirable to have an annual meeting, and the steering committee should play a key role in developing the agenda for these meetings;
- taking decisions on various matters related to the daily operation of the Regional Focal Point between regular regional meetings;
- developing a consultation procedure with participating countries;
- organizing training workshops and special sessions devoted to development of project proposals, supported by the secretariat;
- planning, executing or supervising the implementation of regional projects;
- establishing the budget for the Regional Focal Point, in collaboration with the secretariat;
- reporting to annual regional meetings of National Coordinators on progress achieved;
- providing general direction and supervising the development of the Regional Focal Point; and
- representing the region, as appropriate, at international events and meetings.

3. Establish procedures, roles and responsibilities in the operation of regular regional meetings.

Regular regional meetings may provide a forum for:

- electing new members of the steering committee;
- electing the host institution if the secretariat of the Regional Focal Point is established on a rotational basis;
- establishing general rules regarding modes of operation and financing of the Regional Focal Point, the steering committee and the secretariat;
- initiating new projects and concerted actions;
- deciding on the budget and the future activities of the Regional Focal Point;
- overseeing the operation of the secretariat of the Regional Focal Point;



- receiving annual progress reports from the secretariat and the steering committee; and
- exchanging information on relevant national and subregional activities.

Step 7. Establish a steering committee for the Regional Focal Point

1. Decide on the composition of the steering committee and organize the official nomination of candidates for membership. Conduct consultations within the region to facilitate the establishment of the steering committee.
2. Organize the voting, establish the steering committee and agree on the process for its renewal.

Step 8. Establish the host organization and secretariat for the Regional Focal Point

1. If the host organization for the Regional Focal Point was not elected during the first regional workshop, the steering committee should initiate the process of identifying candidate host organization(s) and implementing the selection process (launch a call for proposals to host the Regional Focal Point).
2. Conduct an election or other selection procedure agreed upon at the regional workshop (e.g. voting by mail).
3. Conclude the selection process by agreeing on the host organization and host institution for the secretariat and inform member countries of the results.
4. Establish a host agreement and business plan for the operation of the Regional Focal Point.
5. Establish the secretariat for the Regional Focal Point and prepare terms of reference for its operation according to agreement made at the regional workshop.

Step 9. Routinely review the operation of the Regional Focal Point

Routinely undertake reviews of the operation of the Regional Focal Point. This task may be entrusted to the steering committee, with their evaluations presented and discussed at regular regional meetings of the National Coordinators.



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FAO ANIMAL PRODUCTION AND HEALTH GUIDELINES

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3. Breeding strategies for sustainable management of animal genetic resources, 2010 (E, F, S, R**, Ar**)
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The *Global Plan of Action for Animal Genetic Resources*, adopted in 2007, is the first internationally agreed framework for the management of biodiversity in the livestock sector. The guidelines on the *Development of Institutional Frameworks for the Management of Animal genetic resources* have been endorsed by the Commission on Genetic Resources for Food and Agriculture. They are part of a series of guidelines prepared to support countries in the implementation of the *Global Plan of Action*. They complement, in particular, the guidelines on the *Preparation of national strategies and action plans for animal genetic resources*.

A sound institutional framework provides a basis for effective management of animal genetic resources both nationally and internationally. The guidelines present an overview of the components of the global network for the management of animal genetic resources and advice on how they can be strengthened at national and regional levels. Detailed guidance is provided on the role of National Coordinators for the Management of Animal Genetic Resources and the development and operation of National Focal Points for the Management of Animal Genetic Resources supported by National Advisory Committees, working groups and country stakeholder networks. Progress towards the establishment of a network of Regional Focal Points for Animal Genetic Resources is reviewed and advice is offered in the form of a series of steps that can be followed by stakeholders wishing to establish and sustain focal points in their regions.

The guidelines draw on lessons learned from many years of experience in the implementation of programmes and focal points for the management of animal genetic resources in many parts of the world, and include personal contributions from individuals who have been actively involved in this work.

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