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Продовольственная и  
сельскохозяйственная  
организация  
Объединенных  
Наций

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

## COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

### INTERGOVERNMENTAL TECHNICAL WORKING GROUP ON ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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#### DETAILED REPORT ON FAO ACTIVITIES IN THE FOLLOW UP TO THE INTERNATIONAL TECHNICAL CONFERENCE ON ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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## DETAILED REPORT ON FAO ACTIVITIES IN THE FOLLOW UP TO THE INTERNATIONAL TECHNICAL CONFERENCE ON ANIMAL GENETIC RESOURCES

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### I. INTRODUCTION

1. The Food and Agriculture Organization of the United Nations (FAO), along with the Government of Switzerland, organized the First International Technical Conference on Animal Genetic Resources for Food and Agriculture (International Technical Conference), 1–7 September 2007, in Interlaken, Switzerland. At the International Technical Conference, delegates from 109 countries adopted the *Global Plan of Action for Animal Genetic Resources (Global Plan of Action)* and the *Interlaken Declaration on Animal Genetic Resources*. The *Global Plan of Action* consists of four Strategic Priority Areas: 1) Characterization, inventory and monitoring of trends and risks; 2) Sustainable use and development; 3) Conservation; and 4) Policies, institutions and capacity-building. The *Interlaken Declaration* affirms countries' commitment to implement the *Global Plan of Action*. The *Global Plan of Action* calls for the provision of technical assistance, especially to developing countries and countries with economies in transition, to help them implement the plan's provisions. The *Interlaken Declaration* recognizes that the main responsibility for implementation of the *Global Plan of Action* lies with national governments, and acknowledges the essential role of the FAO in supporting country-driven efforts.

2. This document provides a detailed overview of the activities undertaken by FAO's in accordance with the guidance provided by the Eleventh Session of the Commission on Genetic Resources for Food and Agriculture (Commission), the International Technical Conference and the Thirty-fourth FAO Conference.

### II. REPORTING AND AWARENESS RAISING ON THE INTERNATIONAL TECHNICAL CONFERENCE AND ITS OUTCOMES

3. The International Technical Conference recommended<sup>1</sup> that its Chair present the *Global Plan of Action* to the One Hundred and Thirty-third Session of FAO Council; the Thirty-fourth Session of the FAO Conference; and the Second Meeting of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture, as well as to the United Nations Commission on Sustainable Development, the Ninth Conference of the Parties to the Convention on Biological Diversity (CBD) and the Thirteenth Meeting of the Convention's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA).

4. FAO and the government of Switzerland reported on the International Technical Conference and the *Global Plan of Action* at several major intergovernmental conferences. The *Global Plan of Action* was endorsed by the One Hundred and Thirty-third FAO Council<sup>2</sup> and the Thirty-fourth Session of the FAO Conference<sup>3</sup>, through Resolution 12/2007. The *Global Plan of Action* was welcomed by the Thirteenth Meeting of SBSTTA<sup>4</sup> and the Ninth Conference of the Parties (COP 9) to

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<sup>1</sup> ITC-AnGR/07/REP, paragraph 26,

[http://www.fao.org/ag/AGInfo/programmes/en/genetics/documents/Interlaken/Final\\_Report\\_en.pdf](http://www.fao.org/ag/AGInfo/programmes/en/genetics/documents/Interlaken/Final_Report_en.pdf)

<sup>2</sup> CL 133/INF/8, <ftp://ftp.fao.org/docrep/fao/meeting/012/k1014e.pdf>

CL 133/INF/9, <ftp://ftp.fao.org/docrep/fao/meeting/012/k1073e.pdf>

CL 133/RE paras. 54–58, <ftp://ftp.fao.org/docrep/fao/meeting/012/k0667e.pdf>

<sup>3</sup> C34 REP paras. 140–147, <ftp://ftp.fao.org/docrep/fao/meeting/012/k0669e01.pdf>

<sup>4</sup> UNEP/CBD/SBSTTA/13/2, <http://www.cbd.int/doc/meetings/cop/cop-09/official/cop-09-03-en.doc>

the CBD<sup>5</sup> as the internationally agreed framework that contains the strategic priorities for the sustainable use, development and conservation of animal genetic resources for food and agriculture, and provisions for implementation and financing. It was welcomed by the Second Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture<sup>6</sup> and the Seventh Session of the UN Permanent Forum on Indigenous Issues<sup>7</sup>. The Government of Switzerland and FAO also provided reports to the Sixteenth Session of the UN Commission for Sustainable Development<sup>8</sup> and the 2008 Meeting of the Alpine Convention<sup>9</sup>.

5. The Consultative Group on International Agricultural Research (CGIAR), as well as several non-governmental organizations, have also supported the *Global Plan of Action*. Since September 2007, CGIAR Centres, particularly the International Livestock Research Institute (ILRI) and the International Center for Agricultural Research in the Dry Areas (ICARDA) have developed their strategies and medium-term plans in the light of the *Global Plan of Action*. Some countries are starting to use the *Global Plan of Action* as a basis for integrated consideration of animal genetic resources for food and agriculture, both within the broader agricultural sector and in the context of biological diversity as a whole.

6. The *Global Plan of Action* has also been brought to the attention of various scientific and technical conferences and bodies. The details of this reporting are found in the respective sections and in Annexes 2, 3, 4 and 6 of this document.

7. The Commission, at its Eleventh Session, requested FAO to produce an executive summary of *The State of the World's Animal Genetic Resources for Food and Agriculture (State of the World)*.<sup>10</sup> To this end, FAO produced “*in brief*”<sup>11</sup> versions and flyers<sup>12</sup> in six languages, which were presented at the International Technical Conference along with the full report in English. The Government of China undertook translation of the full *State of the World* report into Chinese.

8. The International Technical Conference requested<sup>13</sup> FAO to widely distribute the full *State of the World* report and the “*in brief*” version using electronic and print media formats. It highlighted the importance of translating the *State of the World* into all other official FAO languages, and urged donors to make available resources for this. A French version of the *State of the World* has been prepared with co-funding from the United States of America, and an Arabic version is being prepared in collaboration with ICARDA. Funding has yet to be secured for the preparation of Spanish and Russian versions.

9. Following the International Technical Conference, the *Global Plan of Action for Animal Genetic Resources* and the *Interlaken Declaration* were published in hard copy and electronically in the FAO document repository<sup>14</sup> in the five official FAO languages. Following the adoption of Russian as an official FAO language, the *Global Plan of Action* and the *Interlaken Declaration* were also published in Russian. Printed versions of the *Global Plan of Action*, the *Interlaken Declaration* and the *State of the World* and related products have been widely distributed, as follows:

- 8 000 copies of the *Global Plan of Action* and the *Interlaken Declaration*,
- 2 300 copies of the full *State of the World* report,

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<sup>5</sup> UNEP/CBD/COP9/L.34, <http://www.cbd.int/decisions/cop9/?m=COP-09&id=11644&lg=0>

<sup>6</sup> IT/GB-2/07/Report, <ftp://ftp.fao.org/ag/agp/planttreaty/gb2/gb2repe.pdf>, paragraph 16–18

<sup>7</sup> Permanent Forum on Indigenous Issues, Report on the Seventh Session, (21 April to 2 May 2008), Economic and Social Council, paragraph 85,

<http://daccessdds.un.org/doc/UNDOC/GEN/N08/338/82/PDF/N0833882.pdf?OpenElement>

<sup>8</sup> [http://www.un.org/esa/sustdev/csd/csd16/statements/swiss\\_6may\\_agriculture.pdf](http://www.un.org/esa/sustdev/csd/csd16/statements/swiss_6may_agriculture.pdf)

<sup>9</sup> [http://www.alpenkonvention.org/page7\\_fr](http://www.alpenkonvention.org/page7_fr)

<sup>10</sup> CGRFA-11/07/Report, paragraph 19.

<sup>11</sup> <http://www.fao.org/docrep/010/a1260e/a1260e00.htm>

<sup>12</sup> [http://www.fao.org/ag/againfo/programmes/en/genetics/documents/Interlaken/SOWbrochure\\_en.pdf](http://www.fao.org/ag/againfo/programmes/en/genetics/documents/Interlaken/SOWbrochure_en.pdf)

<sup>13</sup> ITC-AnGR/07/REP, paragraph 21,

[http://www.fao.org/ag/AGAinfo/programmes/en/genetics/documents/Interlaken/Final\\_Report\\_en.pdf](http://www.fao.org/ag/AGAinfo/programmes/en/genetics/documents/Interlaken/Final_Report_en.pdf)

<sup>14</sup> <http://www.fao.org/docrep/010/a1404e/a1404e00.htm>

- 7 200 copies of the *in brief* versions,
- 6 500 copies of the *State of the World* flyer, and
- 5 000 CD-ROMs containing the *State of the World* in its complete form, including annexes.

10. National Coordinators for the Management of Animal Genetic Resources (National Coordinators) were encouraged to prepare national language versions of the *State of the World – in brief*, the *Global Plan of Action* and the *Interlaken Declaration* or other information products under local language agreements with FAO. Germany and Switzerland, in collaboration with Austria, prepared German versions of both the *State of the World – in brief* and the *Global Plan of Action* and the *Interlaken Declaration*. A Japanese version of the *State of the World – in brief* has been made available and a Norwegian version of the *Global Plan of Action* and the *Interlaken Declaration* is being prepared. The *State of the World – in brief* and the *Global Plan of Action* and the *Interlaken Declaration* have been published in Polish in a special edition of the periodical *Wiadomosci zootechniczne*. The brochure, with fact sheets, and the *Global Plan of Action* and the *Interlaken Declaration* have also been published in Danish. The National Coordinators from Thailand, Greece, Cyprus and Brazil have indicated their interest in local language agreements.

11. A wide range of public relations products have been developed and widely distributed. These products have been made available to a number of international conferences and meetings. In addition, National Coordinators requested materials for 12 national and one regional workshops and seminars.<sup>15</sup> The following public relation products were developed and widely distributed:

- a CD ROM containing all documentation of the International Technical Conference – provided to conference participants, National Coordinators and Civil Society Organizations;
- issue 41 of the *Animal Genetics Resources Information Bulletin (AGRI)* – a special issue for the Technical Conference, containing invited papers;
- issue 42 of the *Animal Genetics Resources Information Bulletin (AGRI)* – a special issue containing the proceedings of the Scientific Forum of the Technical Conference;
- a set of six posters for the Thirteenth Meeting of SBSTTA, and a subset of three posters – on the *State of the World*, *Global Plan of Action* and Domestic Animal Diversity Information System (DAD-IS) – for National Coordinators; and
- a brochure containing five fact sheets in English, French and Spanish for COP9 of the CBD and for National Coordinators.

### III. CAPACITY-BUILDING AND TECHNICAL SUPPORT TO IMPLEMENTATION OF THE *GLOBAL PLAN OF ACTION* AT NATIONAL LEVEL

12. The *Global Plan of Action*<sup>16</sup> describes the essential role of the FAO in supporting country-driven efforts to implement the *Global Plan of Action*, in particular, in continuing to facilitate global and regional collaboration and networks; supporting the convening of intergovernmental meetings; maintaining and further developing the Domestic Animal Diversity Information System (DAD-IS); developing communication products; providing technical guidelines and assistance, and coordinated training programmes; promoting the transfer of technologies relating to sustainable use, development and conservation of animal genetic resources; and coordinating future preparation of global status and

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<sup>15</sup> Angola, Cuba, Denmark, Ethiopia, Fiji, Hungary, India, Ireland, Nicaragua, Pakistan, Slovakia, Switzerland and the South Pacific Community (SPC).

<sup>16</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 58–61, <ftp://ftp.fao.org/docrep/fao/010/a1404e/a1404e00.pdf>

trends reports on animal genetic resources.<sup>17, 18</sup> The International Technical Conference specifically urged FAO to continue to lead global updating of data on the status and trends of animal genetic resources<sup>19</sup>, and to support developing countries in this process, adding to the information collected during the preparation of the *State of the World*, and in accordance with the guidance provided in the *Global Plan of Action*<sup>20</sup>. The following paragraphs provide a detailed description of FAO activities in each Strategic Priority Area of the *Global Plan of Action*.

### **Strategic Priority Area 1. Characterization, inventory and monitoring of trends and risks**

#### *Research and capacity-building*

13. To allow a global analysis of breed diversity through molecular genetic characterization, FAO has continued to promote the international use of standard microsatellite marker sets for the various species of livestock. This is done in partnership with the International Society of Animal Genetics (ISAG)/FAO Advisory Group on Animal Genetic Diversity and the European Commission-funded project “A Global View of Livestock Biodiversity and Conservation” (GLOBALDIV).

14. The work of the ISAG/FAO Advisory Group on Animal Genetic Diversity progressed during the current reporting period. The Advisory Group met in the Netherlands in July 2008. It recommended the preparation of an updated version of the *Secondary guidelines: measurement of domestic animal diversity* to include new technologies for genotyping, and is providing assistance with this work.

15. The ISAG/FAO Advisory Group recommended the establishment of a bank of DNA from each major livestock species for the standardization of characterization studies. A central organization would distribute the DNA and create and operate a database to keep an inventory of the laboratories to which the DNA was provided. The Laboratory Unit of the FAO/International Atomic Energy Agency Joint Division for Nuclear Techniques in Food and Agriculture (AGE) was suggested as a host for the gene bank and database, and has tentatively agreed to participate.

16. Officers of the Global Focal point are serving as invited experts to GLOBALDIV, a three-year project funded by the European Commission in the framework of the AGRI GEN RES 2006<sup>21</sup> initiative that aims to disseminate current advanced and integrated methodologies for the characterization, evaluation, prioritization and conservation of animal genetic resources. The Global Focal Point hosted one meeting (October 2007) and was represented at two others (Germany in March 2008 and Italy in September 2008) and provided lecturers for a summer school on genetic characterization (Italy, September 2008). The Global Focal Point is contributing to a GLOBALDIV review article on: the current state of the art in breed characterization, production environment recording and basic demographic data, which will be published in a scientific journal with free and open access to the public. FAO also provided two editorials to the widely distributed GLOBALDIV Newsletter.

17. AGE, with the participation of ILRI, is supporting a coordinated research project entitled, “Gene-based Technologies in Livestock Breeding: Characterization of Small Ruminant Genetic

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<sup>17</sup> ITC-AnGR/07/REP paragraph 20.

[http://www.fao.org/ag/AGInfo/programmes/en/genetics/documents/Interlaken/Final\\_Report\\_en.pdf](http://www.fao.org/ag/AGInfo/programmes/en/genetics/documents/Interlaken/Final_Report_en.pdf)

<sup>18</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 22–23, Strategic Priority 14.

<ftp://ftp.fao.org/docrep/fao/010/a1404e/a1404e00.pdf>

<sup>19</sup> ITC-AnGR/07/REP, paragraph 20.

[http://www.fao.org/ag/AGInfo/programmes/en/genetics/documents/Interlaken/Final\\_Report\\_en.pdf](http://www.fao.org/ag/AGInfo/programmes/en/genetics/documents/Interlaken/Final_Report_en.pdf)

<sup>20</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 22–23, Strategic Priority 14.

<ftp://ftp.fao.org/docrep/fao/010/a1404e/a1404e00.pdf>

<sup>21</sup> European Commission: Council Regulation N°870/2004 establishing a Community programme on genetic resources in agriculture

Resources in Asia". The project involves phenotypic and genetic characterization of nearly 100 sheep and goat breeds in eight Asian and Near Eastern countries.<sup>22</sup> Equipment and training for participating scientists were provided by the project. Activities have been expanded to integrate data from previous characterization studies in other regions (in particular Europe and Africa) to allow for a global analysis of small ruminant diversity. AGE is collaborating with ILRI, the United States Department of Agriculture and the Universidade Estadual de São Paulo in Brazil on a genome scan study of genes influencing resistance to parasites in sheep. The AGE has also technically and financially supported activities within the scope of the International Bovine HapMap Project and the International Sheep HapMap project. The Domestic Animal Diversity Network (DAD-Net) listserv was used to alert scientists in developing countries about the possibility to participate free-of-charge in the Sheep HapMap project and the Global Focal Point coordinated interaction between scientists and the project coordinator.

18. AGE has developed a Web-accessible database for genetic characterization of small ruminants.<sup>23</sup> The database provides information about quantitative trait loci in sheep and goats and on molecular genetic characterization studies that have used the ISAG/FAO microsatellite panel.

#### *Institutional and technical support*

19. FAO, with support from Germany, is conducting a project to promote policies and strategies for the prevention and control of highly pathogenic avian influenza (HPAI) in Cambodia, Egypt and Uganda. The project focuses on smallholder livelihoods and biodiversity. In the project's poultry diversity component, production systems are described, and local poultry populations are characterized phenotypically and genetically. To date, characterization of local poultry populations and description of production systems have been completed in Cambodia and Uganda; activities in Egypt are still ongoing. The molecular characterization is performed by ILRI for all countries, with other aspects of the characterization work being conducted by local partners. AGE is supporting National Technical Cooperation Projects involving characterization of animal genetic resources in five countries<sup>24</sup>.

20. To complement the guidelines developed for molecular characterization (Measurement of Domestic Animal Diversity – MoDAD), FAO has initiated the preparation of guidelines for phenotypic characterization. A preliminary draft, in Spanish, has been developed with support from Spain.

#### *Awareness raising and information*

21. FAO has continued to produce AGRI; issues 40 to 43 were published during the current reporting period. As of October 2008, nearly 2 000 persons were subscribed to AGRI. For the International Technical Conference, a special AGRI CD-ROM – containing issues 1 to 41 and a user-friendly tool for searching the archive – was produced. A DVD entitled *Animal genetic resources around the world – promoting diversity* was also produced, containing a selection of films related to the management of animal genetic resources. Both products were widely distributed and quickly went out of print.

22. The Global Focal Point has continued to maintain and develop DAD-IS, with extra-budgetary funding from the Governments of Norway, Sweden, Spain and Japan. A module has been implemented which enables users of DAD-IS to analyse the data currently available in the system and to display graphics and overviews similar to those found in the *State of the World* (Part 1 Section B – Status of animal genetic resources)<sup>25</sup>.

23. FAO has outlined possible elements of a system for countries to use to identify breeds at risk and to implement appropriate responses in document *Development of country-based early warning*

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<sup>22</sup> Bangladesh, China, Indonesia, Iran (Islamic Republic of), Pakistan, Saudi Arabia, Sri Lanka, Viet Nam.

<sup>23</sup> <http://www.sheepgenome.com>

<sup>24</sup> Burkina Faso, Morocco, Peru, Sri Lanka, Zambia.

<sup>25</sup> <ftp://ftp.fao.org/docrep/fao/010/a1250e/a1250e02.pdf>

and response systems for animal genetic resources<sup>26</sup>. The preparation of Guidelines to assist National Coordinators with surveying and monitoring of animal genetic resources is planned.

24. FAO is a partner in the Farm Animal Biodiversity Information System Network (FABIS-net), which is being funded by the European Commission and supports the establishment of national information systems. Following the launch of the European Farm Animal Biodiversity Information System (EFABIS)<sup>27</sup> in 2006, DAD-IS:3 was launched in February 2007. Moreover, 13 countries<sup>28</sup> have set up national information systems within FABIS-net. The data is being synchronized monthly between the different levels – national – regional EFABIS and global DAD-IS. National Coordinators were contacted and particularly requested to update their national breed-related data in view of the preparation of the next status and trends report (see document *Status and trends report on animal genetic resources – 2008*<sup>29</sup>).

25. National Coordinators were informed that they need to request a new user name and password to enable them to edit and update national breed-related data in DAD-IS. Fifty-six National Coordinators have requested and received new user names and passwords. National Coordinators from a further 11 countries have received a user name and password to update their national data in EFABIS, and the National Coordinators of the countries with national information systems under FABISNet are able to edit and update their national data directly. In total, 80 of the 149 National Coordinators currently appointed (54 percent) have either set up a national information system or requested a user name and password to edit and update their national data in the regional or global information systems. However, only 30 National Coordinators have actually updated any of their national data since early 2007.

26. To encourage and support National Coordinators to regularly update their national databases in FABISnet/DAD-IS, FAO is responsible for a FABISnet work package that involves the georeferencing of the system's data on breed distribution. A module that will allow detailed description of the production environments of each breed of livestock is also being developed. An expert meeting was held in May 2008 to further develop and specify a system to describe production environments.<sup>30</sup> The topic will be presented at a special workshop related to the World Conference for Animal Production in South Africa (November 2008).

27. The GEF-funded 2010 Biodiversity Indicators Partnership project, a cross-sectoral project, which includes a component on animal genetic resources, will contribute to the development of guidelines for surveying and monitoring, and tools and methodology for developing and testing the CBD headline indicator “trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance”. FAO has been requested to provide input on animal genetic resources for the next issue of the *Global Biodiversity Outlook*. This will require countries to improve the quality of their national breed-related data in DAD-IS.

28. Training in the use of DAD-IS has been provided at several venues, including National Coordinator workshops in Chile, Lithuania and Brazil (2008).

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<sup>26</sup> CGRFA/WG-AnGR-5/09/4

<sup>27</sup> <http://efabis.tzv.fal.de/>

<sup>28</sup> Austria, Cyprus, Estonia, Georgia, Iceland, Ireland, Italy, Netherlands, Poland, Slovakia, Slovenia, Switzerland, United Kingdom.

<sup>29</sup> CGRFA/WG-AnGR-5/09/Inf. 7

<sup>30</sup> FAO. 2008. *Report of the FAO/WAAP Expert Meeting on Production Environment Descriptors for Animal Genetic Resources, held Capralola Italy, 6–8 May, 2008*, edited by D. Pilling, B. Rischkowsky & B. Scherf. Rome



## Strategic Priority Area 2. Sustainable use and development

### *Research and capacity-building*

29. The Global Focal Point contributed to various courses for researchers from developing countries organized by partner organizations, including the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) “International Master in Animal Breeding and Reproduction Biotechnology” course held in Spain from October 2007 to June 2008, which was attended by 15 participants from seven countries<sup>31</sup>, and the “European Master in Animal Breeding and Genetics” (EM-ABG), a two-year MSc programme supported by the European Union (EU) and provided by six EU universities with active training and research programmes in animal breeding and genetics, which aims to train students who wish to contribute to the development of sustainable livestock breeding; to date, 45 students from 24 countries have enrolled in the EM-ABG<sup>32</sup>.

30. Presentations on the State of the World and the *Global Plan of Action* as well as DAD-IS training were given at a course held on “Capacity Building for Sustainable Use of Animal Genetic Resources in Developing Countries” held in Ethiopia for university teachers and researchers from West and Central Africa, which was developed by ILRI and the Swedish Agricultural University (SLU). The course was attended by 21 participants from 11 countries<sup>33</sup>. A similar course has been held for teachers and researchers from East and Southern Africa in November 2008 and was attended by 23 participants from 14 countries<sup>34</sup>.

31. AGE held two training courses related to the sustainable use of animal genetic resources. The first (May 2008) dealt with record keeping and data analysis and the second (September 2008) concerned reproductive performance and production in artificially inseminated females and their calves. The training courses covered animal identification and performance recording, assessment of productivity, and breeding and selection under African conditions. Both courses were hosted by Botswana; 16 students from 14 countries<sup>35</sup> and 23 students from 16 countries<sup>36</sup> were invited to the respective courses.

### *Institutional and technical support*

32. In response to the need for technical assistance to ensure the better use, development and conservation of animal genetic resources, FAO further invested in providing assistance, both directly and through cooperation with other organizations. Several of the technical assistance initiatives for the current reporting period, including FAO Technical Cooperation Projects (TCP), are listed below:

33. TCP/ALB/3001 aims to assist the Government of Albania to develop and implement a National Strategy for *in situ* conservation of animal genetic resources and a National Action Plan for sustainable management of animal genetic resources.

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<sup>31</sup> Algeria, Columbia, Egypt, Peru, Spain, Tunisia, Turkey.

<sup>32</sup> India (10 students), Ethiopia (6), Bangladesh (4), Islamic Republic of Iran (3), Nepal (2), Ghana (2), Bosnia and Herzegovina (1), Botswana (1), Cameroon (1), Chile (1), China (1), Egypt (1), El Salvador (1), Indonesia (1), Italy (1), Malaysia (1), Mongolia (1), Netherlands (1), Philippines (1), Rwanda (1), South Africa (1), Thailand (1), Uganda (1), United States of America (1).

<sup>33</sup> Benin, Burkina Faso, Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mali, Nigeria, Senegal, Sierra Leone, South Africa.

<sup>34</sup> Ethiopia, Kenya, Somali, Sudan, Tanzania, Uganda, Botswana, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe

<sup>35</sup> Burkina Faso, Botswana, Cameroon, Democratic Republic of the Congo, Egypt, Ghana, Kenya, Madagascar, Mauritius, Niger, Sudan, Tunisia, Uganda, Zimbabwe.

<sup>36</sup> Algeria, Burkina Faso, Botswana, Cameroon, Central African Republic, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Niger, Nigeria, Sudan, Tunisia, Zambia, Zimbabwe.

34. TCP Facility project TCP/ARM/3101 aims to formulate a national breeding strategy for the sustainable use and development of livestock in Armenia. The strategy is being prepared by a task force composed of relevant stakeholders, including the Ministry of Agriculture, the farmers' national association, extension services, and research and educational institutions. The decision-support guidelines are instrumental in organizing and structuring the work of the task force and in drafting the national breeding strategy.

35. TCP Facility project TCP/BDI/3103 aims to support national authorities in developing a national policy and strategy for the management and improvement of animal genetic resources. Due to the lack of a livestock policy, it was decided to dedicate the resources of the current TCP-Facility to establishing the orientation for livestock development. These are key elements for establishing a genetic improvement strategy, for which a new TCP project will be formulated.

36. TCP MON/3105 (Mongolia), NEP/3105 (Nepal) and MYN/3201 (Myanmar) have the objectives of genetic improvement of dairy cattle through the establishment of pedigree and performance recording schemes, rehabilitation and support to artificial insemination services, and improved animal feeding.

37. FAO participates as a technical advisor in the project "In situ conservation of endemic ruminant livestock in West Africa", jointly financed by the Global Environment Facility and the African Development Bank. The objective of the project is to ensure sustainable *in situ* conservation of targeted endemic ruminant livestock breeds – N'dama cattle, Djallonke sheep and the West African Dwarf goat – in four West African countries (Gambia, Guinea, Mali and Senegal). The project also aims to establish effective models for community-based management of endemic ruminant livestock and their habitat at project pilot sites, and strengthen production, market, and policy environments in support of these breeds.

38. In the Lao People's Democratic Republic, development of local goat production and the amendment of regulations related to environmental impact assessment to include agrobiodiversity were supported from 2005-2008 through the FAO/Netherlands Partnership Programme. A fact sheet was developed in English<sup>37</sup> and Laotian summarizing the findings of the project.

39. AGE supported Regional Technical Cooperation projects on cattle breeding in Asia and Africa. Participants from 22 African countries<sup>38</sup> and 13 Asian countries<sup>39</sup> received technical support for the establishment and management of animal genetic resources, with an emphasis on sustainable utilization of local breeds. In addition, AGE is supporting National Technical Cooperation projects involving sustainable use of animal genetic resources in 12 countries<sup>40</sup>.

40. The Global Focal Point, with extra-budgetary funding from the Government of Norway, has continued the development of decision-support guidelines for establishing livestock breeding strategies in low- and medium-input production systems. The guidelines were discussed and evaluated at six workshops, which were held in France (September 2006), India (November 2006), Kenya (March 2007), the United Republic of Tanzania (March 2008), Peru (March 2008) and Italy (July 2008). These evaluations allowed the identification of gaps and weaknesses in the guidelines, and actions were taken to amend them. The draft guidelines are available to the Working Group in document *Draft guidelines for establishing animal breeding strategies in low- and medium input production systems*.<sup>41</sup>

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<sup>37</sup> <ftp://ftp.fao.org/docrep/fao/010/ai759e/ai759e05.pdf>

<sup>38</sup> Algeria, Botswana, Burkina Faso, Cameroon, Central African Republic, Congo, Egypt, Ghana, Kenya, Libyan Arab Jamahiriya, Madagascar, Mali, Mauritius, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Uganda, United Republic of Tanzania, Tunisia, Zimbabwe.

<sup>39</sup> Bangladesh, China, India, Indonesia, Malaysia, Mongolia, Myanmar, Pakistan, Republic of Korea, Sri Lanka, Philippines, Thailand, Viet Nam.

<sup>40</sup> Burkina Faso, Cameroon, Honduras, Mongolia, Morocco, Myanmar, Niger, Peru, Sierra Leone, Sri Lanka, United Republic of Tanzania, Zambia.

<sup>41</sup> CGRFA/WG-AnGR-5/09/Inf. 5

41. The Global Focal Point, as part of the board of the International Committee for Animal Recording (ICAR), accepted the responsibility to establish the ICAR Task Force for Animal Identification and Performance Recording in Developing Countries. The Task Force was launched in March 2008 and includes representatives from seven countries<sup>42</sup>. The first meeting of the task force was held May 2008 (Hungary) in conjunction with a FAO Regional Workshop on “Development of animal identification and recording systems for veterinary surveillance and livestock development in countries of Central and Eastern Europe”, which was attended by participants from ten countries<sup>43</sup>. A background paper which will be used as a road map for preparing the decision-support guidelines for implementing animal identification and recording in developing countries is under preparation.

#### *Awareness raising and information*

42. The Global Focal Point contributed to the production of two FAO publications through the organization’s Interdepartmental Working Groups (IDWG). The IDWG on Biotechnology published the book *Marker-assisted selection – current status and future perspectives in crops, livestock, forestry and fish*<sup>44</sup>. The Global Focal Point contributed to the full production process. The book was widely distributed and is already out of print. The IDWG on Biological Diversity for Food and Agriculture produced the publication *People and animals – traditional livestock keepers: guardians of domestic animal diversity*<sup>45</sup>. The Global Focal Point contributed to review, editing and distribution of the publication. The book was widely distributed and is already out of print. AGE published two technical documents on the management of reproduction in female animals.<sup>46,47</sup>

### **Strategic Priority Area 3. Conservation**

#### *Institutional and technical support*

43. The Global Focal Point has initiated the development of a new set of guidelines on conservation. DAD-Net was used to survey potential users on their needs for technical support for cryoconservation and required content of the new guidelines. A workshop on cryoconservation methods and the development of guidelines are planned for 2009.

44. The Global Focal Point participated in the inception workshop of, the European Livestock Breeds Ark and Rescue Net (ELBARN)<sup>48</sup>, which is the first EU project solely coordinated by civil society organizations (EU reference: AGRI GEN RES 066)<sup>49</sup>. The project will document existing sites that can serve as “Ark and Rescue Centres”. The information will be made available in a Web-based database. The project will also encourage the founding of new Ark and Rescue Centres and develop guidelines for such centres.

#### *Awareness raising and information*

45. As an activity of the GLOBALDIV project, the Global Focal Point has supervised the preparation of a review article on the state of the art in methods to prioritize breeds for conservation programmes, which will be published in a scientific journal with free and open access to the public. FAO also provided delivered a conference paper and a GLOBALDIV Newsletter editorial on conservation of poultry genetic resources. All of these papers were widely disseminated.

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<sup>42</sup> Argentina, France, Hungary, India, Namibia, South Africa, Uruguay.

<sup>43</sup> Armenia, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Republic of Moldova, Russian Federation, Serbia, The former Yugoslav Republic of Macedonia, Ukraine.

<sup>44</sup> <http://www.fao.org/docrep/010/a1120e/a1120e00.htm>

<sup>45</sup> <ftp://ftp.fao.org/docrep/fao/010/a1057e/a1057e.pdf>

<sup>46</sup> <http://www-naweb.iaea.org/nafa/aph/public/aph-tecdoc-1533.pdf>

<sup>47</sup> <http://www-naweb.iaea.org/nafa/aph/public/aph-tecdoc-1571.pdf>

<sup>48</sup> <http://www.save-foundation.net/ELBARN>

<sup>49</sup> [http://ec.europa.eu/agriculture/envir/biodiv/genres/action/066/index\\_en.htm](http://ec.europa.eu/agriculture/envir/biodiv/genres/action/066/index_en.htm)

## Strategic Priority Area 4. Policies, institutions and capacity-building

### *Institutional and technical support*

46. FAO has prepared guidelines to assist the preparation of national strategies and action plans for animal genetic resources for food and agriculture, which will provide guidance to countries as they implement the *Global Plan of Action* on a national basis. The draft guidelines are available for review by the Working Group in document *Draft guidelines to assist the preparation of national strategies and action plans for animal genetic resources for food and agriculture*<sup>50</sup>.

47. The Global Focal Point held workshops (Chile May 2007<sup>51</sup>; Brazil April 2008<sup>52</sup>) with National Coordinators in Latin America and the Caribbean, and assisted them in the process of establishing the Regional Focal Point (RFP), which has led to the election of EMBRAPA (Brazil). The workshops also provided the opportunity for the National Coordinators to elect a Permanent Steering Committee (PSC). Following the example of the European RFP, a subregional composition of the PSC was agreed upon, as were the main functions of the PSC and the modalities for the election of its members. Operational rules for the RFP, including funding mechanisms, were proposed. Regional projects were discussed during these workshops, but no proposals have yet been prepared. The Global Focal Point also participated in the annual meetings (Ireland 2007; Lithuania 2008) of the National Coordinators within the European Region. Regional National Coordinator workshops in Asia and the Near East are planned for 2009.

### *Awareness raising and information*

48. The Interlaken Conference was accompanied by a communication strategy. A special Web site<sup>53</sup> was set up containing conference documents, materials from side events<sup>54</sup>, conference photos<sup>55</sup>, information for the media<sup>56</sup>, daily reports<sup>57</sup> and press releases<sup>58</sup> in all FAO languages. A press conference was held and a press kit prepared. These actions resulted in broad media coverage. Many articles are listed and linked to on the Conference Web site<sup>59</sup>. In addition, a large number of information products have been developed, published and widely distributed during the period since the International Technical Conference. For example, a set of six posters detailing FAO's work on animal genetic resources and highlighting the Global Plan of Action were presented at the Thirteenth Meeting of SBSTTA (Italy). A large number of other information products have been developed, published and widely distributed (see above for details).

49. The Global Focal Point continues to maintain the Domestic Animal Diversity Network (DAD-Net) as an informal forum for the discussion of issues relevant to the management of animal genetic resources at national, regional and international levels. DAD-Net was launched in February 2005. After free registration, users receive, and can post, messages. In October 2008, 1 300 persons from more than 114 countries were subscribed to the network. Over 3.5 years of operation, more than 1 100 messages have been exchanged. A survey<sup>60</sup> was conducted in July 2008 to assess the performance of

<sup>50</sup> CGRFA/WG-AnGR-5/09/Inf. 6

<sup>51</sup> Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Mexico, Peru, Uruguay.

<sup>52</sup> Argentina, Barbados, Bolivia, Brazil, Costa Rica, Ecuador, Guatemala, Jamaica, Paraguay, Peru, Suriname, Uruguay.

<sup>53</sup> <http://www.fao.org/ag/againfo/programmes/en/genetics/angrvent2007.html>

<sup>54</sup> [http://www.fao.org/ag/againfo/programmes/en/genetics/ITC\\_sidevent.html](http://www.fao.org/ag/againfo/programmes/en/genetics/ITC_sidevent.html)

<sup>55</sup> [http://www.fao.org/ag/againfo/programmes/en/genetics/ITC\\_photoconf.html](http://www.fao.org/ag/againfo/programmes/en/genetics/ITC_photoconf.html)

<sup>56</sup> [http://www.fao.org/ag/againfo/programmes/en/genetics/ITC\\_press.html](http://www.fao.org/ag/againfo/programmes/en/genetics/ITC_press.html)

<sup>57</sup> [http://www.fao.org/ag/againfo/programmes/en/genetics/ITC\\_daily-rep.html](http://www.fao.org/ag/againfo/programmes/en/genetics/ITC_daily-rep.html)

<sup>58</sup> 11 September 2007: <http://www.fao.org/newsroom/en/news/2007/1000655/index.html> and 4 September 2007: <http://www.fao.org/newsroom/en/news/2007/1000650/index.html>

<sup>59</sup> [http://www.fao.org/ag/againfo/programmes/en/genetics/ITC\\_news.html](http://www.fao.org/ag/againfo/programmes/en/genetics/ITC_news.html)

<sup>60</sup> <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,525>

DAD-Net and identify potential improvements. DAD-Net has proved to be an effective means of sharing experiences, enabling participants to request information and facilitating informal discussions among individuals involved in various aspects of the management of AnGR, in particular for individuals from countries where such means do not otherwise exist.

50. The Global Focal Point contributed to the expert meeting on Climate Change and Biodiversity for Food and Agriculture<sup>61</sup> in the preparation of the High-Level Conference on World Food Security: the Challenges of Climate Change and Bioenergy, and gave invited presentations on the interactions between animal genetic resources and climate change at several international conferences (Germany, Italy, Lithuania, South Africa and Tunisia). The presentations covered positive and negative effects of livestock on the environment, environment-related threats to livestock biodiversity, and policy recommendations to address these issues.

51. Representatives from the Global Focal have participated as invited speakers at a number of meetings of organizations with programmes related to the management of animal genetic resources. These meetings were held in locations spread throughout the world, including Australia, Belgium, Ireland, Italy, Kenya, Mexico, the Netherlands, Poland, Portugal, South Africa, Thailand, Tunisia and Viet Nam. The meetings included the FAO Conference “Poultry in the 21st Century – Avian Influenza and Beyond” at which policy advice on the maintenance of poultry genetic diversity in the context of HPAI control programmes was presented.

52. The Global Focal Point has collaborated with the FABRE-TP (Farm Animal Breeding Technology Platform of the EU) with regard to priorities in animal genetic resources research in Europe. The Global Focal Point participated in a FABRE-TP survey on research priorities, which indicated the need for continued work on valuation and maintenance of livestock genetic diversity on a global scale. The feedback on research priorities will be used by the European Commission in establishing future calls for research proposals regarding animal genetic resources.

53. The Thirty-fourth session of the FAO Conference recognized the important role of small-scale livestock keepers, particularly in developing countries, as custodians of most of the world’s animal genetic resource diversity. It requested the Commission to address this issue in its report to the 2009 Session of the FAO Conference<sup>62</sup>. FAO has prepared the documents *The roles of small-scale livestock keepers as custodians of animal genetic resources*<sup>63</sup> and *Contributions of smallholder farmers and pastoralists to the development, use and conservation of animal genetic resources*<sup>64</sup> for consideration by the Working Group.

#### **IV. SUPPORT BY FAO TO GLOBAL PLAN OF ACTION PART III. IMPLEMENTATION AND FINANCING OF THE *GLOBAL PLAN OF ACTION***

54. The *Global Plan of Action*<sup>65</sup> describes the essential role of the FAO in supporting country-driven efforts to implement the *Global Plan of Action*, in particular to facilitate global and regional collaboration and networks, and mobilizing donor resources for animal genetic resources. The *Global Plan of Action*<sup>66</sup> recommends that FAO ensure adequate regular-programme support for the implementation of the *Global Plan of Action*<sup>67</sup> and should pursue within relevant international mechanisms, funds and bodies, means by which they might contribute to the implementation of the *Global Plan of Action*.<sup>68</sup>

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<sup>61</sup> <http://www.fao.org/foodclimate/expert/em8/outputs-em8/en/>

<sup>62</sup> C 2007/REP, para 146.

<sup>63</sup> CGRFA/WG-AnGR-5/09/5

<sup>64</sup> CGRFA/WG-AnGR-5/09/Inf. 4

<sup>65</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 58–61.

<sup>66</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 65.

<sup>67</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 65.

<sup>68</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 66.

55. The International Technical Conference requested the Commission to oversee the implementation of the *Global Plan of Action* within the context of the Commission's Multi-year Programme of Work.<sup>69</sup> The Commission, at its next session, will consider modalities for the presentation of the progress reports, as well as the criteria and parameters for the evaluation of the progress in the implementation of the *Global Plan of Action*.<sup>70</sup> FAO has prepared the documents *Draft Strategic Plan 2010-2017 for the implementation of the Multi-year Programme of Work: Animal Genetic Resources*<sup>71</sup> and *Evaluating progress in the implementation of the Global Plan of Action for Animal Genetic Resources*<sup>72</sup> for review by the Working Group.

56. Since the Fourth Session of the Working Group, FAO has continued to provide information on funding sources and grants through the DAD-net listserver. Linkages between DAD-IS, as the information portal on animal genetic resources, and the Facilitating Mechanism for the Implementation of the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (FM-PGRFA)<sup>73</sup> are being established, so that the updated donor database of the FM-PGRFA will be accessible to the National Coordinators for Animal Genetic Resources.

57. During the spring of 2008, FAO established a Programme Entity 2BA03 "Support to the Global Plan of Action for Animal Genetic Resources", which is entirely devoted to the *Global Plan of Action*. FAO's biennial programme and budget planning cycle and the Commission's ten-year planning within the Multi-year Programme of Work provide a flexible, but predictable, framework to facilitate the implementation of the *Global Plan of Action* under the guidance of the Commission and its Working Group on Animal Genetic Resources for Food and Agriculture. FAO has further been involved in the development of TCPs and TCP-Facilities that may lead to larger investment projects (see above).

58. The *Global Plan of Action* further recommends the establishment of an FAO Trust Account.<sup>74</sup> Some donors now provide programme funds to strengthen the synergies that exist between normative and operational activities and between global and country-level programmes to better assist Members in meeting the Millennium Development Goals. Such programme funds are fully integrated with the major programmes as defined in FAO's PWB for the 2008-09 biennium approved by the Thirty-fourth Session of the FAO Conference, with particular emphasis on multidisciplinary initiatives. Genetic resources for food and agricultures are one such area. The funds under these programme cooperation agreements have helped FAO to provide catalytic funds for special activities at all levels. One trust fund for genetic resources has been established under the strategic partnership for rural development between Sweden and FAO, and another one under the FAO-Norway Partnership Cooperation Agreement, which has recently been joined by the Netherlands. FAO is also a participant of several European Union funded projects that provide stipends for developing-country participants as well as generating and disseminating knowledge. FAO is preparing a multi-donor trust fund programme to facilitate implementation of the *Global Plan of Action*.

59. In agreement with the Bureau of the Commission, FAO developed and widely disseminated questionnaires on country needs and donor priorities and programmes, the details of which are presented in document *Results of questionnaires on country needs and donor priorities to implement the Global Plan of Action for Animal Genetic Resources*<sup>75</sup>. The Animal Production and Health Division of the FAO has also undertaken consultations with other FAO units and international organizations to explore relevant examples of funding strategies or funding mechanisms. The outcomes of these consultations are presented in document *Towards a Funding Strategy for the implementation of the Global Plan of Action for Animal Genetic Resources*<sup>76</sup>.

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<sup>69</sup> ITC-AnGR/07/REP, paragraph 25

<sup>70</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 52.

<sup>71</sup> CGRFA/WG-AnGR-5/09/7

<sup>72</sup> CGRFA/WG-AnGR-5/09/3 Add. 1

<sup>73</sup> <http://www.globalplanofaction.org/>

<sup>74</sup> *Global Plan of Action for Animal Genetic Resources*, paragraph 68.

<sup>75</sup> CGRFA/WG-AnGR-5/09/Inf. 3

<sup>76</sup> CGRFA/WG-AnGR-5/09/6

**Annex 1: Development of guidelines and manuals**

| Title  | SPA | Dates            | Location                                   | List of countries participating  |
|--|-----|------------------|--|--|
| FAO/ILRI Workshop on Policies and Strategies for the Development of Animal Genetic Resources   | 2   | 6–8 March 2007   | Nairobi, Kenya                             | Kenya, Uganda, United Republic of Tanzania   |
| International Committee For Animal Recording (ICAR) – Board Meeting  | 2   | 30–31 May 2007   | Verona, Italy                              | Canada, Denmark, Estonia, France Germany, Italy Latvia, Spain, United Kingdom, United States of America  |
| FAO/Central Veterinary Laboratory Workshop on Policies and Strategies for the Development of Animal genetic resources  | 2   | 17–19 March 2008 | Dar Es Salaam, United Republic of Tanzania | Kenya, United Republic of Tanzania   |
| FAO/University of La Molina Workshop on Policies and Strategies for the Development of Animal Genetic Resources  | 2   | 26–28 March 2008 | Lima, Peru                                 | Argentina, Bolivia ,Colombia, Peru,  |
| FAO/WAAP Workshop on Production Environment Descriptors for Animal Genetic Resources   | 1   | 6–8 May 2008     | Caprarola, Italy                           | experts from Australia, Brazil, Ethiopia, Italy, Kenya, Netherlands, Poland, South Africa, Switzerland, Syria  |
| 1 <sup>st</sup> Meeting of the FAO-ICAR Task Force For Developing Countries and rhe FAO Regional Workshop on “Development of Animal Identification and Recording Systems for Veterinary Surveillance and Livestock Development in Countries of Central and Eastern Europe” | 2   | 26–30 May 2008   | Budapest, Hungary                          | Argentina, Armenia, Belarus, Bosnia and Herzegovina, Croatia, France (members of the ICAR task force), Georgia, Hungary, Namibia, Republic of Moldova, Russian Federation, Serbia, South Africa, The former Yugoslav Republic of Macedonia, Ukraine, Uruguay |
| Expert Meeting for finalizing the Guidelines for Establishing Animal Breeding Strategies in Low- and Medium-Input Production Systems   | 2   | 7–11 July 2008   | Terni, Italy                               | Argentina, Egypt, United Kingdom   |

**Annex 2: Regional workshops for National Coordinators, FAO and in collaboration with partners**

| Title   | Dates               | Location              | List of countries participating   |
|---|---------------------|-----------------------|---|
| Regional Workshop for National Coordinators for Animal Genetic Resources in Latin America and the Caribbean | 23-25 May 2007      | Santiago, Chile       | Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Mexico, Peru, Uruguay  |
| Regional Workshop for National Coordinators in East and Southern Africa                                     | 24–25 May 2007      | Addis Ababa, Ethiopia | Angola, Botswana, Ethiopia, Kenya, Namibia, Uganda, United Republic of Tanzania, Zambia,  |
| 13th workshop for European National Coordinators for the Management of Farm Animal Genetic Resources        | 23-25 August 2007   | Dublin, Ireland       | Albania, Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom                             |
| After Interlaken Seminar of the Nordic Genebank (NGH) Farm Animals  | 10–11 December 2007 | Malmoe, Sweden        | Denmark, Estonia, Faeroe Islands, Finland, Iceland, Netherlands, Norway, Poland, Sweden,  |
| Regional Workshop for National Coordinators for Animal Genetic Resources in Latin America and the Caribbean | 10–13 April 2008    | Brasilia, Brazil      | Argentina, Barbados, Brazil, Bolivia, Costa Rica, Ecuador, Guatemala, Jamaica, Paraguay, Peru, Suriname, Uruguay  |
| 14th Workshop for European National Coordinators for the Management of Farm Animal Genetic Resources        | 21-23 August 2008   | Vilnius, Lithuania    | Albania, Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom |



**Annex 3: Technical trainings, FAO and in collaboration with partners**

| Training  | Date                            | Location                   | List of countries participating   |
|---|---------------------------------|----------------------------|---|
| ILRI and the Swedish Agricultural University (SLU) course: Capacity Building for Sustainable Use of Animal Genetic Resources in Developing Countries, for university teachers and researchers from West and Central Africa. | 26 November to 14 December 2007 | Addis Ababa, Ethiopia      | Benin, Burkina Faso, Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mali, Nigeria, Senegal, Sierra Leone  |
| European Livestock Breeds Ark and Rescue Net (ELBARN)   | 8–10 February 2008              | Kutna Hora, Czech Republic | Albania, Austria, Belgium, Croatia, Czech Republic, France, Germany, Hungary, Italy, Montenegro, Netherlands, Norway, Portugal, Serbia, Spain, Switzerland, United Kingdom  |
| International Master in Animal Breeding and Reproduction Biotechnology, jointly organized by CIHEAM, Polytechnic University of Valencia (UPV) and other Spanish institutions  | 7–11 March 2008                 | Valencia, Spain            | Algeria, Columbia, Egypt, Peru, Spain, Tunisia, Turkey  |
| AGE training course on record keeping and data analysis. The training course covered animal identification and performance recording under African conditions.  | 26–30 May 2008                  | Botswana                   | Burkina Faso, Botswana, Cameroon, Democratic Republic of the Congo, Egypt, Ghana, Kenya, Madagascar, Mauritius, Niger, Sudan, Tunisia, Uganda, Zimbabwe   |
| AGE training course on reproductive performance and production in AI females and their calves. The training courses covered assessment of productivity and breeding and selection under African conditions.                 | 1–5 September 2008              | Botswana                   | Algeria, Burkina Faso, Botswana, Cameroon, Central African Republic, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Niger, Nigeria, Sudan, Tunisia, Zambia, Zimbabwe  |
| First Summer School of the GLOBALDIV project  | 8–13 September 2008             | Piacenza, Italy            | 45 students from 23 countries: Belarus, Belgium, Bhutan, Brazil, Canada, China, Czech Republic, Egypt, Estonia, France, Germany, Hungary, India, Iran (Islamic Republic of), Italy, Jordan, Nigeria, Poland, Slovenia, Sudan, Tunisia, Turkey, and Viet Nam |
| ILRI and the Swedish Agricultural University (SLU) course: Capacity Building for Sustainable Use of Animal Genetic Resources in Developing Countries for university teachers and researchers from East and Southern Africa. | 3–21 November 2008              | Ethiopia                   | Ethiopia, Kenya, Somali, Sudan, Tanzania, Uganda, Botswana, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe   |

**Annex 4: Conferences attended**

| Conference title  | Dates                       | Location               |
|---|-----------------------------|------------------------|
| OIE/FAO Conference on “Vaccination as a tool for the control of avian influenza”  | 20–22 March 2007            | Verona, Italy          |
| International Scientific conference “Conservation of animal genetic resources in Poland and Europe – achievements and dilemmas”   | 30 May to 2 June 2007       | Balice, Poland         |
| Meeting of SAVE Foundation (Safeguard for Agricultural Varieties in Europe) and the International Conference “Use it or lose it – Conservation of livestock breeds in Europe”   | 28–30 September 2007        | Guastalla, Italy       |
| Side event to the 5th ABS Working Group of the CBD, by the Government of Switzerland and FAO  | 8 October 2007              | Montreal, Canada       |
| International Symposium on Biotechnology Applied to Animal Genetic Improvement and Management of AnGR, during VI Latin American and the Caribbean Meeting on Agriculture Biotechnology (REDBIO)   | 22–26 October, 2007         | Viña del Mar, Chile    |
| Side event to the Second Governing Body Meeting of the International Treaty for PGRFA, by the Swiss Federal Office for Agriculture and FAO  | 31 October 2007             | Rome, Italy            |
| FAO conference “Poultry in the 21 <sup>st</sup> Century – Avian Influenza and Beyond”   | 3–9 November 2007           | Bangkok, Thailand      |
| ILRI John Vercoe International Conference on Animal Breeding for Poverty Alleviation: harnessing new science for greater impact   | 7–11 November 2007          | Nairobi, Kenya         |
| Sixth Symposium on Genetic Resources for Latin America and the Caribbean  | 13–16 November 2007         | Mexico City, Mexico    |
| Workshop “Climate Change and Biodiversity for Food and Agriculture” organized by FAO, Bioversity International in partnership with the Platform for Agrobiodiversity Research (PAR) and the Secretariat of the Convention on Biological Diversity (CBD) | 13–14 February 2008         | Rome, Italy            |
| FAO/Government of Switzerland: Side event during SBSTTA-13  | 19 February 2008            | Rome, Italy            |
| FABRE-TP society meeting  | 16 April 2008               | Brussels, Belgium      |
| International Conference on Livestock and Global Climate Change   | 17– 20 May 2008             | Hammamet, Tunisia      |
| Interagency donor group meeting   | 5–6 June 2008               | Eschborn, Germany      |
| XXIII World’s Poultry Congress  | 29 June to 4 July 2008      | Brisbane, Australia    |
| Joint Meeting of the 21st International Grassland Congress and the 8th International Rangeland Congress   | 29 June to 5 July 2008      | Hohhot, China          |
| First International Symposium on Conservation, Improvement and Utilization of Criollo and Colombian Animal Genetic Resources  | 12–16 August, 2008          | Bogota, Colombia       |
| Tenth Meeting of the Commission for Livestock Development for Latin American and the Caribbean (X CODEGALAC)  | 17–19 September 2008        | Brasilia, Brazil       |
| Sixth Iberian Congress on Animal Genetic Resources  | 18–20 September 2008        | Lisbon, Portugal       |
| World Trade Institute interdisciplinary workshop on “Rights to Animal Genetic Resources”  | November 27–28, 2008        | Berne, Switzerland     |
| Seventh RBI Global Conference on the Conservation of Animal Genetic Resources: The Impact of Globalization on the Conservation of Animal Genetic Resources  | 14–18 September 2008.       | Hanoi, Viet Nam        |
| Tenth World Conference on Animal Production, including FAO/ARC/ILRI Workshop on Conservation, Management and Use of Marginal Farm Animal Genetic Resources  | 23–28, 2008                 | Capetown, South Africa |
| Livestock keepers' Rights Workshop  | 30 November–2 December 2008 | Kalkbay, South Africa  |

### Annex 5: Projects, FAO and in collaboration with partners

| Project title  | SPA   | Donor            | Description  | List of countries participating  |
|--|-------|------------------|--|----------------------------------|
| The promotion of strategies of HPAI prevention and control that support sustainable livelihoods and protect poultry breed biodiversity(GCP/INT/010/GER).                     | 3     | Germany          | Promotes policies/strategies for prevention and control of highly pathogenic avian influenza (HPAI) that focus on smallholder livelihoods and biodiversity. Genetic characterisation of local poultry genetic resources in the three countries   | Cambodia, Egypt, Uganda          |
| Capacity building to support <i>in situ</i> conservation and use of animal genetic resources (TCP/ALB/3001)  | 4     | FAO              | Assists the Government of Albania to develop and implement a National Strategy for <i>in situ</i> conservation and a national action plan for sustainable management of animal genetic resources   | Albania                          |
| Formulation of a policy and strategy for the sustainable use and development of livestock (cattle) in Armenia through the implementation of breeding programmes TCP/ARM/3101 | 4     | FAO TCP Facility | Supports the formulation of a policy and strategy for the sustainable use and development of cattle in Armenia through the implementation of breeding programmes   | Armenia                          |
| Development of national policy and strategy for the management and the improvement of animal genetic resources in Burundi (TCP/BDI/3103-D)                                   | 4     | FAO TCP Facility | Supports national authorities in developing national policy and strategy documents for the management and improvement of animal genetic resources, as well as a proposal (plan) for their implementation   | Burundi                          |
| <i>In-situ</i> conservation of endemic ruminant livestock in West Africa.  | 3     | GEF and AfDB     | Promotes sustainable <i>in situ</i> conservation of targeted endemic ruminant livestock breeds – N'dama cattle, Djallonke sheep, and West African Dwarf goats. The project also aims to establish effective models for community -based management of endemic ruminant livestock and their habitat at project pilot sites, and to strengthen production, marketing and policy environments in support of these breeds. | Gambia, Guinea, Mali, Senegal    |
| TCP/MON/3105   | 2     | FAO              | Supports genetic improvement of dairy cattle through the establishment of pedigree and performance recording schemes, rehabilitation and support for the artificial insemination service, the provision of expert advice in animal feeding, provision of training for stakeholders and development of draft breeding strategies.   | Mongolia                         |
| TCP/NEP/3105   | 2     | FAO              |  | Nepal                            |
| TCP/MYN/3201   | 2     | FAO              |  | Myanmar                          |
| Agricultural biodiversity Programme in Laos  | 1,2,4 | FAO/Neth         | Development of local goat production and change of   | Lao People's Democratic Republic |

|   |   |                               |  |   |
|---|---|-------------------------------|--|---|
|   |   | erlands Partnership Programme | regulations related to environmental impact assessment to include agrobiodiversity   |   |
| AGE/ILRI “Gene-based Technologies in Livestock Breeding: Characterization of Small Ruminant Genetic Resources in Asia”.         | 1 | AGE                           | Undertakes phenotypic and genetic characterization of nearly 100 sheep and goat breeds in eight Asian and Near East countries. Provides equipment and training for participating scientists. | Bangladesh, China, Indonesia, Iran (Islamic Republic of), Pakistan, Saudi Arabia, Sri Lanka Viet Nam  |
| AGE is supporting National Technical Cooperation projects involving characterization of animal genetic resources in 5 countries | 1 | AGE                           | Undertakes capacity-building in molecular and phenotypic characterization  | Burkina Faso, Morocco, Peru, Sri Lanka Zambia   |
| Farm Animal Biodiversity Information System Network (FABISnet)  | 1 | EU                            | Supports establishment of national information systems   | Austria, Cyprus, Estonia, Georgia, Iceland, Italy, Netherlands, Poland, Slovakia, Slovenia, Switzerland, United Kingdom   |
| 2010 Biodiversity Indicators Partnership project  | 1 | GEF                           | Develops guidelines for surveying and monitoring, and tools and methodology for developing and testing the CBD headline indicator “trends in genetic diversity                               |   |
| Regional Technical Cooperation project on cattle breeding in Asia.  | 2 | AGE                           | Provides technical support for the establishment and management of animal genetic resources, with an emphasis on the sustainable utilization of local breeds.                                | Bangladesh, China, India, Indonesia, Malaysia, Mongolia, Myanmar, Pakistan, Republic of Korea, Sri Lanka, Philippines, Thailand Viet Nam  |
| Regional Technical Cooperation project on cattle breeding in Africa.  | 2 | AGE                           |  | Algeria, Burkina Faso, Botswana, Central African Republic, Cameroon, Congo, Egypt, Ghana, Kenya, Libyan Arab Jamahiriya, Madagascar, Mali, Mauritius, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Tunisia Uganda, United Republic of Tanzania, Zimbabwe |

## Annex 6: Publications

### FAO documents

**FAO.** *AGRI (Animal Genetic Resources Information)* Tri-lingual (English/French/Spanish) journal volumes 40–43, with two special issues (volume 41 and 42) produced to support the Interlaken Conference.

**FAO.** *AGRI (Animal Genetic Resources Information)* – volumes 1–41 on CD-ROM.

**FAO.** 2007. *The State of the World's Animal Genetic Resources for Food and Agriculture*, edited by B. Rischkowsky, B. & D. Pilling, Rome (available at <http://www.fao.org/docrep/010/a1250e/a1250e00.htm>). Chinese and English (French and Arabic in preparation).

**FAO.** 2007. *The State of the World's Animal Genetic Resources for Food and Agriculture* – in brief, edited by D. Pilling, & B. Rischkowsky. Rome (available at <http://www.fao.org/docrep/010/a1260e/a1260e00.htm>). Arabic, Chinese, English, French, Russian and Spanish (German, Japanese and Polish under co-publishing agreements).

**FAO.** 2007. *The State of the World's Animal Genetic Resources for Food and Agriculture*: brochure. Rome (available at <ftp://ftp.fao.org/docrep/fao/010/ai771e/ai771e00.pdf>). Arabic, Chinese, English, French, Russian and Spanish.

**FAO.** 2007. *People and animals – traditional livestock keepers: guardians of domestic animal diversity*, edited by K.A. Tempelman & R.A Cardellino. Rome. (available at <ftp://ftp.fao.org/docrep/fao/010/a1057e/a1057e.pdf>).

**FAO.** 2007. *Global Plan of Action for Animal Genetic Resources and the Interlaken Declaration*. Rome. (available at <http://www.fao.org/docrep/010/a1404e/a1404e00.htm>). Arabic, Chinese, English, French, Russian and Spanish (German and Polish under co-publishing agreement).

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**FAO.** 2007. *Animal genetic resources around the world – promoting diversity*. (DVD)

**FAO.** 2007 *Marker-assisted selection: current status and future perspectives in crops, livestock, forestry and fish*, edited by E.P. Guimarães, J. Ruane, B.D. Scherf, A.R. Sonnino, & J.D. Dargie. Rome

**FAO.** 2008. *Agriculture for Animal Diversity for Agriculture*, brochure with fact sheets in English, French and Spanish (available at <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,411>).

**FAO.** 2008. Poster: *Livestock and climate change*, prepared for the High level Conference on World Food Security: The Challenges of Climate Change and Bioenergy, Rome, June 2008

**FAO.** 2008. Set of 6 posters for SBSTTA exhibition (in English)

**FAO.** 2008. Set of 3 posters in English, French and Spanish

- *The State of the World's Animal Genetic Resources for Food and Agriculture – the first global assessment* (available at <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,571> / <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,572> / <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,573>).
- *The Global Plan of Action for Animal Genetic Resources* (available at <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,574> / <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,575> / <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,576>).

- *Domestic Animal Diversity Information System – a clearing house mechanism* (available at <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,577> / <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,578> / <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,579>).

**FAO/WAAP.** 2008. *Report of the FAO/WAAP Expert Meeting on Sustainable Utilization of Animal Genetic Resources, held Ferentillo, Italy, 2–4 July 2006*, edited by D. Weary, D. Pilling & B. Rischkowsky. Rome. (available at <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,297>).

**FAO/WAAP.** 2008. *Report of the FAO/WAAP Workshop on Production Environment Descriptors for Animal Genetic Resources, held Caprarola, Italy, 6–8 May 2008*, edited by D. Pilling, B. Rischkowsky & B. Scherf. Rome. (available at <http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,593>).

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