

March 1998



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Organisation  
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pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

## Items 3 and 5 of the Provisional Agenda

### COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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

First Session

Rome, 8-10 September 1998

#### REPORT OF THE PANEL OF EXPERTS ON THE DEVELOPMENT OF THE GLOBAL STRATEGY FOR THE MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES Second Session, Rome, 23-25 March 1998

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## **REPORT OF THE INFORMAL PANEL OF EXPERTS ON THE DEVELOPMENT OF THE GLOBAL STRATEGY FOR THE MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES**

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### **I. INTRODUCTION**

1. The governing bodies of FAO identified as a priority activity the development of the Global Strategy for the Management of Farm Animal Genetic Resources (Global Strategy). FAO is responsible for leading, coordinating, facilitating and reporting globally on the further development of the Global Strategy, and is well positioned to assist countries, providing technical guidance, supporting capacity-building, and in facilitating the discussion and debate of policy issues.

2. The Global Strategy is attracting increasing international attention and recognition. During the 1996 World Food Summit, a Plan of Action was negotiated, which included a commitment to conserve and sustainably use Farm Animal Genetic Resources, recognizing the contribution of these essential resources to food security. The November 1996 Decision III/11 by the Conference of Parties to the Convention on Biological Diversity (CBD) strongly supported the development of the Global Strategy and recognized FAO's lead role in this.

3. While broad recognition of the need for the Global Strategy has been established, understanding, and cost-effectively using and developing in a sustainable manner the breeds of livestock which comprise these farm animal genetic resources, will be demanding on countries, and some critical aspects are beyond the capacity of individual countries. Technical and policy capacity must be increased to ensure that developing countries have the capacity to effectively implement the Global Strategy to ensure the wise and sustainable use of their valuable animal genetic resources.

4. Given the technical challenges, in both breadth and depth, associated with cost-effective characterization, sustainable development and conservation of farm animal genetic resources, FAO has established access to the best available expertise in the field of animal genetic resources. This is essential to assist it to build a sound technical and policy foundation for the proper management of irreplaceable animal genetic resources. The Informal Panel of Experts on the Development of the Global Strategy for the Management of Animal Genetic Resources, is viewed by FAO, as one of the necessary mechanisms for assisting further development and implementation of the Global Strategy.

5. The Panel first met in May 1996, and adopted the following terms of reference.

**The Panel will:**

- Evaluate the components and elements of the Global Strategy.
- Evaluate progress in the implementation of the Global Strategy and consider options for its further development.
- Regularly consider the operational effectiveness of the Global Strategy.
- Advise FAO on the further development of the Global Strategy.
- Arrange and conduct its programme of work as agreed by the Director of the Animal Production and Health Division, to effect these terms of reference.

**Opening of the Session**

6. Mr. Sawadogo, Officer-in-Charge, Animal Production and Health Division, presented a formal written opening address to the Panel at the beginning of this second session, which is

attached as *Appendix 3*. Mr. J. Phelan, Chief of the Animal Production Service, provided the opening address, challenging the Panel to:

- Focus their deliberations and recommendations on ways and means to enhance the sustainable use and development of farm animal genetic resources, expressing the view that conservation and sustainable utilization were complementary;
- Provide sound advice on getting activities underway to enhance use and development of farm animal genetic resources;
- Provide realistic advice with priorities, given the current relatively low-level of funding available and the need for extra-budgetary resources to implement the Global Strategy; and
- Assist FAO to identify sources of funding needed to implement the Global Strategy.

## **II. OVERALL ASSESSMENT**

7. The Panel was impressed with the efforts that had been undertaken over the past two years to further develop and implement the Global Strategy. At the Global Focal Point, the Panel was particularly impressed with the development of several key Secondary Guidelines for assisting countries to develop action plans, and the finalization of the Primary Guidelines document. Panel members emphasized the importance of the Domestic Animal Diversity-Information System (DAD-IS) and were pleased that this essential element of the Global Strategy was already being widely used and is under further development, which will enhance its usefulness, particularly to countries, and its capability.

8. Panel members were pleased to see that the development of the intergovernmental mechanism was advancing rapidly and hoped that this would lead to increased financial support for the Global Strategy. The Panel acknowledged the important linkage that had developed between the Animal Genetic Resources Group and the Secretariat of the Commission on Genetic Resources for Food and Agriculture. This high level of collaboration is essential for the effective preparation of the first session of the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture.

9. The Panel was very impressed with the progress that had been made with countries identifying National Technical Focal Points and Regional Focal Points for Animal Genetic Resources Management, but was extremely concerned about the potential loss of the Asia Regional Focal Point because of a lack of funding. The Panel noted that the preparation of 11 Asian country Action Plans and the Asian Programme Document were major accomplishments. To capitalize on this very positive beginning and the need to further develop and implement the Global Strategy in Asia, the Panel stressed the need for further funding.

10. The Panel expressed concern that financial resources had not been secured to implement the Measurement of Domestic Animal Diversity project, known as MoDAD. The Panel placed high priority on this project during its first session, as it would provide a solid foundation for much of the work required to effectively plan and implement the Global Strategy. They also reaffirmed the need for global coordination to implement this project, and emphasized that this must be provided by FAO. The Panel hoped that resources would be found very soon for project MoDAD, perhaps as part of a larger project to report on the state of farm animal genetic resources.

### **Acknowledgement**

11. The Panel acknowledged that FAO staff had accomplished a great deal over the past two years and that the products of their work were of high quality, and urgently needed to improve the management of farm animal genetic resources. The Panel expressed their appreciation to the

Secretariat for preparing for and conducting its second session, and acknowledged the important contribution made by staff from the Commission's Secretariat and the Animal Production and Health Division.

### III. PRIORITY ACTIVITIES

12. Panel members have identified eight key priority areas for FAO to consider in the future development and implementation of the Global Strategy. The recommendations provide a solid foundation for FAO to plan the future development and implementation of the Global Strategy. They emphasize the sustainable use and development of farm animal genetic resources, which all Panel members accept as the primary objective of the Global Strategy.

13. In providing recommendations to FAO, the Panel notes that current funding for the Global Strategy, provided through the regular programme budget, is for strategy development and planning. Funding levels are not currently sufficient to implement all elements of the Global Strategy nor sufficient to fully support all Global Focal Point activities. Most of the eight priority activities identified depend on achieving extra-budgetary funding.

#### **The Panel Recommends:**

- a. Securing funding for the Asia Regional Programme to build on the current success, using this programme to demonstrate to countries and donors the role and value of farm animal genetic resources, and the need for country leadership and regional coordination.
- b. Enhancing efforts to establish and maintain all Regional Focal Points, with high priority given to Africa. Regional organizational structures are essential to assist countries to plan the implementation of components of the Global Strategy; coordinate training and research; facilitate policy development; and plan and implement regional projects.
- c. Significantly increasing global capacity to identify the diversity and uniqueness of farm animal genetic resources in order to provide a solid foundation to further plan and implement the Global Strategy. A key component of this is project MoDAD – the Measurement of Domestic Animal Diversity, which should be implemented as a high priority. Ultimately, a Report on the *State of The World's Animal Genetic Resources for Food and Agriculture*, should be prepared to provide a comprehensive overall picture.
- d. Continuing the distribution of the Primary Guidelines and the Secondary Guidelines for the Management of Small Populations at Risk, as a high priority, in order to provide countries with the guidance they need to plan and implement the Global Strategy. Additional planned Secondary Guidelines for Surveying and other aspects of Characterization, and for Sustainable Development of Animal Genetic Resources in Medium- to Low-input Production Systems should be developed and distributed as rapidly as financial resources allow.
- e. Continuing the development of the Domestic Animal Diversity Information System (DAD-IS) as an essential element of the Global Strategy. The breeds database as a component of DAD-IS should be further developed on a high priority basis, including incorporating capacity to record environmental parameters that affect production, productivity and survival. In addition, DAD-IS should also be made available in Arabic and Chinese, and the Action Planner should be completed to assist countries to coordinate, monitor and report on their animal genetic resources management activities.
- f. Enhancing the overall communication effort by better targeting audiences for communications, especially donor countries and organizations, as has been done in the development of DAD-IS. High priority should be given to the preparation of a FAO publication that would describe the Global Strategy and the roles and values of farm animal genetic resources.

- g. Ensuring the effective preparation of the first meeting of the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture. The intergovernmental mechanism is an essential step to achieving the necessary global commitment and financial resources to further develop and implement the Global Strategy.
- h. Building on success stories to enhance understanding of the importance of farm animal genetic resources to food security and rural development. Demonstration projects are recommended in all regions where possible, to encourage country and farmer participation in Global Strategy activities.

#### **IV. TECHNICAL ACTIVITIES CONSIDERED**

##### **Primary and Secondary Guidelines**

14. The Panel reviewed the Primary Guidelines document and some draft Secondary Guidelines as well as several reports, which could be developed into Secondary Guidelines. The list of technical documents reviewed include: Primary Guidelines Document for *Development of National Farm Animal Genetic Resources Management Plans*; Draft Guidelines for the *Management of Small Populations of Farm Animal Genetic Resources at Risk*; a draft workshop report entitled *New Developments in Biotechnology and Their Implications for the Conservation of Farm Animal Genetic Resources 1: Reversible DNA Quiescence and Somatic Cloning*; a workshop report entitled *Characterization of Livestock Production Environments and its Annex: Preliminary Draft Guidelines to Describe Primary Production Environments for Each Breed of Domestic Farm Animal*; Global Project For the Measurement of Domestic Animal Genetic Diversity (MoDAD) - *Draft Project Formulation Report* and *Microsatellite Markers for the Analysis of Genetic Distances in Domestic Animal Species*; and *Draft Animal Recording For Breed Improvement in Low-input to Medium-input Production Systems*.

15. At its first session, the Panel stressed the importance of the need to develop and use comprehensive technical guidelines to advance the Global Strategy (Recommendation 12 p.5). At its second session, the Panel acknowledged the impressive progress that the Secretariat had made in revising and distributing the Primary Guidelines document and in drafting some Secondary Guidelines. The Panel provided recommendations for advancing the use and development of the guidelines in the following sections:

##### **Primary Guidelines for Development of National Farm Animal Genetic Resources Management Plans**

16. The Panel was pleased that the Primary Guidelines document had been widely distributed and was beginning to be used. Panel members expressed the view that the document would be most useful to National Coordinators and technical personnel. The Panel realized that the main purpose of the Primary Guidelines was to assist countries to get started in developing farm animal genetic resource management plans in response to the Global Strategy, and that it was well suited for this purpose. The Panel also acknowledged that the Primary Guidelines document needed to be supported with more technical Secondary Guidelines, and that preparation of a short *Policy-makers' Guide to the Primary Guidelines* document should be considered. Panel members agreed to provide additional suggestions to improve the Primary Guidelines to the Secretariat by April 30, 1998.

##### **The Panel:**

- Recommended that the Primary Guidelines be published as soon as financial resources became available to increase the profile and status of the document. Panel members felt that establishing the guidelines as an official FAO publication would promote the use of the guidelines as it would provide the appearance of a finished product, rather than a work-in-progress document.

- Recommended continued widespread distribution of the Primary Guidelines through DAD-IS and other means, and indicated the need to obtain suggestions for improving the guidelines based on the experience of users of the guidelines.
- Recognized that the Primary Guidelines document was too long and detailed to be used by senior policy-makers, and therefore recommended that FAO consider developing a *Policy-makers' Guide to the Primary Guidelines*, if financial resources were available, and with consideration of other communication priorities.
- Recommended that FAO consider linking the Primary Guidelines document with other related FAO guidelines and activities in order to present to countries a holistic animal genetic resources and livestock production system approach.
- Recommended that as experience is gained with the use of the Primary Guidelines, case studies be incorporated into subsequent versions of the Primary Guidelines.
- Endorsed the overall process for developing guidelines prepared by the Secretariat as a framework for both developing and evaluating guidelines. The process was presented in AGA-707/98/5 *Guidelines For Action Planning – Introduction*.

### **Draft Guidelines for the Management of Small Populations Of Farm Animal Genetic Resources at Risk**

17. The Panel reviewed draft guidelines for the *Management of Small Populations of Farm Animal Genetic Resources at Risk*, which is one of the key Secondary Guidelines documents. The draft guidelines examine specific aspects, options, and techniques necessary to manage populations of farm animal genetic resources that are at risk of being lost. Panel members agreed to provide detailed comments on the draft guidelines to the Secretariat by April 20, 1998, so that the Secretariat could begin to distribute these draft secondary guidelines for review and use by countries.

#### **The Panel:**

- Acknowledged that technically complex guidelines, such as the draft Guidelines for the *Management of Small Populations of Farm Animals at Risk*, were necessary to advance the Global Strategy. However, such guidelines would challenge the technical capacity of many countries, and therefore, FAO must provide training and technical support to ensure effective use of the Secondary Guidelines.
- Recommended widespread distribution of the Secondary Guidelines using DAD-IS and other means as soon as possible, while recognizing that in order to effectively use such products, these Secondary Guidelines need to be targeted to specific audiences to ensure that individuals with high levels of knowledge and experience receive them.
- Recommended the translation and publishing of all the guidelines as resources became available.

### **New Developments in Biotechnology and Their Implications for the Conservation of Farm Animal Genetic Resources 1: Reversible DNA Quiescence and Somatic Cloning**

18. The Panel was pleased to receive a draft report of a workshop that was held in November 1997 in Rome, Italy, to examine the potential role reversible DNA quiescence and somatic cloning could play in assisting efforts to conserve domestic breeds of livestock that were in danger of extinction.

19. Workshop participants concluded that the newly demonstrated feasibility of DNA quiescence and somatic cloning had the potential to assist conservation efforts and help to overcome inbreeding, which is often a concern in small animal populations. The re-establishment process (enabled by the reversibility of DNA quiescence, and utilizing cloning) has so far only been shown in one somatic cell type and one species. An important conclusion from the

workshop was that while the technology was still highly experimental, collection of tissues from highly endangered breeds should occur now. The most practical tissue to collect is skin tissue, which can be collected rapidly, requires little technical equipment, is without health risks to animals, and can be preserved using known cryo-preservation techniques. The technique is not seen as a replacement for storage and use of semen and embryos, or a substitute for live animal conservation. These methods should be employed where feasible.

**The Panel:**

- Acknowledged the potential role reversible DNA quiescence and somatic cloning could have in assisting and complementing existing conservation methods for breeds at risk, recommended that FAO widely distribute the draft paper to enhance awareness of this potential role and to generate further discussion and work on the topic.
- Recommended the collection and storage of skin tissue or other cells for breeds that are at high risk of extinction, stressing that this should not replace the collection and storage of semen and/or embryos, or live animal conservation, where these methods are feasible.
- Recommended that FAO encourage further research in the specific areas identified at the workshop to determine the role reversible DNA quiescence and somatic cloning could play in conserving domestic animal diversity.

**Characterization of Production Environments in which Animal Genetic Resources Develop**

20. The Panel reviewed the results of a workshop that was held to advance development of guidelines for the characterization of livestock production environments. The workshop results were available in a graphic format and as draft Secondary Guidelines entitled *Draft Guidelines to Describe Primary Production Environments for each Breed of Domestic Farm Animals*.

21. The Secretariat advised the Panel that the original intention was to include these draft Secondary Guidelines in Stage 2 of DAD-IS, however this was not possible due to financial and time constraints. Instead, these draft guidelines will be field-tested before widespread distribution.

**The Panel:**

- Acknowledged the importance of incorporating livestock production environment data and information into the breeds database, and recommended that FAO further develop these Secondary Guidelines integrating them into DAD-IS as a high priority.
- Supported the decision to field test the guidelines before widespread distribution.
- Recommended that livestock production environmental data and information be collected and shared using paper worksheets and computer discs, until resources become available to further develop DAD-IS.
- Encouraged greater communication and integration of activities underway among the various units of the Animal Production and Health Division, especially with regard to the further development of guidelines for the Characterization of Livestock Production Environments.

**Global Project for the Measurement of Domestic Animal Genetic Diversity (MoDAD)**

22. The Panel was provided with an update by the Secretariat (AGA 707/98/5 ATTACHMENT: VI-A) on efforts to quantify the genetic diversity amongst breeds of the 14



major species of domestic animals throughout the world. The project has been called MoDAD and is the only realistic option for establishing baseline data that is necessary to effectively identify, conserve and use unique animal genetic resources for food and agriculture. MoDAD was designed by a Working Group of international experts and requires blood samples of at least 50 breeds per species; DNA storage; laboratory assaying; data collection, collation, maintenance and analysis; and reporting on the results. An Advisory Group of the International Society of Animal Genetics compiled a list of microsatellites for analysis of the genetic distances within each domestic animal species to assist FAO plan project MoDAD. Their results were presented to the Panel (AGA/707/98/5 Attachment VI-B).

23. Genetic distancing activities are being undertaken independently in several locations around the world. However, to be effective, MoDAD must be implemented in a coordinated manner. FAO is well positioned to act as the coordinating body. Project MoDAD was originally estimated to cost US \$ 10.53 million in total, and could have been completed in four years. The Panel was advised that FAO had not been able to secure the financial resources to coordinate implementation of project MoDAD.

#### **The Panel:**

- Expressed its disappointment that funding had not been secured to initiate MoDAD as the Panel had at its first meeting identified this project as a high priority (Recommendation 3, page 7), and again recommended that FAO seek funding for project MoDAD.
- Recommended that MoDAD be undertaken as part of an overall effort to determine the state of animal genetic resources for food and agriculture.
- Recommended that FAO continue developing and widely distributing guidelines for undertaking genetic distancing studies to help to standardize and coordinate global genetic distancing research for the domestic livestock species.
- Expressed concern that many scientists were engaged in genetic distancing projects but were not aware of the list of microsatellite markers that had been compiled by an Advisory Group, and that uncoordinated research in this field would significantly reduce the usefulness of the data currently being collected.
- Recommended that FAO enhance awareness of the existence of the microsatellite markers for several of the major species (including publishing them in a recognized journal such as *Animal Genetics*), and communicate the benefits of coordinating genetic distancing research.
- Recommended the continued distribution of the 1993 FAO report, which provided the basis for project MoDAD.

#### **Draft Animal Recording For Breed Improvement in Low-input to Medium-input Production Systems**

24. The Panel received a draft report on animal recording. The Secretariat advised the Panel that the draft report was a work-in-progress report, and therefore was not reviewed in detail. The Secretariat stated that the intent is to continue to develop the draft report and distribute it as a Secondary Guidelines document, which would be aimed at improving animal recording in low-input to medium-input production systems, that are common in the developing world.

**The Panel:**

- Acknowledged the importance of animal recording to speed genetic development of adapted livestock breeds, and the important need to develop guidelines for cost-effective recording of animal performance, especially in low-input to medium-input production systems; and encouraged further development of the draft report and release of the Secondary Guidelines as soon as possible.
- The Panel recommended that, if possible, case studies of performance recording in low-input and medium-input production systems be developed and eventually included in the Secondary Guidelines.

**Further development of the Domestic Animal Diversity Information System (DAD-IS)**

25. FAO has developed a leading edge data and information management system, DAD-IS, that is a key element of the Global Strategy. The system not only acts as an effective communications tool; it provides a means for countries to securely store their breed data and information. DAD-IS Stage 1, was maintained in a semi-production mode at a low level on the Internet, but was not available on CD-ROM.

26. The Secretariat advised the Panel that there were currently more than 1200 individuals or organizations using DAD-IS, in more than 90 countries, with approximately 15 new subscribers added each month.

27. The Panel was provided with the specifications for Stage 2 of DAD-IS (AGA/707/98/7 Attachment I). The future development of DAD-IS is intended to advance the system so that it can become a means to provide training modules, act as a virtual library, list cadres of experts and means to contact them, and provide essential references, in addition to its current functions. DAD-IS will be available both off-line and through the Internet to facilitate communication, which will increase awareness and understanding of the need for the Global Strategy. Stage 2 will be available in multi-language versions (English, French and Spanish and with some demonstrations in Arabic), which will increase global communication effectiveness. The Panel was advised that Stage 2 is currently on schedule and will be beta-tested in April 1998, and released in June 1998.

28. The Panel also received a plan for Stage 3 and Stage 4 development of DAD-IS (AGA-707/98/7 Attachment II).

**The Panel:**

- Reaffirmed the high priority they had placed on the development and maintenance of DAD-IS at their first meeting (Recommendation 2, page 7), and commended FAO for the excellent effort they had undertaken to further develop DAD-IS.
- Expressed concern that FAO does not have sufficient resources to adequately maintain DAD-IS and respond to country requests for assistance in establishing and using DAD-IS. This is a major concern as the demand on FAO staff will increase in future as use of DAD-IS increases as Stage 2 comes online, and as the number of users continues to increase.
- Recommended that FAO find means to continue to support the DAD-IS Software Engineer position that has been provided by the Government of France, but will expire in October of 1998.

- Recommended that during the further development of DAD-IS, high priority be given to both developing the breeds database and integrating production environment parameters with breed data and information.
- Recommended that FAO develop an effective mechanism to obtain client feedback on DAD-IS, in order to ensure that future development of DAD-IS is based on client needs and priorities.
- Accepted the list of priorities for Stage 3 of DAD-IS as provided by the Secretariat, with a provision that client needs and priorities be accounted for.
- Noted that capacity-building in many countries would be required in order for them to fully realize the potential benefits of DAD-IS, and recommended that FAO prepare a project proposal for support from the Global Environment Facility.

### **Communications Strategy for the Initiative for Animal Diversity**

29. The Panel received a document entitled *Communications Strategy for the Initiative for Domestic Animal Diversity* (AGA/707/98/6) and an evaluation of the Communications Strategy entitled *Communications Strategy for the Initiative for Domestic Animal Diversity: An Evaluation* (AGA/707/98/6 Attachment I).

30. The Panel welcomed both the Communications Strategy and the evaluation of the Strategy, noting that they had made requests for these at their first session (Recommendation 9, page 8). The Panel had also recommended that a communication expert be added to the Panel, and welcomed to the Panel Mr. Paul J.H. Neate, Head of Publications, International Livestock Research Institute.

### **The Panel:**

- Reaffirmed the importance they placed on effective communications to the success of the Global Strategy and commended the Secretariat for producing the Communications Strategy and for undertaking an evaluation of the Communications Strategy.
- Advised the Secretariat to consider all recommendations contained in the Evaluation Report in the further development of the Global Strategy, especially the need for greater precision in identifying target audiences.
- Emphasized the need to develop messages for specific audiences, balancing the need to communicate with scientific and technical people and with non-experts and policy-makers, to keep them interested and informed of the Global Strategy.
- Cautioned against over reliance on the Internet as a communications means, but agreed that this medium was extremely effective if the audience is clearly identified and has access to the Internet.
- Recommended that FAO produce a publication that describes the Global Strategy and use this publication to enhance awareness of the need for the Strategy; and increase awareness of the roles and values of farm animal genetic resources by providing examples of the many uses of these resources throughout the publication.
- Recommended more regular and frequent communication with donors and stakeholders using existing means including the Animal Genetic Resources Information Bulletin, newsletters, meetings, conferences, fact sheets, CD-ROMs and the Internet.

## Progress Reports

31. Headquarter and regional FAO animal genetic resources staff provided the Panel with a brief overview of some important experiences in developing and implementing the Global Strategy over the past two years. This included providing the Panel with recommendations developed from special courses, workshops, symposia, conferences, and intergovernmental sessions conducted globally and at the regional level.

32. Some of the key messages that the Panel heard included:

- The further development of the Global Strategy and its implementation depend on extra-budgetary funding, which was not secured at the levels expected. As a result, implementation of the Strategy is behind schedule, and increased country and donor agency awareness of the important roles and values of farm animal genetic resources is required to increase financial support for the Global Strategy.
- Successful implementation of the Global Strategy will only result if there is country, regional and global support. A top-down global approach will fail, whereas a bottom-up capacity-building approach has a very high probability of achieving long-term success.
- The Global Strategy had been discussed at several important international meetings including a Donors and Stakeholders' Meeting, the World Food Summit and the third Conference of the Parties to the Convention on Biological Diversity. These discussions have established a foundation for future intergovernmental discussions, which are essential to achieve the global commitment and financial resources that are necessary to implement fully the Global Strategy.
- Country participation in the Global Strategy is increasing rapidly as National Focal Points become established or are in the process of being established, now with 37 in Europe (established), 12 in Asia (established), 11 in the Americas (being established), 11 in the Near East (in process), 12 in the SADC region (in process), 14 in West Africa (in process), and 12 in East Africa (in process).
- Regional coordination is absolutely essential to facilitate communications, effectively undertake training, establish regional priorities, and discuss key policy issues. The nature of the regional focal point will likely vary from region to region, however opportunities to establish Regional Focal Points within existing institutions should be given a high priority.
- The Asian project has demonstrated that progress can occur relatively rapidly. For example, first drafts of Management Plans for Animal Genetic Resources have been produced for 11 Asian countries, and awareness of animal genetic resources issues has increased significantly.
- That it is difficult to find the right balance between funding field activities that may lead to immediate benefits versus getting the strategic framework in place to ensure the most effective use of scarce human and financial resources.

33. The Panel was extremely impressed with the results achieved over the past two years and concluded that the many experiences would help shape the future of the Global Strategy, and focus activities.

**The Panel:**

- Acknowledged the importance of increasing donor country and agency participation in activities related to the Global Strategy, and expressed great concern that the Asia Project, which is now beginning to pay huge dividends, does not have financial support beyond September of 1998. The Panel expressed the view that governments, especially the Government of Japan, should be encouraged to support the Asia Project at this crucial phase.
- Acknowledged the importance of establishing an effective intergovernmental mechanism for farm animal genetic resources and pledged their support to assist the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture.
- Recommended that regional pilot projects be undertaken to demonstrate the need to effectively use and develop genetic resources, and to conserve those resources at immediate risk. The Panel realizes that this requires a careful balance in the use of scarce resources, but felt that demonstration projects would help to increase overall support for the Global Strategy.
- Recommended continued efforts to build strong Regional Focal Points, which the Panel viewed as essential to the successful implementation of the Global Strategy.
- Expressed their appreciation for being informed about progress in the Regions and suggested that in future Regional progress reports be key elements of Panel sessions.

**Definitions**

34. The Panel spent considerable time and effort to examine and further develop key definitions that were provided by the Secretariat. This work was not concluded.

35. Common understanding of particular terms is important to effective communication. For example, the term conservation includes use of resources for some individuals, whereas, it mean preservation or non-use for others. This particular example has resulted in misunderstanding in the past and illustrates the need to establish a common understanding of such key terms.

36. Panel members agreed to continue to work with the Secretariat in developing the definitions that are considered to be most important to conveying the key concepts contained in the Global Strategy.

**V. EVALUATING PROGRESS IN THE FURTHER DEVELOPMENT AND IMPLEMENTATION OF THE GLOBAL STRATEGY**

37. The terms of reference provided to the Panel require the Panel to evaluate the components and elements of the Global Strategy and review progress in its implementation. Evaluating progress requires the establishment of parameters on which to base the evaluation. The Secretariat provided to the Panel for their consideration a draft framework for measuring progress (AGA-707/98/3). The Panel further developed the draft to establish a framework that provides criteria and indicators that they will use as a basis for evaluating progress.

**The Panel:**

- Recommended using the draft framework (*Appendix 2*) as a basis for evaluating the Global Strategy, with the intent to finalize the framework and use it to assess progress at the Panel's next session.

- Agreed to forward a copy of the draft framework for evaluating the Global Strategy to the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture for their consideration, as an Annex to the Panel's Report.

## VI. STATE OF FARM ANIMAL GENETIC RESOURCES

38. The Panel discussed the need for preparing a *Report on the State of the World's Animal Genetic Resources for Food and Agriculture*, as part of future efforts to plan and implement the Global Strategy. Such a report would provide a sound basis to develop and sustainably use genetic resources, identify unique genetic resources and help to focus conservation efforts. Preparation of the report would also help to increase within-country animal genetic resources management capacity.

39. Panel members also noted that preparation of such a report would provide an opportunity to describe the relationship of domestic animals with the environment and their agro-ecosystems, and improve efforts to report on global biodiversity.

40. Panel members were informed that the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture would be examining the need for undertaking a *Report on the State of the World's Animal Genetic Resources* at their first meeting in September, 1998, and were expected to recommend to the Commission on Genetic Resources for Food and Agriculture on the need for the *Report on the State of the World's Animal Genetic Resources*. Panel members believed that support from the Working Group and approval by the Commission are essential to ensure the participation of countries, and to secure the financial resources that are required to undertake its preparation.

### The Panel:

- Strongly endorsed the preparation of a *Report on the State of the World's Animal Genetic Resources for Food and Agriculture*, which would require breed surveys, characterization, genetic distancing studies, and other activities, that would provide a basis to set management priorities, and would increase awareness of the roles and values of farm animal genetic resources.
- Recommended that the process for developing a *Report on the State of the World's Animal Genetic Resources for Food and Agriculture*, be open and transparent, and result in increased management capacity in all participating countries, especially developing countries.
- Committed itself to assisting, on request, the Intergovernmental Technical Working Group on Animal Genetic Resources and the Commission on Genetic Resources for Food and Agriculture, in the preparation of *the Report on the State of the World's Animal Genetic Resources*.

## VII. WORK PLANS AND FUNDING

41. The Secretariat presented to the Panel detailed work plans and funding requirements for the period 1998-2001, for essential core work required at the Global Focus to develop the Global Strategy. Approximately, 50% of essential core activities will be funded through the Regular Programme Budget, with the other half being dependent on extra-budgetary sources. The Secretariat informed the Panel that progress in developing some components of the Global Strategy would be delayed, as extra-budgetary financial resources had not been secured. The Panel was also advised that regional or field activities were dependent on extra-budgetary resources, and that financial resources had not been secured to continue the Asian Programme for Farm Animal Genetic Resources, past October 1998. On the positive side, the United Nations

Development Programme (UNDP) agreed to provide financial resources for the SADC region of Africa, and funding had been secured from several donor Countries and Organizations to assist with specific aspects of the Global Strategy.

**The Panel:**

- Acknowledged that current funding was intended primarily for strategy and planning activities and was not adequate to achieve successful implementation of the Global Strategy, and that funding for implementation could only be achieved from Country commitments to adopt and implement the Global Strategy. The Panel emphasized the importance of the first meeting of the Intergovernmental Technical Working Group on Animal Genetic Resources and the need for the Commission on Genetic Resources for Food and Agriculture to endorse the Global Strategy and begin to find ways to adequately fund implementation.
- Accepted that essential core activities at the Global Focal Point and Regional activities were dependent on extra-budgetary sources, and agreed that evaluating future progress in the development and implementation of the Global Strategy would need to take into account the flow of financial resources.
- Expressed great concern for the potential loss of the Asian Animal Genetic Resources Programme, given the importance of this region as a storehouse for nearly one-third of the world's animal genetic resources, and the fact that the region has a very large and growing human population. The project also provides a model to base expansion of the Global Strategy on, and loss of this region could affect overall credibility of the Global Strategy effort.
- Acknowledged that the Animal Genetic Resources Group of FAO had accomplished a great deal over the past two years with relatively scarce financial resources, and commended them and FAO for their achievements to date.

### VIII. PANEL *MODUS OPERANDI*

42. The Panel reviewed its *Modus Operandi* and membership.

**The Panel:**

- Welcomed a communication expert, Mr. Paul Neate, to the Panel.
- Re-elected Professor J.S.F. Barker as Chairperson.
- Agreed that Mr. R. Laing would serve as *rapporteur* for the second meeting of the Panel.
- Accepted the resignations of Professor Gottfreid Brem and Dr. Akke van der Zipp, acknowledging the valuable contributions they had both made.
- Agreed that in addition to Professor Barker and Mr. Neate, Dr. Louis Ollivier, Professor John Barton and Mr. Richard Laing would continue to serve on the Panel.
- Recommended that the Panel's next meeting take place between the Intergovernmental Technical Working Group on Animal Genetic Resources and the next meeting of the Commission on Genetic Resources for Food and Agriculture, recognizing that funds were not currently available for a Panel meeting in 1999.

*Appendix 1***PANEL MEMBERS AND OTHER PARTICIPANTS****Panel Members:**

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**FAO Staff:**

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Mr. Salah Galal, Animal Production Officer, *In Situ* Conservation

Mr. Keith Hammond, Senior Officer, Animal Genetic Resources

Ms. Martha Kassa, Animal Production Officer, Information Systems

Mr. Juhani Mäki-Hokkonen, Senior Officer, Livestock Production Systems

Mr. Joe Phelan, Chief, Animal Production Service

Mr. Stéphane Rey-Coquais, Associate Professional Officer

Mr. Abdoulaye Sawadogo, Assistant Director-General, AGD

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Mr. Jan Slingenbergh, Animal Health Officer, Integrated Health Management

Mr. Clive Stannard, Secretariat, CGRFA

Mr. Hans-Gerhard Wagner, Animal Production Officer, *Ex Situ* Conservation

*Appendix 2***A FRAMEWORK FOR EVALUATING PROGRESS IN THE FURTHER DEVELOPMENT AND IMPLEMENTATION OF THE GLOBAL STRATEGY FOR THE MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES****Introduction**

1. The meeting of the Informal Panel of Experts on the Development of the Global Strategy for the Management of Farm Animal Genetic Resources (23-25 March 1998) agreed the following framework. The Panel recommends to the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture, and to the Commission on Genetic Resources for Food and Agriculture that it be endorsed and used to measure progress in further developing and implementing the Global Strategy. It would establish a framework that allows comprehensive evaluation of the implementation of the Global Strategy over time without placing a heavy burden on the Secretariat.

**Criterion – Sustainable Use of AnGR****Indicators:**

1. Number of countries that have initiated breed characterization (Molecular/Quantitative Genetic) programmes.
2. Total number of breed characterization programmes underway.
3. Number of countries that have adopted breeding strategies to better use locally adapted animal genetic resources.
4. Number of countries that have identified and are conserving wild ancestors of domesticated farm animals.
5. Number of countries that have characterized their production environments.
6. Number of countries that are assessing their human and financial management capacity in AnGR, and identifying key gaps.
7. Number of countries that have initiated livestock resource sector assessments.
8. Number of countries that have begun to develop breed sustainable use action plans.
9. Total number of breeds, for which sustainable action plans have been prepared or are under development.
10. Number of countries that have established breed-monitoring programmes.
11. Total number of breed status reports available.
12. Number of countries implementing improved animal recording systems.
13. Total number of breeds for which breeding strategies have been implemented.
14. Case studies where conserved animal genetic resources are now contributing to food and agriculture production.

**Criterion – Global and Regional Focal Points****Indicators:**

1. Total number of staff, financial contribution and source of funds to maintain the Global Focal Point is increasing, decreasing or is stable.
2. Number of Regional Focal Points established.
3. Total staff, financial contribution and source of funds to maintain the Regional Focal Points is increasing, decreasing or is stable.
4. Total financial and other support provided from Global and Regional Focal Points to support country-based information and management structures is increasing, decreasing or is stable.
5. Total financial and other support provided from Global and Regional Focal Points to support design and implementation of action plans and management strategies is increasing, decreasing or is stable.
6. Total financial and other support provided from Global and Regional Focal Points to develop guidelines and other similar tools for use by countries is increasing, decreasing or is stable.
7. Total financial and other support provided from Global and Regional Focal Points to support development, use by countries and maintenance of DAD-IS is increasing, decreasing or is stable.
8. Total financial and other support provided from the Global and Regional Focal Points to support training programs for national coordinators and other personnel is increasing, decreasing or is stable.

**Criterion – National Focal Points****Indicators:**

1. Number of countries that have established a National Focal Point.
2. Number of countries that have established a National AnGR Advisory Committee.
3. Number of countries that have established a technical network for AnGR of all important farm animal species.
4. Number of countries that have established mechanisms to ensure stakeholder involvement in national and local AnGR plans and projects.
5. Number of countries that have developed and implemented a communication strategy for AnGR.
6. Number of countries that have initiated AnGR Action Plans.
7. Number of countries that are linked to DAD-IS.

**Criteria – Conservation of AnGR****Indicators:**

1. Number of countries that have begun to develop breed conservation action plans.
2. Number of countries that have completed breed base-line studies.
3. Number of countries that have initiated breed base-line studies.

4. Number of breeds for which complete base-line surveys exist.
5. Number of breed conservation action plans currently completed or under development.
6. Number of countries participating in the World Watch List for Domestic Animal Diversity.
7. Number of breeds designated in each category of extinct, critical and endangered.
8. Number of breeds at risk that have established monitoring programs.
9. Number of countries collecting samples of genetic material for storage at genome banks.
10. Number of regional genome banks established.
11. Number of breeds in which adequate samples of AnGR have been collected and are stored in genome banks.

**Criteria – Policy Development, Access to AnGR, and Sharing Benefits Arising from the Use of AnGR**

**Indicators:**

1. Number of countries that have established AnGR policies and policy forums.
2. Number of regions that have established regional policies for providing access to, and sharing benefits arising from, the use of AnGR.
3. Number of donor countries and agencies that have developed new or revised policies in response to AnGR issues and opportunities.

**Criteria – Communicating the Importance of AnGR**

**Indicators:**

1. Number of countries actively communicating the Global Strategy and the roles and values of AnGR.
2. Number of countries monitoring and reporting on the status of the world's AnGR.
3. Number of Donor and Stakeholder meetings convened to address the Global Strategy.
4. Number and location of conferences and seminars that addressed all or some elements of the Global Strategy.
5. Types of communications material produced and methods of distribution used to advance understanding of the Global Strategy and the roles and values of AnGR.

**Criterion – Intergovernmental Mechanisms for AnGR**

**Indicators:**

1. Number and type of international meetings convened to address AnGR.
2. Number of AnGR items considered by the Commission on Genetic Resources for Food and Agriculture.
3. Number of AnGR items considered by the CGRFA Intergovernmental Technical Working Group on AnGR for Food and Agriculture.

*Appendix 3***INFORMAL PANEL OF EXPERTS DEVELOPING THE GLOBAL STRATEGY FOR  
THE MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES**

**Second Session  
Rome, 23-25 March 1998  
Mexico Room**

**INTRODUCTION BY MR. SAWADOGO  
ASSISTANT DIRECTOR-GENERAL, AGD  
(OFFICER-IN-CHARGE, ANIMAL PRODUCTION AND HEALTH DIVISION)**

The governing bodies of FAO have identified as a priority activity the development of the Global Strategy for the Management of Farm Animal Genetic Resources. FAO will lead, co-ordinate, facilitate and report globally on the Strategy's further development. The November 1996 Decision III/11 by the governing Conference of the Parties to the Convention on Biological Diversity (CBD) also strongly supports the development of the Global Strategy and recognized FAO's lead role in this. Hence, this area of work, developing the Global Strategy, is an important part of FAO's follow-up to the United Nations Conference on Environment and Development (UNCED). A consequence is that the Strategy must provide for the three primary objectives of the CBD, *inter alia*, the conservation of biological diversity, sustainable use of biological resources and the sharing of benefits arising from the use of genetic resources.

The World Food Summit's Plan of Action negotiated by most countries also in November 1996, incorporates in its set of Commitments by signatory countries, the conservation and sustainable use of Animal Genetic Resources, recognising the contribution of these essential resources to sustainable food security.

Understanding, cost-effectively using, and developing in a sustainable manner the breeds of livestock which comprise these farm animal genetic resources, will be demanding on country technical and policy capacity, as the spectrum of management processes are complex and are currently undergoing rapid development for expanded practical use.

FAO is well positioned to lead and co-ordinate country assistance providing technical guidance and supporting capacity-building, and in facilitating the discussion and debate of policy issues. The Organization also has ready access to the best available expertise, to assist it to build a sound technical and policy foundation for the proper management of irreplaceable animal genetic resources. This Panel is a critical component of the available expertise and will assist FAO in determining needs and priorities.

To do this, the Panel accepted at its first session in May 1996 the following terms of reference:

The Panel will:

1. Evaluate the components and elements of the Global Strategy.
2. Review progress in the implementation of the Global Strategy and consider options for its further development.
3. Regularly consider the operational effectiveness of the Global Strategy.
4. Advise the responsible officers and staff on the development of the Global Strategy.

5. Arrange and conduct its programme of work, as agreed by the Director of the Animal Production and Health Division, to effect these terms of reference.

Hence, the Panel will not only review progress and assist in identifying gaps and priority activities required for the successful development of the Global Strategy, it will also contribute to detailing the technical elements involved in the Strategy.

The Panel agreed to work both in and out of session. Whilst action has been taken by the Division of Animal Production and Health to address the Panel's First Session recommendations, the Panel is also invited to consider during its second session possibilities for increased involvement of its Members in out-of-session work.

The cost-effective development of the Global Strategy requires both FAO Regular Programme funding and extra-budgetary support, in cash and in kind. In addition, in the short term and because of the need to begin to mobilize more effective field action, the development of the Strategy will provide for a small number of pilot Technical Cooperation Projects. These will be directed particularly at field testing areas of the draft technical guidelines, to further assist countries with the implementation of Animal Genetic Resources management plans, and to highlight the important place in the Strategy of the sustainable development of adapted Animal Genetic Resources. The Panel should take into consideration the implications of the flow of total support when examining the technical programme of activity.

In the intervening period since the Panel's first session and with the strong support of the FAO governing bodies, the Division of Animal Production and Health has re-configured its work programme to introduce a Livestock Systems focus. It has also altered its management procedures, forming task forces with the responsibility for the formulation and implementation of each of six sub-programmes which together comprise the Division's Programme of Work. Each task force contains a broader mix of disciplines than those involved in the daily work. The Domestic Animal Genetic Diversity sub-programme and task force form the major FAO work area associated with the development of the Global Strategy. However, the development of the specialized information system DAD-IS, a critical tool associated with the Strategy and directed at increasing country management capacity, is the responsibility of another of these task forces, which is concerned with information, policy and planning. Further, a beginning has been made to identify joint task force activities, particularly involving the three livestock systems sub-programmes, the Peri-urban, Mixed Farming and Extensive Pastoral and Grazing sub-programmes. Over time, as the normative and operational foundation for the Global Strategy goes into place, these joint activities will increasingly provide additional strength to FAO's Livestock Programme, particularly concerning the necessary sustainable intensification of the major livestock production systems of the world. Hence, those Divisional staff beyond the Animal Genetic Resources Group who form part of the two task forces directly associated with the Strategy's development are in a position to contribute to this Session of the Panel's deliberations.

The Division's task forces will also take account of the recommendations by the Panel. In addition, the work of the Panel will contribute to FAO's preparatory work for the forthcoming first session of the Intergovernmental Technical Working Group on Animal Genetic Resources.

Thank you for your commitment to participate in this Panel. I hope that your discussions are fruitful, and I look forward to your contributions.