



منظمة الأغذية
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Organización
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Unidas
para la
Agricultura
y la
Alimentación

Item 4.2 of the Draft Provisional Agenda

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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

Fourth Session

Rome, 13 – 15 December 2006

COMPENDIUM OF PRIORITIES FROM COUNTRY REPORTS

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I. INTRODUCTION

1. The Intergovernmental Technical Working Group on Animal Genetic Resources (Working Group), in its Second Session, had recommended to the Commission on Genetic Resources for Food and Agriculture (Commission) that the preparation of *Strategic Priorities for Action* would be a crucial part of the overall process for the preparation of *The State of the World's Animal Genetic Resources*.¹ In agreeing to the process for preparing *The State of the World's Animal Genetic Resources*, the Commission requested, at its Ninth Regular Session, that Country Reports be used to develop the *Strategic Priorities for Action* for its consideration.²

2. In January 2004, the Global Focal Point initiated the analysis of available Country Reports to prepare a first *Draft Report on the Strategic Priorities for Action*. At its Tenth Regular Session in 2004, the Commission considered the first *Draft Report on the Strategic Priorities for Action*³ which had been prepared on the basis of the then available 133 Country Reports. It noted that it would need to be further developed and structured to include additional inputs as additional Country Reports were received, and as reports from international organizations were submitted.⁴

3. The Global Focal Point further developed the *Strategic Priorities for Action* using all inputs that were submitted by 31 March 2005. This included 141 Country Reports and 9 reports from international organizations. The main priorities, conclusions and recommendations from Country Reports and reports of international organizations were compiled into a second draft *Report on the Strategic Priorities for Action*⁵ which provided the first comprehensive global overview of national priorities for the sustainable use, development and conservation of animal genetic resources. The second draft was used as an input for further expert reviews and regional consultations requested by the Commission. The process of conducting the regional consultations is described in detail in document *Report on regional consultations in the preparation of the Strategic Priorities for Action*⁶ and in document *Progress report on the preparation of the State of the World's Animal Genetic Resources and the Strategic Priorities for Action*.⁷ The results of the regional consultations are summarized in the document *Compendium of priorities from regional consultations*.⁸

4. Appendix 1 of the current document presents the compendium of priorities from Country Reports as they were presented in the second draft *Report on the Strategic Priorities for Action*. The document is limited to the strategic priorities and actions alone. These have been used as one of the main inputs to the *Draft Strategic Priorities for Action*⁹ presented for consideration by the Working Group at its current Fourth Session.

¹ CGRFA/WG-AnGR-2/00/REPORT

² CGRFA-09/02/REP, para 8

³ CGRFA-10/04/Inf. 9

⁴ CGRFA-10/04/REP, para 58

⁵ available at DAD-IS library at <http://www.fao.org/dad-is/>

⁶ CGRFA/WG-AnGR-4/06/Inf. 3

⁷ CGRFA/WG-AnGR-4/06/2 para. 14-22

⁸ CGRFA/WG-AnGR-4/06/Inf. 4

⁹ CGRFA/WG-AnGR-4/06/4

*Appendix 1***COMPENDIUM OF PRIORITIES FROM COUNTRY REPORTS****PRIORITY AREA I: INVENTORY, MONITORING AND CHARACTERIZATION****Goal 1: Improving the understanding of the status and characteristics of animal genetic resources to enable their sustainable use, development and conservation****National Level****Strategic Priority 1.1 Complete comprehensive national breed inventories and enhance monitoring as a basis for management decisions on AnGR****Actions**

1. Ensure that all breeds are identified and registered.
2. Strengthen breed registration systems to institutionalize and standardize data and information collection and recording to enable improved performance evaluation and standardized breed surveys.
3. Strategically enhance or establish national monitoring and reporting systems for all breeds being utilized, including those in low external input production systems, to determine trends and performance.
4. Establish and further develop national databases and information systems for animal genetic resources to support monitoring.
5. Link identification and registration to existing monitoring systems, e.g. in veterinary services.
6. Establish agreements to acquire animal genetic resource data and information currently held outside the public domain to ensure all available data and information is available to support planning.
7. Enhance awareness of policy makers regarding the need to invest in the inventory and monitoring of animal genetic resources and efficiently use financial investments to complete or update comprehensive national breed inventories.

Strategic Priority 1.2 Enhance breed characterization, including comparative breed performance analysis**Actions**

8. Enhance research into breed characterization, including specific traits, e.g. disease resistance, and comparative breed performance analysis.
9. Monitor changes in the socio-economic framework and production systems and resulting impacts on animal genetic diversity.
10. Document, maintain and respect traditional livestock knowledge as an essential component of national breed surveys.

Strategic Priority 1.3 Enhance management capacity for inventory, monitoring and characterization**Actions**

11. Establish or support breed associations to build national capacity to enable the conduct of inventories.
12. Establish training programmes for phenotypic and advanced characterization
13. Develop national standardized protocols and formats for comparative performance characterization
14. Develop improved tools for to enable improved analysis of data resulting from inventories and characterization.

International Level**Strategic Priority 1.4 Further develop collaborative arrangements to enable developing countries and countries with economies in transition to complete or update their inventories of animal genetic resources and benefit from available advanced characterization methodologies and technologies****Actions**

15. Undertake cooperative inventory and characterization activities among countries with similar breeds and/or similar productions systems to generate, analyse, and distribute data and information from characterization.
16. Provide support to establish or further develop data and information management systems for animal genetic resources in developing countries and in countries with economies in transition.
17. Mobilize international financial resources to support developing countries and countries with economies in transition to undertake their priority inventory and characterization activities.

Strategic Priority 1.5 Enhance efforts to determine the regional and global status of animal genetic resources and improve monitoring of breeds, especially those at risk**Actions**

18. Further develop evaluation criteria for breed endangerment status to assist in determining the regional and global status of animal genetic resources.
19. Undertake widespread assessments of genetic relationships among large numbers of global livestock breeds to assist in assessing the genetic uniqueness of breeds and the setting of conservation priorities.
20. Develop definite technical guidelines for molecular characterization and circulate them after thorough discussion involving existing international organizations, e.g. ISAG.
21. Establish a country-based global monitoring and early warning system for animal genetic resources and enhance emergency planning and responses for breeds at risk.
22. Further develop the global Domestic Animal Diversity – Information System (DAD-IS) to better enable the updating of data from countries and other sources, and enhance interoperability with regional data and information systems, in order to determine the regional and global status of breeds, and to share experiences in implementing *in situ* and *ex situ* conservation measures.

PRIORITY AREA II: SUSTAINABLE USE AND DEVELOPMENT OF ANIMAL GENETIC RESOURCES**Goal 2: Enhancing the use and development of animal genetic resources in all relevant production systems as part of efforts to achieve food security and alleviate poverty****National Level****Strategic Priority 2.1 Establish or enhance integrated approaches to sustainable livestock development****Actions**

23. Establish mechanisms within countries to enhance interaction among all the main stakeholders in the livestock sector, including public agencies and private sector interests, farmers, farmer organizations, research and education institutions.
24. Integrate improved husbandry strategies, especially disease control and feeding, with animal genetic resource development programmes.
25. Develop production, services and market infrastructure to enhance support for small-scale producers and local products, especially in developing countries and countries with economies in transition.
26. Maintain indigenous and local knowledge and support community-based livestock management and practices.
27. Integrate national agriculture and biodiversity programmes

Strategic Priority 2.2 Establish long-term species and breed development strategies**Actions**

28. Strategically plan the further use and development of animal genetic resources in order to meet growing demands for animal products.
29. Initiate programs for the valuation of animal genetic resources, to assist in policy development and management decisions including issues related to conservation and benefit sharing.
30. Develop strategies for financing breeding programmes for breeds for extensive systems
31. Enhance efforts to improve local breeds of livestock, where appropriate, especially within medium external input production systems.
32. Enhance or develop national breeding structures to ensure the availability of and access to improved animal genetic resources by farmers, in particular of local animal genetic resources for pure or cross-breeding programmes.
33. Assess the suitability of exotic animal genetic resources in the production systems they are intended for, prior to their wide-spread use; and where necessary, establish policies and legislation to control introduction of exotic animal genetic resources.
34. Maintain genetic diversity within and between breeds in high external input production systems through monitoring, provision of appropriate incentives, conservation measures and awareness building.
35. Determine opportunities to enhance use of underutilized species and to use species currently not being used by establishing the required conditions to increase their contribution to food and agriculture.
36. Enhance awareness of the contribution of livestock to national economies resulting from use of all production environments.

Strategic Priority 2.3 Enhance institutional capacity to improve use and development of animal genetic resources within all available production systems

Actions

37. Enhance educational opportunities to increase the number of geneticists, animal breeders and other specialists.
38. Establish training programmes for extension workers, farmers and breeders through short courses and on-farm demonstration sites.
39. Develop, maintain and strengthen data and information systems for animal genetic resources to underpin efforts to achieve the sustainable use and development of animal genetic resources, including the acquisition of hardware and available breed development planning software.
40. Maintain access to animal genetic resources and review benefit sharing arrangement as required, to ensure continued access to animal genetic resources.

International Level

Strategic Priority 2.4 Enhance technical cooperation to assist developing countries and countries with economies in transition to better use and develop animal genetic resources

Actions

41. Provide enhanced technical assistance to developing countries and countries with economies in transition so that the full potential of animal genetic resources can be realized and all available production systems are appropriately used.
42. Enhance technology transfer and training to assist developing countries and countries with economies in transition to acquire and use state of the art technologies and implement state of the art methodologies for genetic improvement.
43. Enhance international educational opportunities for students from developing countries and countries with economies in transition to build capacity in animal genetic resource use and development.
44. Enhance collaborative efforts to assist developing countries and countries with economies in transition to establish and maintain data and information management for animal genetic resources.
45. Enhance exchange of experience between actors within regions, e.g. technical meetings of established regional focal points

PRIORITY AREA III: CONSERVATION OF ANIMAL GENETIC RESOURCES**Goal 3: Conserving animal genetic resources to ensure their availability for future use and development in all production systems****National Level****Strategic Priority 3.1 Establish comprehensive national conservation programmes for animal genetic resources****Actions**

46. Enhance levels of awareness among policy makers and all stakeholders of the need to conserve animal genetic resources.
47. Improve national data and information management capacity better to track breeds at risk or populations that are in decline.
48. Molecular characterization needs to be addressed as a priority especially for breeds facing extinction and unique genotypes. This would greatly contribute to make a case for their conservation.
49. Establish conservation plans for breeds most at risk and to prevent breeds from becoming at risk, using *in situ* and *ex situ* conservation methods.
50. Identify an appropriate organization, agency or institution to oversee breed conservation efforts.

Strategic Priority 3.2 Enhance capacity to implement *in situ* conservation measures**Actions**

51. Provide a range of incentives to farmers to encourage their participation in breed conservation plans, in particular to farmers in mountainous and other marginal areas in developed and developing countries, including: financial payments for farmers maintaining indigenous breeds, tax breaks, subsidized loans, providing access to land in exchange for conservation, and privatizing publicly funded animal genetic resource conservation projects where they have the potential to be economically sustainable.
52. Provide training to farmers and local communities to assist them to enhance production and improve returns from keeping indigenous breeds.
53. Support the development of niche markets for products of local breeds to increase profitability and encourage the keeping of local breeds.
54. Establish nucleus herds and flocks of breeds that are at risk, to supply breeding material to farmers and communities interested in participating in conservation initiatives.
55. Encourage and support research institutions and other public facilities to maintain populations of breeds that are at risk.
56. Encourage the formation of breed organizations or other non-governmental organizations to oversee breed conservation programmes and to enhance overall conservation efforts.
57. Establish breed conservation areas to prevent indiscriminate cross-breeding and to promote conservation of particular pure-bred populations, also for targeted cross-breeding.
58. Undertake research to support *in situ* conservation, including research to improve the management of small populations.
59. Enhance disease control and harmonize disease management strategies with breed conservation plans.

Strategic Priority 3.3 Enhance capacity to implement *ex situ* conservation measures**Actions**

60. Undertake research to improve *ex situ* conservation *inter alia*; selection of donor individuals, sampling size, inbreeding considerations, genetic relationships, quality evaluation, and storage technologies and methodologies.
61. Establish or strengthen facilities for *ex situ* cryogenic storage, including secondary storage sites for backup collections; and also encourage use of existing commercial centres, and artificial insemination centres.
62. Establish sampling protocols and procedures to guide selection of donor animals at the breed level for collection of genetic material for *ex situ* genebanks.
63. Establish protocols for access to genetic material stored in *ex situ* genebanks.
64. Build up, and fill gaps in *ex situ* collections, establish backup samples, and develop procedures for replenishment of genetic material taken from the genebanks.
65. Implement measures to protect genebanks storing animal genetic resources from disease outbreaks and assign special regulations for disease eradication programmes.
66. Provide training for genebank staff in all aspects of *ex situ* conservation.
67. Establish populations of breeds at risk at off-farm locations, such as zoos and parks, both as contributions to conservation efforts, and to enhance public education and awareness of the roles and values of animal genetic resources.

Strategic Priority 3.4 Respect and maintain traditional knowledge, practices and lifestyles that support conservation efforts**Actions**

68. Enhance efforts to collect and document traditional livestock knowledge and increase awareness of the contributions of indigenous and local communities, including pastoral peoples, in conserving animal genetic resources.
69. Translate or integrate traditional knowledge and practices into modern scientific tools and technology.
70. Maintain, respect and use traditional livestock knowledge, with the full involvement of the holders of such knowledge, to contribute to community conservation efforts.
71. Strengthen capacities of local and indigenous communities, breed associations and non-governmental organizations to further enable their contribution to efforts to use, develop and conserve animal genetic resources.
72. Establish demonstration sites to promote exchanges among communities which use traditional knowledge, scientists, and government officials.
73. Raise awareness about the potential risks of indiscriminate cross-breeding within traditional production systems.

International Level

Strategic Priority 3.5 Enhance regional and global collaboration to conserve animal genetic resources

Actions

74. Prepare and implement regional breed conservation plans, where appropriate, to ensure efficient use of scarce financial resources and to make best use of available expertise.
75. Use local or closely related breeds for restocking after emergencies and disasters.
76. Establish a global network of genebanks for animal genetic resources.
77. Establish “core collections” of genetic diversity for each species.

PRIORITY AREA IV: POLICIES, INSTITUTIONS AND CAPACITY BUILDING

Goal 4: Enhancing institutional development and capacity building to achieve the successful implementation of national programmes for animal genetic resources

National Level

Strategic Priority 4.1 Enhance policy development and legal frameworks for animal genetic resources to address the complex driving forces that affect the livestock sector

Actions

78. Increase awareness among policy-makers and members of the public of the many contributions of livestock, including local breeds.
79. Review and analyse current livestock policies and other policies that influence animal genetic diversity to ensure that they are compatible with the sustainable use and development of animal genetic resources, and link them to policies for compliance to other international conventions (e.g. Convention on Biological Diversity).
80. Improve integration of policies and legislation among various sectors to support livestock-related objectives and reduce conflicts among different interests.
81. As necessary, establish national breeding laws and policies to control or monitor the importation of genetic material.
82. Ensure the meaningful involvement of local and indigenous communities, breed associations and non-governmental organizations in the development and review of national policies and legislation related to animal genetic resources.
83. Develop national and regional mechanisms for monitoring policy changes affecting animal genetic resources, to ensure they are supportive of management objectives.
84. Provide or develop funding mechanisms for the management of animal genetic resources

Strategic Priority 4.2: Enhance national institutions for planning and implementing animal genetic resources initiatives, including National Focal Points for Animal Genetic Resources

Actions

85. Establish, facilitate and support farmer interest groups, research, breeder organizations or associations and other relevant non-governmental organizations
86. Establish, maintain and strengthen National Focal Points for animal genetic resources.

87. As appropriate, maintain and support national animal genetic resources advisory committees to support the design, elaboration and implementation of national programmes for animal genetic resources, and to monitor progress.
88. Develop strong national networks for animal genetic resources to promote the involvement of all stakeholders and enhance coordination of initiatives among diverse interests.
89. Define official regular tasks for National coordinators to strengthen their position.

Strategic Priority 4.3: Enhance efforts to develop human resources capacity in priority areas for animal genetic resources management

Actions

90. Enhance national efforts and investments to increase opportunities for education and training in the use, development and conservation of animal genetic resources according to priorities identified in Country Reports.
91. Encourage and support students to undertake studies in animal genetic resources at the undergraduate and graduate levels.
92. Train staff in advanced methodologies and technologies through short-term courses and study tours.
93. Strengthen research to support the sustainable use and development of animal genetic resources through enhanced investment by both the public and private sectors.
94. Enhance communication and networking to better share the results of research on animal genetic resources with all those that may benefit from this knowledge; establish or strengthen partnerships among scientists and practitioners.

Strategic Priority 4.4 Strengthen research institutions and enhance research to support efforts to use, develop and conserve animal genetic resources

Actions

95. Strengthen research programmes that are directly related to the use, development and conservation of animal genetic resources through enhanced investments by both the public and private sectors.
96. Develop strategies for cryoconservation of the best suited material for each species (semen, embryos, cells).
97. Modernize existing research facilities and establish new research institutions as required.
98. Better disseminate data and information resulting from research among all stakeholders.

Strategic Priority 4.5 Increase public awareness of the roles and values of animal genetic resources to promote further investments in this sector

Actions

99. Raise public awareness of the roles, values and functions of animal genetics resources at special events where farm animals are profiled.
100. Support non-governmental organizations' efforts to increase awareness of the roles, values and functions of animal genetics resources.
101. Engage the media to raise awareness of the roles, values and functions of animal genetic resources.

102. Increase efforts to promote understanding of the need to conserve animal genetic resources within the private sector, and promote private sector involvement in conservation initiatives.

International Level

Strategic Priority 4.6 Enhance collaborative research to further develop methodologies for characterization, economic valuation and improved use of animal genetic resources

Actions

103. Undertake collaborative regional and global characterization research and analysis to better share emerging applications for improved characterization.
104. Develop regional/global standardized protocols and formats for comparative performance characterization and to develop robust protocols to guide efforts to make breed comparisons across production environments, and appropriate methodologies where performance recording is challenging.
105. Enhance international collaboration to determine opportunities for international training and education in all priority areas of animal genetic resource management, where this is not available within countries.
106. Establish regional and global partnerships to facilitate the establishment of regional research centres and “Centres of Excellence” for animal genetic resources.
107. Enhance collaborative research to further global efforts to enhance use and development of animal genetic resources.
108. Establish a cadre of scientists and educators to identify potential sources of expertise to assist in developing animal genetic resource strategies and programmes.
109. Enhance the sharing of experiences of countries that have established breed organizations and associations, and other units that provide extension services, veterinary care, etc.
110. Convene training courses, workshops and symposia, with FAO playing a key role in their organization.

Strategic Priority 4.7 Enhance opportunities for recipient and donor interaction to further mobilize support for animal genetic resource use, development and conservation

Actions

111. Continue to convene donor stakeholder meetings to identify opportunities to mobilize financial resources to implement identified national priorities.
112. Enhance integration of programme delivery by international organizations to ensure financial resources are effectively delivered to national and regional priorities.
113. Increase the awareness of policy-makers in developing and developed countries of the important roles and values of animal genetic resources in order to increase investments in the management of these resources.
114. Through involvement in regional bodies and structures, establish initiatives aimed at the sustainable use and development of animal genetic resources to efficiently use scarce financial resources and make effective use of available expertise.

Strategic Priority 4.8 Establish Regional Focal Points as required, to enhance regional collaboration in the use, development and conservation of animal genetic resources

Actions

115. Continue to investigate ways and means to establish and maintain regional networks for animal genetic resources and establish and maintain Regional Focal Points where appropriate.

Strategic Priority 4.9 Strengthen the involvement and contributions of international organizations in supporting the implementation of national priorities

Actions

116. Enhance technical assistance from FAO and other organizations at the country and regional levels to advance and implement priority actions identified in Country Reports and to undertake required research and technical support.
117. Enhance capacity within FAO and other international organizations, including the veterinary organizations and services, to further enable them to support implementation of national and regional priority actions for animal genetic resources.
118. Mobilize international institutions to enhance their interest in providing scientific and technical support for animal genetic resources.
119. Continue the operation of the Global Focal Point for animal genetic resources.