

December 2012



منظمة الأغذية
والزراعة للأمم
المتحدة

联合国
粮食及
农业组织

Food and
Agriculture
Organization
of the
United Nations

Organisation des
Nations Unies
pour
l'alimentation
et l'agriculture

Продовольственная и
сельскохозяйственная
организация
Объединенных
Наций

Organización
de las
Naciones Unidas
para la
Alimentación y la
Agricultura

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Item 2.2 of the Provisional Agenda

Fourteenth Regular Session

Rome, 15-19 April 2013

TARGETS AND INDICATORS FOR ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE

TABLE OF CONTENTS

	Paragraphs
I. Introduction	1-4
II. Process indicators and targets	5-16
III. Resource indicators and targets	17-23
IV. Guidance sought	24-26
Annex 1	Level of implementation of Strategic Priorities of the <i>Global Plan of Action</i>
Annex 2	Categorization of the answers in the country questionnaire – an example
Annex 3	Indicators and targets to measure the implementation of the <i>Global Plan of Action</i>
Annex 4	Status of process indicators
Annex 5	Impact of a ten year cut-off point beyond which breeds revert to the unknown risk-status category

This document is printed in limited numbers to minimize the environmental impact of FAO's processes and contribute to climate neutrality. Delegates and observers are kindly requested to bring their copies to meetings and to avoid asking for additional copies. Most FAO meeting documents are available on the Internet at www.fao.org

Tables

- 1 Indicators for strategic priority areas to measure the implementation of the *Global Plan of Action*, related targets and related Strategic Priority Areas (SPA), Strategic Priority Area goals and Strategic Priorities (SP)
- 2 Indicators for strategic priorities to measure the implementation of the *Global Plan of Action*, related targets and related strategic priorities
- 3 Colour scale used to express the indicators
- 4a Global overview of indicators for Strategic Priority Areas (expressed as colours and average scores) and percentage of countries with low, medium or high level of implementation
- 4b Global overview of indicators for Strategic Priorities (expressed as colours and average scores) and percentage of countries with low, medium or high level of implementation

Figures

- 1a Risk status of the world's mammalian breeds in October 2010 (as percentages) without and with a ten year cut-off
- 1b Risk status of the world's avian breeds in October 2010 (as percentages) without and with a ten year cut-off

I. INTRODUCTION

1. At its Thirteenth Regular Session, the Commission on Genetic Resources for Food and Agriculture (the Commission) considered the document *International targets and indicators for biodiversity for food and agriculture*¹ and welcomed FAO's work in the development and use of international indicators for biodiversity for food and agriculture as part of the Biodiversity Indicator Partnership (BIP). The Commission stressed that indicators should be policy relevant, scientifically sound, understandable, feasible to obtain and sensitive to changes. The Commission encouraged FAO to continue to develop, test and apply biodiversity indicators, and thereby contribute to the Strategic Plan for Biodiversity 2011–2020.² The *Global Plan of Action for Animal Genetic Resources (Global Plan of Action)* states that “measurable and time-bound goals may be developed, to help the international community to judge progress and success”.³
2. The Commission reaffirmed that it would take a lead role in the development and use of targets and indicators for biodiversity for food and agriculture and requested FAO to:
 - identify or refine indicators to measure progress made in the implementation of the *Global Plan of Action for Animal Genetic Resources* and to continue to further develop, through regionally balanced consultations, the headline indicator of the Convention on Biological Diversity for trends in genetic diversity of domesticated animal species of major socio-economic importance, as recommended by the Commission's Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture (Working Group);
 - identify targets and indicators within the planned or ongoing processes of global assessments or action plans under the mandate of the Commission; and continue efforts to develop indicators and associated targets at the genetic level, to facilitate status and trends reporting on animal genetic diversity for food and agriculture at regular sessions of the Commission, which could also contribute to other biodiversity reporting requirements; and
 - consider, and advise on, how such indicators may provide a basis for countries to assess progress towards the achievement of the Aichi Biodiversity Targets, as relevant, in particular Target 13.⁴
3. The Commission requested its Intergovernmental Technical Working Groups to continue to review targets and indicators for genetic diversity and other aspects of biodiversity within their respective sectors, and to provide recommendations to the Commission on their further development.⁵
4. Reporting on the implementation of the *Global Plan of Action* is twofold. One line of reporting focuses on the process of implementing the *Global Plan of Action*, and is described in the document *Evaluating progress in the implementation of the Global Plan of Action for Animal Genetic Resources*.⁶ The second reporting line focuses on the state of animal genetic resources themselves, as reducing the loss of diversity in these resources is a measurable indicator of the success of the *Global Plan of Action*.⁷

II. PROCESS INDICATORS AND TARGETS

5. This section gives an overview of indicators and targets developed for the purpose of assessing progress in the implementation of the *Global Plan of Action for Animal Genetic Resources*.

¹CGRFA-13/11/18.

²CGRFA-13/11/Report, paragraph 95-97.

³*Global Plan of Action*, paragraph 19, clause 2.

⁴CGRFA-13/11/Report, paragraph 98.

⁵CGRFA-13/11/Report, paragraph 99.

⁶CGRFA/WG-AnGR-5/09/3.1.

⁷GRFA/WG-AnGR-5/09/3.2 paragraph 8.

The indicators are based on a questionnaire that was developed to assist Commission Member countries in preparing their first Country Progress Report on the implementation of the *Global Plan of Action*. The questionnaire was designed so as to enable the collection of baseline data on the status of implementation of each of the four strategic priority areas (SPA) of the *Global Plan of Action*, the 13 strategic priorities (SP) that are to be implemented mainly at national level (see Annex 1), and collaboration and funding (Part 3 of the *Global Plan of Action*). The content of the questionnaire⁸ was agreed upon by the Commission at its Twelfth Regular Session.⁹

6. Detailed analysis of the Country Progress Reports is provided in the document *Synthesis progress report on the implementation of the Global Plan of Action for Animal Genetic Resources – 2012 (Synthesis progress report)*.¹⁰

7. Two types of process indicators are proposed: indicators at the level of strategic priority areas (SPAs), which describe the status of implementation of the four SPAs of the *Global Plan of Action* and of collaboration and funding; and indicators at the level of strategic priorities (SPs), which describe the status of implementation of each SP that is to be implemented mainly at national level (Annex 1). In total, 6 indicators at the SPA level and 14 indicators at SP level are proposed.

8. Tables 1 and 2 in Annex 3 give an overview of the proposed indicators and the respective targets. The indicators for SPAs are linked to the respective goals as described in the *Global Plan of Action*. The methods for deriving the indicators and targets are described below.

9. Each of the 66 questions in the Country Progress Report questionnaire¹¹ is directly related to one of the four SPAs or to collaboration and funding as described in the *Global Plan of Action*. Most questions are also linked to one of the SPs. Because of the condensed nature of the Country Progress Report questionnaire, in some cases the set of questions associated with a given indicator does not fully cover all aspects of the respective SP or SPA. To address these gaps and enhance the comprehensiveness of future rounds of reporting, the questionnaire will be amended to improve its coverage and clarity.¹²

10. For the calculation of the indicators, only the 55 mandatory questions with a fixed set of multiple-choice answers are considered. Answers are categorized based on the degree of implementation indicated by the country (ranging from a high to a medium or a low degree of implementation). An example is provided in Annex 2.

11. The implementation categories provide the basis for a scoring system in which a high degree of implementation scores 2 points, a medium degree scores 1 point and a low degree scores 0 points. The average score for all questions linked to any given element of the *Global Plan of Action* (SP, SPA, collaboration or funding) can then be calculated. The average score expresses the completeness or status of implementation of the respective element of the *Global Plan of Action* and serves as the indicator for this element (see Table 2 in Annex 3).

12. To provide an easily interpretable graphical presentation of the indicators, the average scores are translated into eight colours, ranging from deep red for an average score close to zero (no or almost no action has been taken) via yellow (the respective element of the *Global Plan of Action* has been partly implemented), to deep green for scores close to 2 (the respective element has been fully or almost fully implemented). The colour scheme (Table 3 in Annex 4) has been chosen to reflect traffic-light colours and thereby to provide stakeholders with an easy means of monitoring the state of implementation of the various elements of the *Global Plan of Action*.

13. The above-described approach also allows measurable targets to be formulated for each indicator. In all cases, the proposed target is to increase the completeness or to improve the status of the implementation of the respective elements of the *Global Plan of Action* in relation to a sliding baseline.

⁸CGRFA-12/09/Inf.9.

⁹CGRFA-12/09/Report paragraph 38.

¹⁰CGRFA-14/13/Inf.15.

¹¹http://www.fao.org/ag/againfo/programmes/documents/genetics/global/GPA_RR_form.pdf

¹²Reference needed to information document including revised questionnaire.

14. The targets fall within the scope of *Aichi Target 4*¹³ (Governments, business and stakeholders have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits) and *Aichi Target 7*¹⁴ (Areas under agriculture are managed sustainably, ensuring conservation of biodiversity). However, definitions of “sustainable production and consumption” and “sustainable management” in the livestock sector remain to be agreed upon.¹⁵ The element of *Aichi Target 13*¹⁶ stating that “strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity” is particularly reflected in the target for Strategic Priority Area 4 (Annex 3, Table 1).

15. The baseline presented in Tables 4a and 4b in Annex 4 was calculated using the information provided by the 80 countries that completed the Country Progress Report questionnaire in 2012 and shows the percentage of countries with high, medium and low states of implementation for each indicator. It also shows the average scores for the indicators expressed as colours. This gives an immediate impression of which aspects of the implementation of the *Global Plan of Action* remain the most challenging. Table 4a shows, for example, that globally, progress in the areas of collaboration and funding has been limited, while Table 4b shows that *in situ* conservation at national level is making good progress. The baselines at country and regional levels are shown in the *Synthesis progress report*.¹⁷

16. National governments will provide Country Progress Reports every four years, using the questionnaire used for the current round of reporting.¹⁸ This will enable the evaluation of the targets by comparing the new results with the baseline (Annex 4, Table 4a and 4b). In order to ensure that the figures are comparable, only countries that contributed to the baseline (Annex 4, Table 3) will be considered in this calculation. All questionnaires received in the next round of reporting will be analysed as a basis for describing the new status of implementation of the *Global Plan of Action* and will be used to prepare a new baseline.

III. RESOURCE INDICATORS AND TARGETS

17. This section gives an overview of indicators that could be used to monitor the status of animal genetic resource diversity and hence the impact that the implementation of the *Global Plan of Action* has on this diversity. The proposed indicators are based on FAO’s Global Databank for Animal Genetic Resources for Food and Agriculture,¹⁹ as this is the only database that provides worldwide coverage of breed population data.²⁰ The target associated with the resource indicators corresponds to *Aichi Target 13*²¹ and could be formulated as follows: “the genetic diversity of farmed and domesticated animals is maintained”.

18. Since the adoption of the *Global Plan of Action*, data on the status and trends of animal genetic resources have been published by FAO in biennial reports, following a template agreed by the Commission at its Twelfth Regular Session.²² The template indicates that the status and trends reports should include the Convention on Biological Diversity’s headline indicator for “trends in genetic diversity of domesticated animal species of major socio-economic importance”, once this indicator has been developed. To meet this requirement, FAO convened an expert workshop on

¹³UNEP/CBD/COP/DEC/X/2 Annex paragraph 13.

¹⁴UNEP/CBD/COP/DEC/X/2 Annex paragraph 13.

¹⁵See also Rio+20 Outcome of the Conference, Agenda item 10, The future we want, paragraph 111, 112.

¹⁶CGRFA-13/11/Report, paragraph 98.

¹⁷CGRFA-14/13/Inf.15.

¹⁸CGRFA-12/09/Report, paragraph 38.

¹⁹<http://dad.fao.org/>

²⁰CGRFA/WG-AnGR-5/09/3.2 paragraph 11.

²¹UNEP/CBD/COP/DEC/X/2 Annex paragraph 13.

²²CGRFA-12/09/Report, paragraph 39.

indicators in February 2010.²³ The experts proposed three indicators to be calculated at national, regional and global levels for 17 different species.

19. The approach recommended by the expert workshop requires the development of a new system for classifying breeds according to whether or not they are “native” or “non-native” to a given country. At its Thirteenth Regular Session, the Commission requested the Working Group on Animal Genetic Resources to work further on the definition of breed categories, in addition to the already agreed definitions of local and transboundary breeds.²⁴ To address this request, FAO organized an electronic global consultation on breed categories involving all National Coordinators for the Management of Animal Genetic Resources.²⁵ A proposed new classification system based on the results of the consultation is described in the document *Report of a consultation on the definition of breed categories*.²⁶

20. Based on the outcomes of the workshop on indicators and the global consultation on breed categories, the following set of resource indicators is proposed:

- number of locally adapted breeds;
- proportion of the total population accounted for by locally adapted and exotic breeds; and
- number of breeds classified as at risk, not at risk and unknown.

21. Calculating the proposed set of indicators requires classifying all breeds according to whether or not they are “locally adapted” or “exotic” to a given country, developing means to record the new classification in DAD-IS, and entering the respective data for all the breed records in DAD-IS. The second indicator (proportion of the total population accounted for by locally adapted and exotic breeds) also needs to be validated as it is vulnerable to being affected by gaps in the availability of breed population data in DAD-IS. The expert meeting proposed that national figures for the total population size of each species should be obtained from FAO’s statistical database (FAOSTAT).²⁷ The third indicator (number of breeds by risk-status category) is provided in the *Status and trends report on animal genetic resources – 2012*.²⁸ However, the figures are presented according to the distributional breed categories (local, regional transboundary and international transboundary) and not according to the proposed adaptedness classification.

22. The expert workshop also recommended that the figures for trends in breed risk status presented in the status and trends reports should be calculated based on the most up-to-date current and historical data available in DAD-IS at the time of calculation rather than by comparing current data to those presented in older reports. It was further proposed that for this purpose breeds should be allocated to their current distributional and/or adaptedness classifications. The objective of this approach would be to remove the confounding effects that occur when changes to breeds’ risk statuses occur simultaneously with improvements in the reporting of breed inventories or with changes in breeds’ allocation to the various classification categories. Such an approach allows the formulation of a measurable target directly related to the following aspect of Aichi Target 13: “the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained”. The respective target would be “Number of locally adapted breeds classified as extinct or at risk does not increase.”

23. The expert workshop also noted the potentially misleading consequences of including breeds for which no updates of population data have occurred for many years in the calculation of indicators used to show trends over short periods such as the two-year reporting cycle requested by the Commission.²⁹ The expert workshop further noted that the problem could be reduced by introducing

²³Report: Workshop on Indicators to Measure Trends in Genetic Diversity of Domesticated Animals; http://www.fao.org/ag/againfo/programmes/en/genetics/documents/ITWG_AnGR_6/indicator_report.pdf

²⁴CGRFA-13/11/Report, paragraph 82.

²⁵<http://dad.fao.org/cgi-bin/EfabisWeb.cgi?sid=-1,contacts>

²⁶CGRFA/WG-AnGR-7/12/Inf.7.

²⁷<http://faostat.fao.org/default.aspx>

²⁸CGRFA/WG-AnGR-6/10/Inf.3 Section IV and Annex 2.

²⁹CGRFA-12/09/Report, paragraph 39.

a cut-off point after which breeds revert to the “unknown” risk-status category if population figures are not updated; it proposed that a ten-year cut-off point should be introduced for this purpose. While such a cut-off would lead to a more realistic picture, it would also mean that, initially, a higher proportion of breeds would be classified as being of unknown risk status. An example is provided in Annex 5.

IV. GUIDANCE SOUGHT

24. The Commission may wish to:
 - i. agree to the use of the proposed process and resources indicators, and related targets, to monitor the implementation and impact of the *Global Plan of Action for Animal Genetic Resources*; and
 - ii. invite FAO, together with partners, especially the Convention on Biological Diversity, to develop agreed definitions for what constitutes sustainable production and consumption, and sustainable management, in the livestock sector.
25. The Commission may wish to request FAO to:
 - i. provide long-term regular programme staff support for the maintenance and continued development of DAD-IS and further develop DAD-IS so as to facilitate the entry of data for all breed records, including those related to the new breed classification described in the document *Report of a consultation on the definition of breed categories*,³⁰ and so as to give reporting countries the option of indicating that a given locally adapted breed is native to the respective country;
 - ii. include the set of proposed resource indicators in future status and trends reports of animal genetic resources; and present trends in breed risk status in the status and trends reports based on the most up-to-date current and historical data available in DAD-IS at the time of calculation;
 - iii. introduce, for the purpose of calculating risk status, a cut-off point of ten years, beyond which the risk status of a breed is considered to be unknown if no updated population data are reported; and
 - iv. publish process indicators in future Synthesis progress reports on the implementation of the *Global Plan of Action*.
26. The Commission may further wish to:
 - i. invite donors to contribute support to enable maintenance and development of DAD-IS as the global clearing house mechanism for animal genetic resources;
 - ii. urge countries to provide information on how their breeds recorded in DAD-IS should be assigned to the categories “exotic” and “locally adapted” for the purposes of calculating the proposed set of resource indicators; and
 - iii. urge countries to update regularly their breed population data in DAD-IS, including data for exotic breeds.

³⁰CGRFA/WG-AnGR-7/12/Inf.7.

Annex 1

Level of implementation of Strategic Priorities of the *Global Plan of Action*

GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES	STRATEGIC PRIORITY AREA 1 CHARACTERIZATION, INVENTORY AND MONITORING OF TRENDS AND ASSOCIATED RISKS	STRATEGIC PRIORITY AREA 2 SUSTAINABLE USE AND DEVELOPMENT	STRATEGIC PRIORITY AREA 3 CONSERVATION	STRATEGIC PRIORITY AREA 4 POLICIES, INSTITUTIONS AND CAPACITY BUILDING
NATIONAL	<p>SP 1 Inventory and characterize AnGR, monitor trends and risks associated with them, and establish country-based early-warning and response systems</p>	<p>SP 3 Establish and strengthen national sustainable use policies</p> <p>SP 4 Establish national species and breed development strategies and programmes</p> <p>SP 5 Promote agro-ecosystems approaches to the management of AnGR</p> <p>SP 6 Support indigenous and local production systems and associated knowledge systems of importance to the maintenance and sustainable use of AnGR</p>	<p>SP 7 Establish national conservation policies</p> <p>SP 8 Establish or strengthen in situ conservation programmes</p> <p>SP 9 Establish or strengthen ex situ conservation programmes</p>	<p>SP 12 Establish or strengthen national institutions, including national focal points, for planning and implementing AnGR measures, for livestock sector development</p> <p>SP 13 Establish or strengthen national educational and research facilities</p> <p>SP 14 Strengthen national human capacity for characterization, inventory, and monitoring of trends and associated risks, for sustainable use and development, and for conservation</p> <p>SP 18 Raise national awareness of the roles & values of AnGR</p> <p>SP 20 Review and develop national policies and legal frameworks for AnGR</p>
REGIONAL			<p>SP 10 Develop and implement regional and global long-term conservation strategies</p>	<p>SP 17 Establish Regional Focal Points and strengthen international networks</p>
INTERNATIONAL	<p>SP 2 Develop international technical standards and protocols for characterization, inventory, and monitoring of trends and associated risks</p>		<p>SP 11 Develop approaches and technical standards for conservation</p>	<p>SP 15 Establish or strengthen international information sharing, research and education</p> <p>SP 16 Strengthen international cooperation to build capacities in developing countries and countries with economies in transition,</p> <p>SP 19 Raise regional and international awareness of the roles and values of AnGR</p> <p>SP 21 Review and develop international policies and regulatory frameworks relevant to AnGR</p> <p>SP 22 Coordinate the Commission's efforts on AnGR policy with other international forums</p> <p>SP 23 Strengthen efforts to mobilize resources, including financial resources, for the conservation, sustainable use and development of AnGR</p>

Annex 2

Categorization of the answers in the country questionnaire – an example:

Question 2 can serve as an example of how the answers are categorized. The question is formulated as follows “Which of the following options best describes your country's progress in implementing phenotypic characterization?” The following options were provided:

- a. Comprehensive studies were undertaken before the adoption of the GPA
- b. Sufficient information has been generated because of progress made since the adoption of the GPA
- c. Some information has been generated (further progress since the adoption of the GPA)
- d. Some information has been generated (no further progress since the adoption of the GPA)
- e. None, but action is planned and funding identified
- f. None, but action is planned and funding is sought
- g. None

This question falls under SPA1 and SP1. Answers a and b express a high degree of implementation, answers c and d express a medium degree of implementation, and answers e to f express a low degree of implementation.

Annex 3

Indicators and targets to measure the implementation of the *Global Plan of Action*

Table 1. Indicators for strategic priority areas to measure the implementation of the *Global Plan of Action*, related targets and related Strategic Priority Areas (SPA), Strategic Priority Area goals and Strategic Priorities (SP)

Reference in <i>Global Plan of Action</i>	SPA goal	Strategic Priority Area-level indicator	Target for Strategic Priority Area-level indicator	SP included
SPA1: Characterization, inventory and monitoring of trends and associated risks	Improved understanding of the status, trends and associated risks, and characteristics of all aspects and components of animal genetic resources, to facilitate and enable decision-making for their sustainable use, development and conservation.	The completeness of characterization and inventory and the regularity of monitoring of trends and associated risks	Increase the completeness of characterization and inventory and improve monitoring of trends and associated risks	SP1a SP1b
SPA2: Sustainable use and development	Enhanced sustainable use and development of animal genetic resources in all relevant production systems, as a key contribution to achieving sustainable development, poverty eradication and adaptation to the effects of climate change.	The state of sustainable use and development	Improve the state of sustainable use and development	SP3 SP4 SP5 SP6
SPA3: Conservation	Secure the diversity and integrity of the genetic base of animal genetic resources by better implementing and harmonizing measures to conserve these	The state of conservation	Improve the state of conservation	SP7 SP8 SP9
SPA4: Policies, institutions and capacity-building	Established cross-cutting policies and legal frameworks, and strong institutional and human capacities to achieve successful medium- and long-term planning for livestock sector development, and the implementation of national programmes for the long-term	The state of national policies and legal frameworks and efforts to strengthen institutional and human capacities	Improve the state of national policies and legal frameworks and increase efforts to strengthen institutional and human capacities	SP12 SP13 SP14 SP18 SP20
Part III Collaboration: The state of international collaboration for planning and implementing animal genetic resources measures		Improve the state of international collaboration for planning and implementing animal genetic resources measures		

Reference in <i>Global Plan of Action</i>	SPA goal	Strategic Priority Area-level indicator	Target for Strategic Priority Area-level indicator	SP included
Part III Funding: The state of funding for the conservation, sustainable use and development of animal genetic resources		Improve the state of funding for the conservation, sustainable use and development of animal genetic resources		

Table 2. Indicators for strategic priorities to measure the implementation of the *Global Plan of Action*, related targets and related strategic priorities

Reference in <i>Global Plan of Action</i>	Strategic Priority level indicator	Target
SP1a: Inventory and characterize animal genetic resources, monitor trends and risks associated with them, and establish country-based early-warning and response	The completeness of characterization	Increase the completeness of characterization
SP1b: Inventory and characterize animal genetic resources, monitor trends and risks associated with them, and establish country-based early-warning and response	The completeness of inventory and the regularity of monitoring of trends and associated risks	Increase the completeness of inventory and improve monitoring of trends and associated risks
SP3: Establish and strengthen national sustainable use policies	The state of national sustainable use policies	Improve the state of sustainable use policies
SP4: Establish national species and breed development strategies and programmes	The state of national species and breed development strategies and programmes	Improve the state of national species and breed development strategies and programmes
SP5: Promote agro-ecosystems approaches to the management of animal genetic resources	The state of efforts to promote agro-ecosystems approaches to the management of animal genetic resources	Increase efforts to promote agro-ecosystems approaches to the management of animal genetic resources
SP6: Support indigenous and local production systems and associated knowledge systems of importance to the maintenance and sustainable use of animal genetic resources	The state of efforts to support indigenous and local production systems and associated knowledge systems of importance to the maintenance and sustainable use of animal genetic resources	Increase efforts to support indigenous and local production systems and associated knowledge systems of importance to the maintenance and sustainable use of animal genetic resources
SP7: Establish national conservation policies	The state of national conservation policies	Improve the state of national conservation policies

Reference in <i>Global Plan of Action</i>	Strategic Priority level indicator	Target
SP8: Establish or strengthen in situ conservation programmes	The state of in situ conservation programmes	Improve the state of in situ conservation programmes
SP9: Establish or strengthen ex situ conservation programmes	The state of ex situ conservation programmes	Improve the state of ex situ conservation programmes
SPI2: Establish or strengthen national institutions, including national focal points, for planning and implementing animal genetic resources measures, for livestock sector development	The state of efforts to strengthen national institutions for planning and implementing animal genetic resources measures	Increase efforts to strengthen national institutions for planning and implementing animal genetic resources measures
SPI3: Establish or strengthen national educational and research facilities	The state of efforts to strengthen national educational and research facilities	Increase efforts to strengthen national educational and research facilities
SPI4: Strengthen national human capacity for characterization, inventory, and monitoring of trends and associated risks, for sustainable use and development, and for conservation	The state of efforts to strengthen national human capacity for characterization, inventory, and monitoring of trends and associated risks, for sustainable use and development, and for conservation	Increase efforts to strengthen national human capacity for characterization, inventory, and monitoring of trends and associated risks, for sustainable use and development, and for conservation
SPI8: Raise national awareness of the roles and values of animal genetic resources	The state of efforts to raise national awareness of the roles and values of animal genetic resources	Increase efforts to raise national awareness of the roles and values of animal genetic resources
SP20: Review and develop national policies and legal frameworks for animal genetic resources	The state of national policies and legal frameworks for animal genetic resources	Improve the state of national policies and legal frameworks for animal genetic resources

Annex 4

Status of process indicators

Table 3. Colour scale used to express the indicators

Scores for colour class*	Indicator colour
0.00 – 0.25	
0.25 – 0.50	
0.50 – 0.75	
0.75 – 1.00	
1.00 – 1.25	
1.25 – 1.50	
1.50 – 1.75	
1.75 – 2.00	

*Border values included in lower category.

Table 4a. Global overview of indicators for Strategic Priority Areas (expressed as colours and average scores) and percentage of countries with low, medium or high level of implementation

Reference in the <i>Global Plan of Action</i>	% countries low	% countries medium	% countries high	Indicator colour and average score
SPA1	31	31	38	1.11
SPA2	30	31	39	1.04
SPA3	39	20	41	1.01
SPA4	34	32	34	0.98
Collaboration	73	20	7	0.53
Funding	93	0	7	0.32

Table 4b. Global overview of indicators for Strategic Priorities (expressed as colours and average scores) and percentage of countries with low, medium or high level of implementation

Reference in the <i>Global Plan of Action</i>		% countries low	% countries medium	% countries high	Indicator colour and average score
SPA1	SP1a	30	6	64	1.19
	SP1b	34	25	41	1.06
SPA2	SP3	41	14	19	0.75
	SP4	37	19	44	1.06
	SP5	44	16	40	1.04
	SP6	35	40	25	0.92
SPA3	SP7	29	32	39	0.80
	SP8	34	0	66	1.33
	SP9	49	0	51	0.92
SPA4	SP12	35	23	42	1.05
	SP13	58	21	21	0.76
	SP14	50	8	42	0.91
	SP18	36	0	64	1.28
	SP20	49	17	34	0.87

Annex 5

Impact of a ten year cut-off point beyond which breeds revert to the unknown risk-status category

Figure 1a. Risk status of the world’s mammalian breeds in October 2010 (as percentages) without and with a ten year cut-off

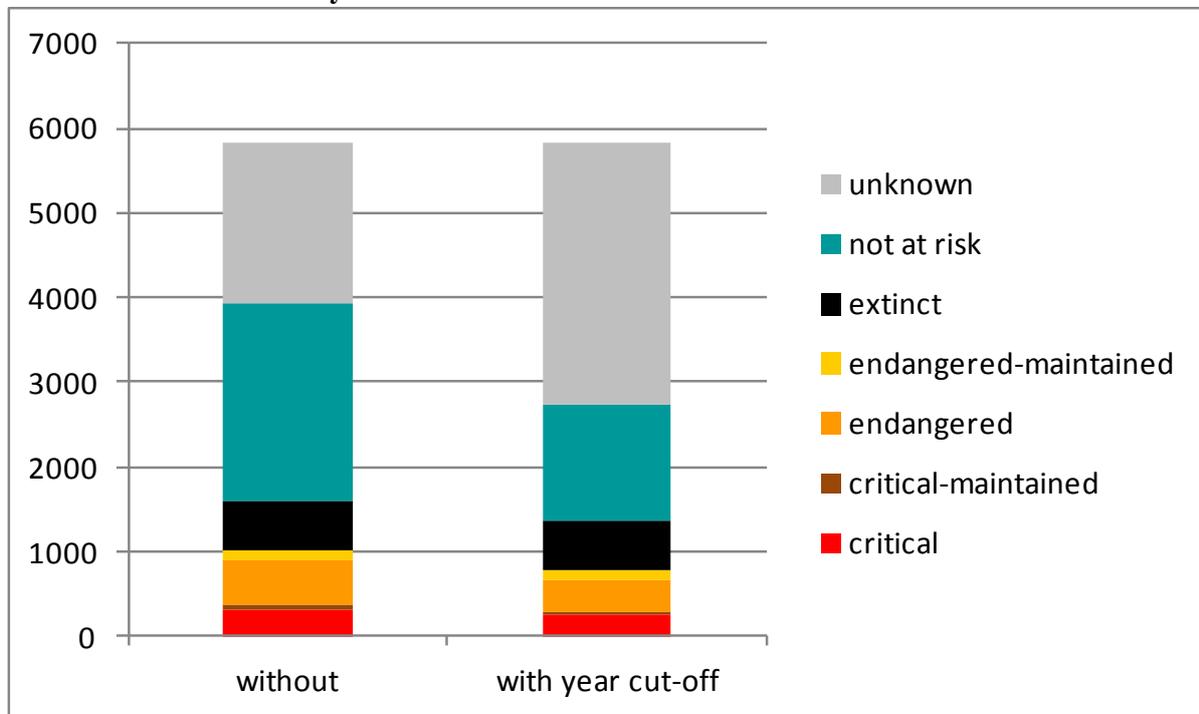


Figure 1b. Risk status of the world’s avian breeds in October 2010 (as percentages) without and with a ten year cut-off

