# UPDATING OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION AND SUSTAINABLE USE OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE: REPORT OF THE AFRICAN REGIONAL CONSULTATION

### I. INTRODUCTION

- 1. The Commission on Genetic Resources for Food and Agriculture (Commission), at its Twelfth Regular Session in October 2009 endorsed the Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture (SOW-2) and considered updating the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (GPA). The Commission agreed to update it in line with the Strategic Plan 2010-2017 for the implementation of the Multi-Year Programme of Work. It requested the Food and Agriculture Organization of the United Nations (FAO) to prepare the updated GPA based primarily on the SOW-2, and in particular, on the identified gaps and needs, taking into account further contributions from Governments, as well as inputs received from regional meetings and consultations. It further decided that the updated GPA would be considered at its Thirteenth Regular Session in 2011.
- 2. An African Regional Consultation for gathering inputs for the update of the GPA was held in Nairobi, Kenya, 2-3 June 2010. It was organized by FAO with technical and logistical support from Bioversity International in collaboration with the Kenyan Agricultural Research Institute (KARI), Ministry of Agriculture. Representatives attended the consultation from Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo (Republic of), Cote d'Ivoire, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Madagascar, Malawi, Mali, Mauritius, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Tanzania (the United Republic of), Togo, Uganda, Zambia and Zimbabwe, as well as observers from the SADC Plant Genetic Resources Centre (SPGRC), the Eastern Africa Plant Genetic Resources Network (EAPGREN), the International Institute for Tropical Agriculture (IITA). The secretariats of the Commission and of the International Treaty on plant genetic resources for food and agriculture (International Treaty) were also present.
- 3. The meeting was organized in plenary and working group sessions, and was conducted in both English and French. A working document containing the current GPA and relevant sections of the SoW-2, in particular, sections dealing with identified gaps and needs, and a regional analysis of the state of plant genetic resources for food and agriculture (PGRFA) were made available to the participants before the consultation and used as the basis for discussion during the working sessions.
- 4. The meeting was opened by the FAO Representative in Kenya, Mr. Castro Camarada, who welcomed delegates and emphasized the role of PGR in world food security, the need to take appropriate measures to respond to new challenges such as climate change, and to realize opportunities to apply new technologies. Opening remarks were also provided by: Messrs. Zachary Muthamia on behalf of the host country and KARI; Mr Dan Leskien on behalf of the

- secretariat of the Commission, Mr Kent Nnadozie on behalf of the International Treaty secretariat; and Mr Jojo Baidu-Forson on behalf of Bioversity International.
- 5. Closing remarks were given by Mr Cheikh Alassane Fall, representative of the African Regional Group and a member of the Bureau of the Commission. He thanked the Governments of Italy and Spain for their financial support and the delegates, organizers and supporting staff for their contributions and active participation.

### II. INTRODUCTORY PRESENTATIONS

- 6. Ms Barbara Pick, FAO, indicated the importance of gathering inputs and recommendations from all regions in order to update the GPA as requested by the Commission. She stated that the main objective for the African consultation was to receive inputs and recommendations from representatives of the region on both the content and structure, which would serve as inputs in the updating of the GPA. It was noted that while common positions would be helpful in providing advice to FAO, there was no need to achieve consensus among all representatives. All options would be recorded.
- 7. Mr Stefano Diulgheroff, FAO, first reviewed the process and timeline for preparing the updated GPA, as had been approved by the Commission. He provided an overview of the significant changes and challenges in PGRFA conservation and use, as well as gaps and needs identified in the SOW-2. These would be considered in updating the GPA, based upon advice received during the regional consultations.
- 8. Mr Dan Kiambi provided a summary overview of gaps and needs for updating of the GPA from the African region perspective. This summary had been prepared based on Country Reports for Plant Genetic Resources from the region, which had been prepared as contributions to the process of preparing the SOW-2.
- 9. Mr Diulgheroff described the process for undertaking the consultations. He noted that five working groups would consider five separate agenda items, and that each working group was to be provided with a facilitator-recorder. The results of each working group would be presented and discussed in plenary sessions, providing delegates with opportunities to summarize key messages to be considered in the GPA updating process, including the most significant changes and challenges that needed to be considered.

### III. SUMMARY OF RESULTS

### A. Review of the Leipzig Declaration and Introduction

10. The consultation suggested development of a document (resolution or declaration), which would capture new areas that have come to light since 1996, such as climate change, trends in food security, niche markets, policy environment including the International Treaty, the Millennium Development Goals, access and benefit sharing regimes and transfer of technology. It was agreed that the updated GPA should reference the Leipzig declaration; make reference to the inadequacy of resources for the implementation of the 1996 Plan; request the Bureaus of the Commission and International Treaty to consider best options to replace the Leipzig Declaration, including consideration of a joint draft Resolution between the Commission and the Governing Body. The consultation also noted that the Bureaus may

- also wish to recommend to their respective bodies that that the updated GPA be endorsed by the FAO Conference, in addition to the Governing Body of the Treaty and the Commission.
- 11. The Consultation noted that it would also be important to highlight the urgency to achieve food security in the context of rapid environmental and socio-economic changes that are occurring; to highlight the critical role of PGRFA in achieving this goal, in particular, by providing farmers with options for adaptation to these changes and ensure necessary productivity increases in an ecological sustainable way; and to use the language of the International Treaty on Plant Genetic Resources for Food and Agriculture, wherever appropriate.
- 12. The consultation suggested specific changes in the introduction (paras. 1-6): to mention the International Treaty and its strengths; to add text on emerging issues such as climate change, trends in food security, niche markets, new technologies, policy environment, the Millennium Development Goals, access and benefit sharing regimes and transfer of technology. A new section was also suggested to refer to implementation achievements and challenges observed since adoption of the current GPA. It was suggested that the last para. (currently 6) should refer to the updated Plan. Some countries suggested revisiting the issue of forestry in the updated plan in the light of emerging issues such as biofuels. No consensus was reached on this suggestion.

### B. Review of the Rationale section of the Global Plan of Action

13. In the subsection on rationale (para. 7) it was proposed to inset in the chapeau emerging issues such as climate change and implementation gaps observed in the first plan and in SOW2. Some countries questioned the use of the word "specifically" in the heading. Some countries proposed to review the term "centres of diversity" in item (b) to add clarity regarding the different views on the geographic distribution of crop diversity; and highlight the implications of most resources being in the developing world. It was further suggested to sharpen the subsection by providing an updated estimate of *ex situ* holdings around the world in item (c); modifying item (e) to be consistent with the chapeau; recognizing progress made since 1996; and emphasizing the fact that PGR issues are more important now than before. Some countries suggested replacing the last sentence of item (f) to provide for continuity. Some countries also argued that there were few sources of funding not many as implied in the current text item (g) and proposed modifying it to refer to "*insufficient*" funding not "*gaps*". Along the same lines some countries suggested to consider re-writing the whole section based on the presentation made on challenges and changes and further suggested to condense and sharpen it in order to have greater impact.

### C. Review of the Aims and Strategies of the Global Plan of Action

- 14. The consultation reviewed the aims of the GPA (para. 9) and agreed that they appear to be appropriate. Suggested changes included: to include (in bullet 2) "economic" development; and also "enhancing the capacity to use the resources for crop improvement". It was further proposed to use International Treaty language (in bullet 3) to introduce "promotion and harmonization".
- 15. On strategies (Para 10) some countries observed that the wording of the whole paragraph did not clearly articulate the strategies thus suggested deleting it all and replacing it with the

Priority Activity Areas. Other countries made suggestions for amendment the current text to—mention in item (a) loss of materials because of inadequate funding leading to increased need for regeneration and collection of new samples and move last sentences to the chapeau; to add in item (d) "crop improvement" or to modify to refer to "development of methods that take account of complementary conservation methods; information sharing and Monitoring and Evaluation (M&E)"; to split item (e) to allow separate attention to CWR; on-farm conservation and farmers and their communities then also include text on incentives for in situ/on-far conservation.

# D. Review of the Structure and Organization of the Global Plan of Action

16. The consultation considered the general structure of the GPA (para. 11-13), as well as the organization of the PAAs. Most countries agreed that the current 4 main groups are still valid. Most countries preferred to retain the current structure with modifications on the way long term and intermediate objectives were stated by suggesting introducing "long term goals and specific objectives". Some countries however, suggested merging the *in-situ* and *ex-situ* sections into one "*Conservation*" section to reflect the importance of integration of these complementary approaches, as also reflected in article 5 of the International Treaty. In addition some countries suggested dropping the section on *linkage* all together because most PAAs are linked to each other anyway.

### E. Review of the Priority Activity Areas of the Global Plan of Action

17. The consultation reviewed the 20 PAAs and provided suggestions to be considered in updating the GPA, as indicated below.

### In situ Conservation and Development

- 18. The consultation recommended that all priority activities are relevant and should be retained, and further confirmed that the gaps and needs summarized from SOW-2 were relevant and appropriately reported in the sections. Cross cutting issues such as climate change and other emerging issues including GMO's are considered important and relevant to all priority activities of the GPA. But the particular importance/impact of climate change on PGRFA *in situ* should be highlighted. It was observed that a subsection on *Research/Technology* is missing in PAA 4, therefore recommended to include it. The subsection should include a paragraph on research on domestication of wild crop relatives and wild plants for food and agriculture as well as capacity for application of new technologies particularly important for *in situ* resources. The particular importance of global change (environmental, social, climate change) on all the priority activities of *in situ* conservation was emphasized to be highlighted. It was also pointed out that incentives for *in situ* conservation need to be highlighted, with particular emphasis on valuation, cost/benefit analysis, and impact assessment of loss of PGRFA.
- 19. Recognizing climate change as cross cutting issue, some countries suggested highlighting it as priority activity area under *in situ* conservation and development; while others suggested that climate change be highlighted and addressed as either a long term or short term objective under PAA 2.

#### PAA 1. Surveying and inventorying PGRFA

- 20. General comments included strong supported to making reference to the International Treaty and use of Treaty language particularly in reference to local and indigenous knowledge etc. Regarding emphasis and preferences, some countries recommended *documentation* to be highlighted in whole GPA; some emphasized the need to refer to "farmer varieties" in text while others suggested farmer's roles to be outlined in this activity and throughout section since the current document tends does not focus on the central role of farmers in *in-situ* conservation. The consultation did not have a clear definition of long and intermediate objectives, therefore there was a tendency to debate placement into long and intermediate. Some countries suggested re-ordering the long and intermediate objectives so that paragraph 16 is long term and paras. 17 and 15 are intermediate; or alternatively, paragraph 17 is long term and paras. 15 and 16 are intermediate.
- 21. Specific suggestions were made in a number of paragraphs. The title was reviewed and most countries confirmed retaining it unchanged, but some suggested adding "documentation" after inventorying while others added "characterization". Some countries noted that there was a gap in para. 14, regarding coordination. They argued that while many surveys and inventories had been completed, they were not coordinated. Therefore, there was a need for coordination of actions with better information management and sharing. Some countries also suggested replacing "rational" with "effective" in para. 14. The consultation found the long term **objectives** still valid. Specific changes were suggested in para. 15 to replace "those species, ecotypes, cultivars and populations of plants relevant to food and agriculture" with "PGRFA" and also delete "if possible" from the French version. Some countries urged that in para. 16 National policy themes should supersede all, while complementary conservation topic is secondary, so suggested having a long term objective that reads "To facilitate the development of national policies related to the conservation and sustainable use of plant genetic resources for food and agriculture" and to move the development of complementary conservation strategies to the intermediate objectives. Most countries confirmed the intermediate objectives with no change; though some suggested adding "access, adoption, improvement, avail, disseminate" after the word "develop" in para. 17. As per the Policy/strategy subsection some countries suggested that it needed to highlight actions for conservation at the national level. Some countries also suggested amending para. 19 to read ".....properly considered and documented". Regarding Capacity, some countries supported the addition of text in para. 20 to capture "recent opportunities to access international funding" and not just leave responsibility to countries. Some also suggested adding "collaboration" to para. 21 in the French version.

### PAA 2. Supporting on-farm management and improvement of PGRFA

- 22. The title was confirmed by most countries although some felt that it was vague and non-technical. The same countries recommended that "participatory breeding" be added after management. Some Francophone countries stated that translation for *on-farm* is not clear and also queried whether one improves *PGR* or *varieties*.
- 23. The **Long-term objectives** were debated with varied opinions. Many countries felt that there were too many elements in the long term objectives and suggested that they be synthesized into a shorter version with some emphasizing that synthesis should capture all ideas already expressed. Other countries supported that any elements that don't fit after synthesis can be

added to the intermediate objectives. However, a few countries felt strongly that the long term objectives be retained unchanged as they were explicit and clear for those less familiar with topic. The consultation recognized the need to highlight "incentives" for farmers and some countries suggested the addition of an objective to cater for incentives. Specific changes suggested by a few countries include deleting "existing" in para. 32 line 208 (English version); changing CBD (line 213) to "International Treaty on plant Genetic Resources for food and Agriculture" then adding "and International Treaty" after FAO Resolution 5/89 (line 211); using a stronger word instead of "realize" (line 210) in reference to Farmers' Rights to highlight the importance of farmer's rights in in situ conservation. It was further suggested to update the objective in light of provisions in the International Treaty; and amending line 215 to read - To encourage traditional seed exchange and supply systems "including community genebanks". Most countries considered the intermediate objectives as valid and a few suggested considering Farmer's rights under intermediate objectives. In reviewing para. 34 in the Policy/strategy subsection some countries stressed that many countries have strategies for conservation in situ – the problem is with their implementation. Further, recognizing the potential impact of GMO's to in situ conservation, a few countries suggested that GMO's and associated research issues should be included in para. 44b.

24. The consultation reviewed the **Research/technology** subsection and observed that although climate change and other emerging issues such as GMO's are cross cutting and considered important and relevant to all priority activity areas; the particular importance /impact of climate change on PGRFA *in situ* should be highlighted. Further, some countries suggested either highlighting climate change as a stand-alone priority activity area under *in situ* conservation and development, or, alternatively, to include as separate paragraph under Research/technology - para. 44. Some countries suggested, under **Coordination/administration** subsection, a review of partnerships to ensure that new partnerships are properly incorporated e.g. Global Crop Diversity Trust (GCDT), World Agroforestry Centre and that already reported partnerships, which are still relevant are duly updated (e.g. in para. 48 - IPGRI now Bioversity International).

#### PAA 3. Assisting farmers in disaster situations to restore agricultural systems

- 25. Some countries indicated the importance of early warning systems under this priority activity; however there was no consensus as to the need and where in the PAA it should be addressed. There will be need to adjust long and intermediate objectives in light of changes to title if it incorporates early warning aspects. Some countries also recognized the need for assessment as a crosscutting issue to all four priority areas with results important for advocacy and policy support rather than just for disaster preparedness. The consultation reviewed the title of the PAA and came up with varied suggestions including amending the title to read "..restore PGR in agricultural systems" or " ..... farmers in disaster situations and climate change" while others wanted developing early warning systems to be reflected in the title.
- 26. The **Long term objectives** were confirmed as relevant by most countries. Specific changes were recommended including to make reference to rural communities rather than peoples and changing "rehabilitation" to "restoration" in para. 51. It was also suggested to make correct the translation in line 495 of the French version. Similarly, there were varied suggestions on the **Intermediate objectives**, including introducing an aspect of monitoring; adding documentation of plant genetic resources at the farm level; highlighting the role of farmers (not only scientists). Some countries also suggested to add "and climate change" in para. 52 –

after "natural disaster"; replacing "ex situ collections" in para. 60 with "germplasm." Some countries disputed the need to qualify disasters such as war, civil strife etc and suggested that reference to "areas affected by disaster" should suffice. A few countries suggested including, in para. 54 in the **Policy strategy** subsection, monitoring and early warning systems as predisaster measures/activities to enhance preparedness. Alternatively, some countries felt that early warning can be covered under capacity to cater for need to develop communities' capacity.

# PAA 4. Promoting *in situ* conservation of wild crop relatives and wild plants for food production

- 27. The consultation observed that sustainability of conservation *in situ* was closely linked to incentives (use, socio economic, cultural). Similarly, some countries observed that integration / complementarities between *ex situ* and *in situ* were not reflected and therefore there is need to ensure that *ex situ* and *in situ* are not working in parallel but together. The consultation further noted that *characterization* of materials is a pre-cursor to implementation of conservation and more emphasis needs to be put on this activity. There is need to know what the material is that is being conserved, particularly on farm, as it changes with management practices. Some countries emphasized the importance of specifying the farmer's role in the whole section; the value of community genebanks was also highlighted.
- 28. Specific suggestions were made in the title and different subsections. Changes suggested by some countries for the title included making reference to "crop wild relatives" instead of "wild crop relatives"; adding "and agriculture" at end of title after "food production" which should be reflected in subsequent sections. However, other countries confirmed the title of the PAA. In the French version, some countries noted that the title though informative is repetitive.
- 29. Some countries wanted changes in the wording of the long term objectives though there was no consensus. Change suggested include deleting "... in protected areas and on other lands etc ...." thus the sentence should end at "food production"; replacing "...promote..." in line 662 in the English version with "ensure"; and adding in para. 66 "in situ conservation". The intermediate objectives were confirmed as relevant. Regarding Policy/strategy some countries noted that policy support for crop wild relatives (CWR) needs to be highlighted as they are not given adequate attention. There is also need to incorporate in line 634 (English) lessons learnt from pilot project on CWR to assist in implementation (applies to all 4 priority activity areas), since there has been progress but more must be done to incorporate and widely disseminate lessons learnt. Some countries went further to recommended highlighting the importance of wild species to local economies in para. 68. Having noted that the **Research/technology** subsection is missing under this PAA some countries proposed creating a new subsection and adding a paragraph on research on domestication of crop wild relatives and wild plants for food and agriculture. Other research components proposed include seed storage, reproductive behaviour etc. Some countries suggested modifying the capacity subsection by adding "manage and sustainably use" to para. 73b.

### Ex Situ Conservation

- 30. The consultation considered the four PAAs under this group and suggested the following three options for changing them:
  - Option 1: merging PAA 5 and PAA 8 and changing the title to: "Sustaining and expanding ex situ collections"
  - Option 2: merging PAA 5 and PAA 6, retaining title of PAA 5;
  - Option 3: to retain existing PAAs but modify PAA8 to cover *ex situ* conservation of non-orthodox (recalcitrant and vegetatively propagated) species only. Reordering of PAAs to reflect a management sequence was proposed (PAA 7, PAA 5, PAA 8, PAA 6).
- 31. It was also suggested that Long-term and Intermediate Objectives be re-arranged to have a broad main objective followed by specific objectives.

### PAA 5. Sustaining existing ex situ collections

- 32. Some suggested changing the title to: "Sustaining <u>and expanding</u> *ex situ* collections or <u>Strengthening</u> *ex situ* collections". Expansion was deemed necessary in light of new and emerging issues like climate change.
- 33. With regard to **Long-term and intermediate objectives** the Consultation suggested adding aspects of supporting countries financially and through capacity building to the 3<sup>rd</sup> long-term objective and support for monitoring viability and health of collections as a new long-term objective. Long-term objective formulation should reflect changes in the title. It was suggested using the long-term objective of PAA 8 "To conserve PFRFA so that they will be available for use" for the merged PAA 5. Reorganizing of long-term and intermediate objectives will be needed. Recognition of, and developing farmers' roles in *ex situ* conservation as well as benefits for farmers should be considered. Objectives should also be updated in the light of the establishment of the GCDT and the entry into force of the International Treaty. The importance of capacity building should be highlighted. The development of core and reference collections should be included.
- 34. In the **Assessment** subsection, a cautionary statement should be added that the increased number of collections stored does not assure their quality. It should be stressed that the loss of genetic diversity continues. Efforts and achievements of the GCDT should be recognized. Mention should be made of the role of botanic gardens. Under Policy and Strategy there should be stronger emphasis on national collections and on the importance of properly documenting indigenous knowledge.

#### PAA 6. Regenerating threatened ex situ accessions

- 35. The Consultation considered keeping the title: Regenerating *ex situ* accessions but adding an explanation for "threatened".
- 36. The **long-term objective** should be broader and changed to: To establish *capacity* for regenerating *ex situ* accessions. It was stressed that regeneration must be carried out timely and continuously. The issue of germplasm health in *ex situ* collections should be incorporated. The intent and meaning of the 2<sup>nd</sup> **Intermediate objective** was not clear to the participants.

Under **Assessment** it should be mentioned that more action at national programme level is needed.

### PAA 7. Supporting planned and targeted collecting of PGRFA

- 37. The Consultation suggested that an explanation for "targeted" is needed and that "planned" should be deleted.
- 38. The Consultation suggested making the **long-term objective** more inclusive by bringing it in line with International Treaty language *To collect PGRFA and associated information prioritizing threatened species*. The **intermediate objectives** should include an aspect of continuity and gap-filling *To ensure greater coverage of diversity through continuously collecting diversity that is missing in collections through targeted and prioritized collecting.* Under **Policy/Strategy**, there is a need to develop "best practice guidelines for collectors" to replace the FAO Code of Conduct where national legislation governing germplasm collecting is absent or weak.

### PAA 8. Expanding ex situ conservation activities

39. The Consultation suggested changing the title to "Expanding ex situ conservation for non-orthodox species" reflecting that this PAA is dealing mainly with the conservation of vegetatively propagated and recalcitrant species. It was proposed that the **long-term objective** be re-written – To develop management strategies for ex situ conservation of vegetatively propagated and recalcitrant seeded plants. Under **Research/Technology** the need for more research on 'non-orthodox species' conservation should be highlighted.

### **Utilization of Plant Genetic Resources**

- 40. In many instances, it was noted that the French version of the GPA does not portray the same meaning as the English version. The consultation suggested referring to "sustainable" utilization of Plant Genetic Resources in the section. The consultation highlighted the need to elaborate in the document on benefit sharing and biological intensification in the light of climate change. Restoration was also highlighted as important activity that should be mentioned in PAA 3. There were concerns about how implementation of the GPA by countries could be made more effective. The consultation noted that the section on use tends to concentrate more on *ex situ* and nothing was said about *in situ* resources. Therefore it was suggested to formulate and activity about the promotion of the use of genetic resources from *in situ* collections.
- 41. Some countries suggested merging PAA 12 and 14, while others suggested putting PAA 13 at the end of the section as PAA 14.

## PAA 9. Expanding the characterization, evaluation and number of core collections to facilitate use

42. The consultation observed that the concept of core collections was not well comprehended and that the emphasis of numbers was not correct. It was therefore suggested that the PAA be reworded to read "Expanding the characterization, evaluation and *further development* of core collections to facilitate use".

- 43. The consultation reviewed the **Assessment** subsection and recommended to highlight the need to improve access to characterization and evaluation data by a wide-range of actors, and also the need for developing descriptors for germplasm characterization for more crops.
- 44. The consultation agreed to keep the long term objectives and the intermediate objectives separate. However, it was emphasized that the long term objectives should be consolidated within one broad sentence and any objectives which do not fit within the sentence, should be included in intermediate objectives. It was suggested to rephrase para. 148 by removing the word "ease", so that the sentence would read "To increase and facilitate use of conserved plant genetic resources". The formulation of the intermediate objective in para. 150 was not seen as an objective. It was suggested that it should be rewritten or be transferred to policy and strategy. In the French version it was noted that the first sentence of para. 152 was a repetition of para. 151, and therefore it should be deleted. In the **Policy/strategy** subsection, it was observed that collecting baseline data is essential meaningful evaluation therefore changes were suggested in para. 153 (a) by inserting the words "Establish baseline data", at the beginning. In the Capacity subsection para. 155, it was argued that "to begin a step-bystep, targeted characterization and evaluation programme for selected priority germplasm" is no longer relevant in the context of the updated GPA, and therefore the phrase should be removed or reformulated. Under Research/technology, it was suggested to add "plant breeding" at the end of para. 160 to highlight the link between evaluation and plant breeding.

#### PAA 10. Increasing genetic enhancement and base-broadening efforts

- 45. The consultation observed that support was needed to intensify enhancement and base-broadening efforts hence suggested to change the PAA text to: "Support genetic enhancement and base-broadening efforts". Equivalent text was suggested in French to read: "Intensifier et renforcer les activités d'amelioration genetique et d'elargissement de la base genetique".
- 46. Some changes were suggested in the French version for the purpose of clarity including reformulation of Line 1967 to avoid redundancy with line 2086; replacement of the word "instituts" by "organismes" in the **Policy / strategy** subsection para. 172; and by institutions in the **Research/technology** subsection para. 174. In para 175, **Coordination/administration**, the consultation highlighted the need to include networking among breeders to allows for sharing community of practices and to exchange ideas.

# PAA 11. Promoting sustainable agriculture through diversification of crop production and broader diversity in crops

47. The consultation suggested that this activity should capture the importance of plant breeding for developing countries and particularly for Africa. The proposed new text reads: "Promoting sustainable agriculture through diversification of crop production, broader diversity in crops and breeding". It was proposed to capture genetic enhancement in Line 2086 in the English version by modifying the sentence to read: "There is an urgent need to increase genetic enhancement and plant breeding capacity worldwide in order to be able to adapt agriculture to meet the rapidly expanding demand for more and different food, as well as non food products, under substantially different climatic conditions from those prevailing today".

48. Changes in the French version included replacement of the word "instituts" by "organismes" in the **Policy/strategy** subsection para. 183; modification of line 2248 to read: "La nécessité de sensibiliser davantage les decideurs".

# PAA 12. Promoting development and commercialization of under-utilized crops and species

- 49. The consultation expressed the need to highlight potentially useful and neglected species because of their importance for food security and poverty alleviation and suggested the title of the PAA to read: Promoting development and commercialization of *potentially useful*, *neglected and* under-utilized crops and species.
- 50. Changes were suggested in para. 192 **Policy/strategy** to add: *In addition foster public private partnerships and put in place legislations to promote benefit sharing*. In para. 193, it was argued that training and capacity building alone is not enough, therefore, it was suggested to reformulate the paragraph to read: "Training, capacity building and *strengthening* for scientists......".
- 51. In the **Research/technology** sub section para.185, it was suggested to remove the word "onfarm" so that it reads: "Support efforts to identify those activities used in plant breeding, plant research and farming systems that foster diversity".

### PAA 13. Supporting seed production and distribution

52. The consultation suggested to modify para. 197 in the **Assessment** subsection by adding "including through community seed banks" at the end. It was further suggested to reformulate para. 204 in the **Capacity** subsection to include the new seed legislation harmonization initiatives at several sub-regional levels in Africa. It should read: "Governments, subject to regional harmonized legislations, national laws, regulations and policies......".

### PAA 14. Developing new markets for local varieties and "diversity-rich" products

53. The consultation proposed to include: "Promote local industry and processing" as an element of the **long-term objective**. It was also suggested to replace the word "primitive" by "traditional" in para. 209 line 2470, and in the French version.

### **Institutions and Capacity Building**

- 54. The Consultation agreed that the SOW-2 was a good basis for updating the PAAs and its subsections. The Consultation also suggested that all PAAs be re-contextualized in the light of new issues such as climate change and the International Treaty.
- 55. As for the overall title of the group of PAAs 15-20, it was suggested to change: "Institutions and capacity building" to "Sustainable institutional and human capacity building".

### PAA 15. Building strong national programmes

56. The group agreed that the title should reflect the need for continuous support both political and financial of the national programmes focused on PGRFA conservation and use (plant genetic resources management and improvement). A tentative synthesis of this could be reflected in the following title: "Building, developing and supporting national programmes".

- 57. Under the long-term objectives, it was suggested to add "participate in global efforts to conserve, *access and* use" (Para. 223). Some participants suggested that para. 224 be reformulated and reorganized with bullets. An additional long-term objective proposed was to ensure a capacity building component within the national programmes.
- 58. With the regard to the Assessment section, insertions from the SOW-2 were considered relevant. Some wording changes were proposed like "long-term storage facilities" to become "long-term conservation facilities" in para. 219. Some participants suggested delete the first and second sentences. The need from the SOW-2 "Many countries still lack national strategies and/or action plans for the management of diversity - or if they have them, they do not fully implement them. Areas that require particular attention include setting priorities, enhancing national and international cooperation, the further development of information systems and identifying gaps in the conservation of PGRFA, including CWR" was considered of particular relevance as well as the need to strengthen capacities for the development of national strategies and action plans for the management of biodiversity. Under Policy/strategy, there was a general agreement on the need to re-contextualize the section in the light of the International Treaty. The impact of changing policies on PGRFA conservation should be assessed and strategies should be adjusted accordingly. "The need for greater awareness among policy makers, donors and the general public of the value of PGRFA, and the importance of crop improvement, in meeting future global challenges" (SOW-2 p.115 b.2) and to incorporate PGRFA activities in the national development agenda were emphasized. The importance of incentives for farmers to maintain and make available local varieties was also highlighted, as well as the need to encourage on-farm conservation within agricultural development programmes.
- 59. National efforts should synergize with regional and international partners. The Consultation also expressed the need to elaborate and implement laws and regulations for PGRFA conservation and utilization. Capacity building component under the national programmes should contemplate adequate development for infrastructures and staff, in particular on new technological developments (molecular tools, GIS, etc.), as well as for farmers, particularly on participatory plant breeding. ABS should be underlined in national programmes in line with the provisions of the International Treaty. Strengthening informal seed systems, including certification and community genebanks should also be considered in the strategy of National Programmes. Text from the SOW-2 "There is a need to strengthen the ability of farmers, indigenous and local communities and their organizations, as well as extension workers and other stakeholders, to sustainably manage agricultural biodiversity" (SOW-2 p. 43, b. 2) was emphasized. Media tools should be largely used in this context.

### PAA 16. Promoting networks for plant genetic resources for food and agriculture

- 60. The consultation proposed either to keep the title as it is or to add the words "and strengthening" after the word "promoting".
- 61. Regarding the **Objectives**, it was proposed to add a reference alto to "*ex situ*" under para. 243 of the GPA or to drop the "*in situ*" one. Some suggested consider the re-localization of some long-term objectives under the intermediate ones (paras. 245 and 246 of the GPA). The promotion of farmers' participation in the networks, especially women, as well as strengthening public and private partnerships should be highlighted.

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<sup>&</sup>lt;sup>1</sup> The French translation should match the English version and use the word "et" instead of "ou".

62. Under **Assessment**, reference about language issues in the coordination and implementation of network activities was made. Under **Policy/strategy**, gaps and needs from the SOW-2 bullets 3<sup>2</sup>, 5<sup>3</sup> and 6<sup>4</sup> (p. 87) were highlighted. With reference to "the need for closer collaboration and coordination, nationally and internationally, especially between the agriculture and environment sectors" (Gaps and Needs from SOW-2, p. 44 b. 4), the interdisciplinarity involving other actors than from agriculture and environment was emphasized. In addition, concern was expressed about the need for sustainable funding. Under **Capacity**, issues related to inter-networks cooperation and information technologies were raised. **Under Research/technology**, the Consultation expressed the idea that the networks are not only a vehicle for implementing collaborative research but also for enhancing synergies and providing comparative advantages. Under **Coordination/administration**, the need to involve NGOs was expressed.

# PAA 17. Constructing comprehensive information systems for plant genetic resources for food and agriculture

- 63. The title of PAA 17 was considered valid by some of the participants; some others suggested to incorporate the concepts of maintenance, strengthening and promotion of the use of the information systems.
- 64. Under the long-term objectives, the Consultation agreed to emphasize the need to periodically update information and databases on a regular basis and to promote application of standards for inter-operability and exchange among systems. Under the intermediate objectives, it was suggested to add "To assemble and periodically update" (Para. 263). Under the Assessment, the issues of accessibility to information as well as capacity were raised. In the **Policy/strategy**, para. 269, reference to the International Treaty was proposed to be added. It was also suggested to highlight the need for the NFPs to commit themselves to keep the data useful, efficient and user-friendly, in synergy with regional and global efforts where relevant. Gaps and needs "There is a need for more accurate and reliable measures, standards, indicators and baseline data for sustainability and food security that will enable better monitoring and assessment of the progress made in these areas. Of particular need are standards and indicators that will enable the monitoring of the specific roles played by PGRFA" (SOW-2 p.200 b.7) was emphasized. Regarding Capacity, the lack of infrastructures and the need for training and promoting the application of standards for interoperability and exchange among systems were emphasized. The Consultation agreed on the need to reformulate para. 270 to specify the facilities referred to, as well as para. 274 to highlight the lack of human resources. Under Research/Technology, the Consultation suggested some wording changes in bullet c) "Provide the necessary means" to replace "Develop means [...]".

<sup>3</sup> "Given that international germplasm exchange is a key motivation behind many networks, additional attention is needed both to promote the effective implementation of ITPGRFA, and in particular its multilateral system of access and benefit sharing, as well as to develop arrangements for those other crops that are not currently included in the system but that are within the overall scope of the ITPGRFA"

<sup>&</sup>lt;sup>2</sup> "While there are still high levels of duplication globally for a number of crops, especially major crops, much of this is unintended and many crops and important collections remain inadequately safety duplicated. The situation is most serious for vegetatively propagated species and species with recalcitrant seeds"

<sup>&</sup>lt;sup>4</sup> "To better serve the management of collections and encourage an increased use of the germplasm, documentation, characterization and evaluation all need to be strengthened and harmonized and the data need to be made more accessible. Greater standardization of data and information management systems is needed"

# PAA 18. Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture

- 65. The title of PAA 18 was considered valid by the majority of the participants; some others suggested to add the words "and/or enhancing" after "developing" and the word "adapted" before "monitoring and early warning systems".
- 66. In the **Objectives**, the Consultation proposed some wording changes in para. 281 "*To contribute* to minimize" and in para. 282 to replace "To determine" with "*To identify*", and to add in the last sentence "To establish *monitoring* mechanisms to ensure that information is *timely* transferred [...]". The need to carry out impact assessments and the need to develop tools and criteria for monitoring genetic loss were both emphasized.
- 67. The Consultation agreed that the **Assessment** section should be re-contextualized in the light of new issues such as climate change, ecosystems shrinkages, industrialization, etc. Some participants suggested some changes in para. 280, in particular, either to delete the first sentence "Various factors, both natural phenomena and the results of human behaviour, including urban expansion, agricultural modernization, civil strife and war, can put plant genetic resources for food and agriculture at risk" or to specify the natural phenomena referred to. Changes from the SOW-2, "There is evidence that more attention is now being paid to increasing the levels of genetic diversity within production systems as a means of reducing risk, particularly in the light of the predicted effects of climate change" (SOW-2 p.43 b.10) and "There has been a substantial increase in awareness over the past decade of the extent and nature of the threats posed by climate change, and of the importance and potential of PGFRA in helping agriculture to remain productive under the new conditions through their underpinning of efforts to breed new, adapted crop varieties" (SOW-2 p.115 b.8) were emphasized. The Consultation proposed to re-contextualise the Policy/strategy section in the light of the new challenges, including the International Treaty. It was also suggested to reformulate para. 284 and the text from SOW-2 "There is a need to promote standard definitions and means of assessing genetic vulnerability and genetic erosion, as well as to agree on more and better indicators, in order to be able to establish national, regional and global baselines for monitoring diversity and changes in it, and for establishing effective early warning systems" (SOW-2 p.20 b.5) to emphasize the need for direct impact assessment. The need to link early warning systems with the information generated by local seed systems and community genebanks; the need to promote standard definitions and means of assessing genetic vulnerability and genetic erosion, as well as to agree on more and better indicators; and the need to involve local communities in the efforts to strengthen farmers' capacities for evaluation of genetic erosion were highlighted. Under Capacity, the need for technical and financial support for building capacities to elaborate indicators was emphasized as well as local communities' role in strengthening farmers' capacities for evaluation of genetic erosion. "The need for greater awareness among policy makers, donors and the general public of the value of PGRFA, and the importance of crop improvement, in meeting future global challenges" (SOW-2 p.115 b.2) was emphasized. The issue of the French translation was also raised for para. 285.5 It was suggested to add the issue of the definition of standards under Research/Technology.

<sup>&</sup>lt;sup>5</sup> "méthodes de rassemblement" should be replaced with "méthodes de collecte".

#### PAA 19. Expanding and improving education and training

- 68. The majority of the participants validated the title of PAA 19 as it is. Some participants suggested to add the words "[...] and training *in PGRFA*"; a minority also proposed to delete the words "Expanding and".
- 69. Under the **long-term objectives**, it was suggested to reformulate para. 295 and in particular, to remove the term "functions" and replace with "activities of collecting", and to highlight the need to encourage all educating institutions to introduce in their programmes training and courses on PGRFA. In the **Intermediate objectives**, it was proposed to delete para. 298. Some wording changes were suggested in para. 296 to delete the word "advanced" and to add the words "... in developed and developing countries *for all PGRFA stakeholders*". It was also proposed to add in para. 297 "... in subjects identified as priorities *nationally and* regionally" and to highlight the need for under-graduate and post-graduate programmes on PGRFA in para. 299.
- 70. The Consultation agreed that the **Assessment** section should be reduced, and that change from the SOW-2, "Overall global plant breeding capacity has not changed significantly; a modest increase in the number of plant breeders has been reported by certain national programmes and a decline by others" (SOW-2 p.114 b.1), should be modified to reflect the fact that plant breeding capacity has decreased in Africa. It was also suggested to emphasize phytosanitary issues as well as the lack of understanding of international agreements and treaties. Under Policy/strategy, SOW-2 gap and need "There is a need to assess human resource capacity and needs in the various aspects of conserving and using PGRFA, and to use this as the basis for drawing up national (and ultimately regional and global) education and training strategies' (SOW-2 p.137 b.5) was emphasized. It was also suggested to reformulate the SOW-2 gap and need "Greater efforts are needed to include the concepts of conservation biology, especially with respect to agrobiodiversity, in biological sciences curricula at all levels" (SOW-2 p.137 b.8) to reflect the need for under-graduate and postgraduate programmes on PGRFA. In Capacity, the need for training in plant physiology, taxonomy, etc. and for promoting understanding of international agreements and treaties were emphasized as well as the need for mentorship programmes in PGRFA. The Consultation agreed that Research/technology section should be improved to highlight the need to involve university students in field activities, especially collecting PGRFA. Under Coordination/ administration, it was proposed to add the words "In addition, advanced programmes should be developed in cooperation with relevant regional academic consortia or associations in the light of the needs assessed at the national level".

# PAA 20. Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use

- 71. The Consultation agreed that all the sections under PAA 20 should be re-contextualized in the light of the new challenges, including climate change, new eating habits, niche markets, HIV-AIDS, etc. The consultation proposed either to keep the title as it is or to add the words "and advocacy" after "promoting public awareness" or "Educating and" before "Promoting".
- 72. In the **Long-term Objectives**<sup>6</sup> para. 314, it was suggested to modify it as follows: "To integrate fully *education*, public awareness, *sensitization and ownership* into all local,

<sup>&</sup>lt;sup>6</sup> The "final objectives" should be corrected and become "long-term objectives".

national, regional and international programme activities *on the importance/value of PGRFA*". Under the **Intermediate Objectives** para. 315, it was also suggested to modify it as follows: "To support *and strengthen* mechanisms, particularly in developing countries, for coordinated public awareness *and advocacy* activities at all levels". Some participants felt that additional intermediate objectives could be added which would lead to the long-term objective.

73. Under **Assessment**, the Consultation agreed that the Changes from the SOW-2 p. 17 b. 2<sup>7</sup> and 38; p. 43 b. 109, p. 86 b. 410 and 511, and Gaps and needs p. 17 b. 212 should be relocated under more relevant PAAs of the GPA. In Policy/strategy, the Consultation agreed to emphasize the need to encourage multinational companies that use genetic resources to participate in public awareness activities. The valorization of local diversity and the need to develop and institutionalize tools and strategies for disseminating PGRFA information were also highlighted. In para. 317, it was proposed to add the words "National strategies should identify objectives and strategies for public awareness, defining target audiences, partners and tools for public outreach but also fostering the development of private-public partnerships". It was also suggested to relocate para. 318 under Capacity and to change "Adequate consideration should be given to production of public awareness materials [...]" to "enhancing the capacity for producing public awareness materials". Under Capacity, the gap and need from the SOW-2 "In the effort to mobilize additional resources for ex situ conservation, greater efforts are needed in raising awareness among policy makers and the general public, of the importance of PGRFA and the need to safeguard it" (SOW-2 p.87 b.9) was suggested to be reformulated by adding a reference to PGRFA utilization. In para. 305 it was proposed to mention phytosanitary issues. The need to strengthen human resources, notably through media, and to train trainers on the evaluation of social, cultural, economic value of PGRFA were also emphasized. Under **Research/Technology**, the gap and need from the SOW-2 p. 44 b. 10 was proposed to be relocated under the *In situ* PAAs. The Consultation also agreed to emphasize the need for information on the social, cultural, and economic value of PGRFA. Concerning Coordination/administration, it was suggested to emphasize the need for partnerships with international companies using genetic resources and for a closer collaboration between FAO and WHO.

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<sup>&</sup>lt;sup>7</sup> Scientific understanding of the on farm management of genetic diversity has increased, and this approach to the conservation and use of PGRFA has become increasingly mainstreamed within national programmes

<sup>&</sup>lt;sup>8</sup> Interest in and awareness of the importance of conserving CWR, both *ex situ* and *in situ*, and its use in crop improvement have increased substantially

<sup>&</sup>lt;sup>9</sup> There is evidence that more attention is now being paid to increasing the levels of genetic diversity within production systems as a means of reducing risk, particularly in the light of the predicted effects of climate change

<sup>&</sup>lt;sup>10</sup> Interest in collecting and maintaining collections of CWR is growing as land-use systems change, concerns about the effects of climate change grow and techniques for using the material become more powerful and more readily available

<sup>&</sup>lt;sup>11</sup> Interest is also growing in neglected and under-utilized crops in recognition of their potential to produce high-value niche products and as novel crops for the new environment conditions that are expected to result from climate change

<sup>&</sup>lt;sup>12</sup> A better understanding of, and support for, farmers' management of diversity is still needed, in spite of significant advances in this area. Opportunities exist for improving the livelihoods of rural communities an essential element of such efforts

### Implementation and Financing of the Global Plan of Action

74. The consultation suggested revising the Implementation and Financing section to include new institutions and mechanisms such as the Global Crop Diversity Trust, the Benefit Sharing Fund of the International Treaty and Climate Change Resource Allocation; require countries to make commitments to support National programmes; and establish an endowment fund to address resources not covered by the Trust and Benefit Sharing Fund.

### Agenda

Day 1 – Wednesday 2 June 2010

8.00 - 9.00	Registration	
9.00 - 9.45	Welcome ceremony	Stefano Diulgheroff, FAO AGP
	FAO	Castro Camarada, Representative in Kenya
		Zachary Muthamia
	KARI	Dan Leskien
	FAO Commission on Genetic Resources for	
	Food and Agriculture	Kent Nnadozie
	International Treaty on PGRFA	Jojo Baidu-Forson
	Bioversity International	
9.45 - 10.00	Introduction of participants	
10.00 - 10.10	Agenda and Objectives	Barbara Pick, FAO
10.10 - 10.30	GPA updating process	Stefano Diulgheroff
10.30 - 10.50	Coffee break	
10.50 - 11.30	Changes in PGRFA conservation and use:	Stefano Diulgheroff
	Challenges for the new GPA	
11.30 - 12.00	Regional Summary	Dan Kiambi, ICRISAT
12.00 - 12.20	Dynamics of working group discussion	Stefano Diulgheroff
12.20 - 13.50	Lunch	
13.50 - 15.30	Working Group session 1	
15.30 - 15.50	Coffee break	
15.50 - 17.30	Working Group session 2	
17.30 - 19.10	Working Group session 3	

Day 2 – Thursday 3 June 2010

8.30 - 10.10	Working Group session 4	
10.10 - 10.30	Coffee break	
10.30 - 12.10	Working Group session 5	
12.10 - 14.00	Lunch	
14.00 - 14.30	Wrap up Sec.I (GPA introductory parts)	Wilson Marandu, Bioversity
14.30 - 15.00	Wrap up Sec.II (in situ and on farm)	Julia Ndungu-Skilton, Bioversity
15.00 - 15.30	Wrap up Sec.III (ex situ)	Herta Kolberg, Bioversity
15.30 - 16.00	Wrap up Sec.IV (use)	Robert Guei, FAO
16.00 - 16.30	Coffee break	
16.30 - 17.00	Wrap up Sec.V (institutions and capacity	Barbara Pick
	building)	
17.00 - 17.30	Closure	S. Diulgheroff;
		Cheikh Alassane Fall, Representative of
		Africa in the Bureau of the FAO Commission
		on Genetic Resources;
		K. Nnadozie;
		Jojo Baidu-Forson

In yellow: Plenary sessions In green: Working groups sessions

### APPENDIX B

**List of Participants** 

### Regional Consultation for Africa: Update of Global Plan of Action on the Conservation and Sustainable Use of PGRFA, Nairobi, Kenya, 2-3 June 2010

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