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 | Organización de las Naciones Unidas para la Agricultura y la Alimentación

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Tenth Regular Session

Rome, 8 – 12 November 2004

COUNTRY PROGRESS REPORT ON THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION AND SUSTAINABLE UTILIZATION OF PLAN GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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1. INTRODUCTION

1. The International Treaty on Plant Genetic Resources for Food and Agriculture (*International Treaty*) affirms that Contracting Parties should promote the effective implementation of the *Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture*[1] (the *Plan*). The *Plan* was formally adopted by 150 countries during the Fourth International Technical Conference on Plant Genetic Resources (Leipzig, Germany, June 1996). The Conference agreed that "overall progress in the implementation of the *Plan* and of the related follow-up processes would be monitored and guided by the national governments and other members of FAO, through the Commission on Genetic Resources for Food and Agriculture"[2].

2. The Commission considered the first progress report on the implementation of the *Plan*, based on country reports, at its Eighth Regular Session. To facilitate the reporting exercise and the analysis of the data, a simplified questionnaire was used for the preparation of the report, which was considered at the Commission's Ninth Regular Session. While the standardized format was well received by countries, its simplicity limited the depth of the analysis and only general conclusions and recommendations could be drawn.

3. At its Ninth Regular Session, "the Commission highlighted the importance of monitoring the implementation of the *Plan* through a country-driven and flexible system that could respond to different and evolving national and regional needs and priorities, while ensuring the necessary level of standardization. (…) In this regard, the Commission supported the establishment, at national levels, of processes to share information among stakeholders on the implementation of the *Plan*, and supported the proposal for a pilot testing phase" for a comprehensive monitoring system of the implementation of the *Plan.* Considering the time frame required for wide adoption of such in-depth monitoring, the Commission "agreed that the surveys in 2003 and 2005 would be carried out on the basis of the methodology currently in use, integrating the lessons learned from the pilot exercises." Following that recommendation, FAO has undertaken a survey using the same questionnaire that was sent in the year 2000 with very minor changes introduced to improve clarity.

4. This document provides an overview of the changes occurred since the last monitoring exercise in the 72 countries that participated in the survey in 2004 covering the period of 2001-2003, and integrates the information from five countries that have completed pilot testing of the comprehensive monitoring system: Cuba, Czech Republic, Ecuador, Ghana and Kenya. Specific guidance from the Commission on this issue is requested in document CGRFA-10/04/5.

2. IMPLEMENTATION OF THE TWENTY PRIORITY ACTIVITY AREAS OF THE PLAN

The Survey

5. To assess progress in implementation of the *Plan,* and following the procedure used in the previous survey, a questionnaire was circulated to 180 National Focal Points, which had been nominated or reconfirmed in 2000 and 2003 by 155 countries[3]. The questionnaire contains yes or no and multiple choice questions, and a tabular approach for assessing existing projects related to

[1] Article 14 of the *International Treaty*.

[2] ITCPGR/96/REP para 21.

[3] Some countries appointed more than one National Focal Point for the implementation of the *Plan.*

plant genetic resources for food and agriculture (PGRFA) in each country, including information on budgets and funding sources.

6. In the year 2000, 108 countries filled out the questionnaire, resulting in a level of participation of 71 per cent. This time, 77 countries participated in the survey, 5 of which through the pilot testing of the new monitoring approach, with a total participation of about 50 per cent. The decrease in the number of countries is evenly distributed among regions. The likely reasons for this decrease are of diverse nature. In the 2000 survey, reports received months after the deadline could still be considered for the preparation of the report. This year, questionnaires received more than a month after the deadline could not be considered for the preparation of this report. In addition, a number of countries are initiating the new comprehensive monitoring approach, or expecting to do so, and some of those may have chosen to participate in future monitoring exercises. The new monitoring approach, which is based on a set of core indicators of implementation of the *Plan*, is expected to provide a better understanding of achievements and trends in all of the *Plan*'s Priority Activity Areas.

7. During its Ninth Regular Session, the Commission "noted that FAO's Medium Term Plan provided for the development of a mechanism to facilitate the implementation of the *Plan* by all stakeholders (...) The Commission recommended that the future development of the facilitating mechanism be guided by the Commission and its Inter-governmental Technical Working Group on Plant Genetic Resources for Food and Agriculture"[4]. The entry into force of the *International Treaty,* and the establishment of the Facilitating Mechanism, will provide new opportunities with regard to the implementation of the *Plan* and may act as catalysts in countries to enhance support and interest in the realization of the objectives agreed in Leipzig eight years ago.

8. For the purpose of this report, statistics and graphics were prepared on the basis of the questionnaires received. Information obtained from five countries that completed the pilot testing of the new monitoring approach required a separate analysis, as the large volume of data, which included hundreds of projects and activities, were not always comparable with the results obtained through the more general survey. Where appropriate, specific mention is made of relevant activities in these countries.

9. This report reflects the structure of the *Plan*, addressing its 20 priority Activity areas under the four thematic groups: *in situ* conservation and development; *ex situ* conservation; utilization of plant genetic resources for food and agriculture; and institutions and capacity-building.

In situ Conservation and Development (Activity areas 1-4)

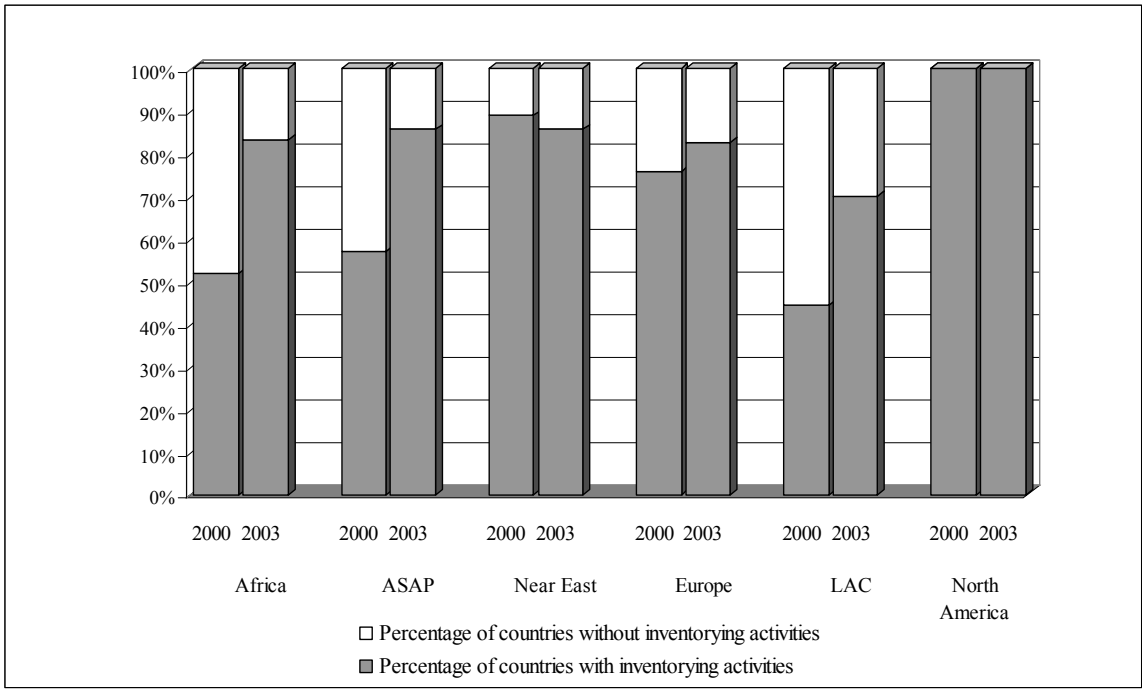
10. *Overview.* There is general improvement in the implementation of all four Activities areas, with some important exceptions. Of note, in this regard, is that in the African region implementation in some Activity areas has not improved, and in fact, has worsened. Countries are giving high priority to inventory activities, funded almost solely by national budgets, while international support tends to concentrate on activities related to on-farm management covering mainly crop improvement in all regions, and improvement of on-farm seed supply in African countries. Promoting conservation of wild crop relatives is receiving increasing attention at the national level in the European, Africa, and Asia and the Pacific regions, with stronger support from donors.

11. *Activity area 1 – Surveying and inventorying plant genetic resources for food and agriculture.* The number of inventory activities reported by countries has steadily increased since 1998. More than 1400 surveys and inventories were carried out since 2001, with 1079 have taken place in India alone. Increases can be observed in all regions with the exception of the Near East, as shown in Figure 1. More than half of the countries participating in the survey, carried out between 1 to 5 surveys and inventories; 7 countries between 15 and 30 surveys and inventories;

[4] CGRFA-9/02/REP

and 17 countries either did not reply to this question, or did not report any activity. Since, 2001, more than 3 000 species, ecotypes or populations were identified as being under threat, with more than 50 per cent of these being found in Europe alone. In 90 per cent of the cases, countries reported that the preparation of the inventory activities involved the development of collaborative linkages among national institutions. These reached only 70 per cent in the previous survey. Similar increases were observed when analyzing linkages of the inventory activities with the national biodiversity plan. More than 95 per cent of the survey and inventory projects reported were funded solely by national budgets, showing the strategic importance of this area.

Figure 1: Survey and inventory activities



12. Training activities in surveying and inventorying took place in 65 per cent of the reporting countries during the years 2001 to 2003, showing an increase of 15 per cent from the previous monitoring period.

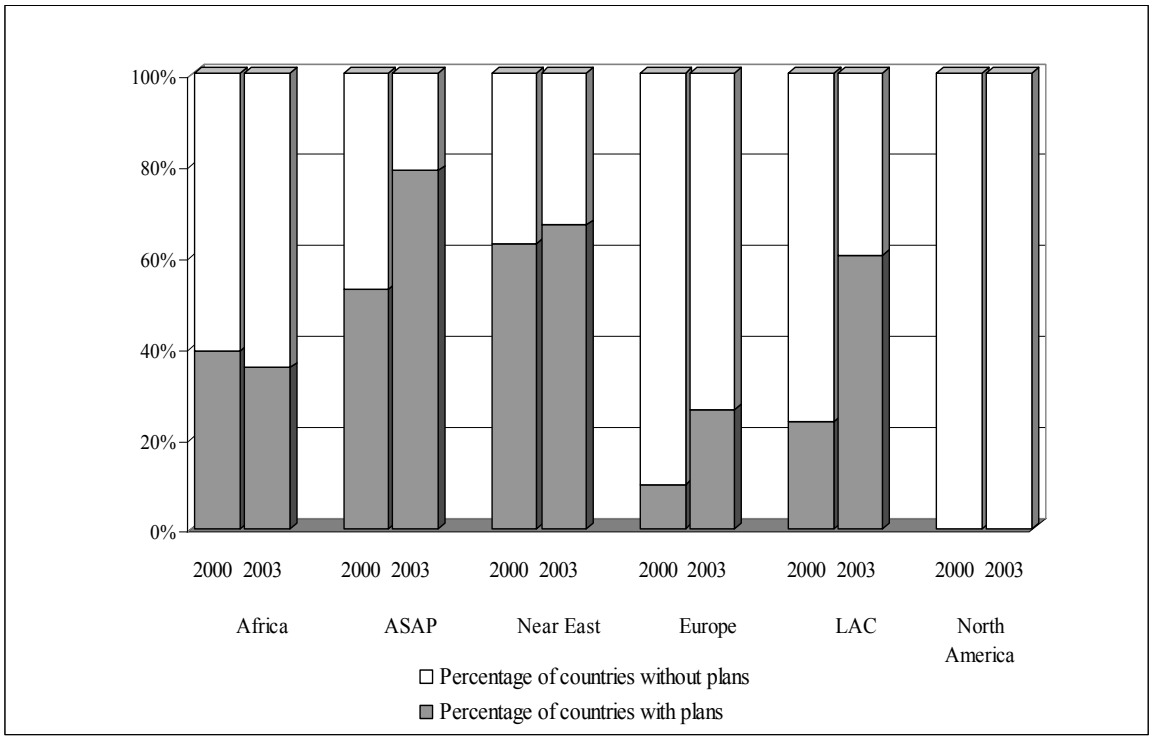
13. *Activity area 2 – Supporting on-farm management and improvement of plant genetic resources for food and agriculture.* The survey indicated a slight increase in the number of projects aimed at supporting on-farm management of PGRFA, reaching 40 projects in 19 countries. More than 80 per cent of the countries reported crop improvement as the main research activity. In Africa, 93 per cent of reporting countries indicated that projects in this area also included on-farm seed production, marketing and distribution activities. Research studies of on-farm management of underutilized crops were prioritized by many countries in European and in the Asia and the Pacific regions. Examples of ongoing projects include, on-farm conservation of sorghum and cowpea in Malawi, utilization of an old rye variety in Austria, participatory management of date palm genetic resources in the Maghreb oases in Morocco, germplasm management of African leafy vegetables in Senegal and *in situ* conservation and breeding of local varieties to improve the quality of maize bread "broa de milho" in Portugal. International support seems to concentrate in this Activity area providing funding for 25 out of 40 reported projects.

14. *Activity area 3 – Assisting farmers in disaster situations to restore agricultural systems.* In the 2000 survey, 32 percent of the countries reported having plans in operation for assisting farmers in recovering/restoring germplasm following disaster situations. This increased in this reporting period to 47 per cent. However, it is important to note that improvement did not occur in

all regions. Most improvements took place in the Asia and Pacific, Latin America and European regions, while the situation worsened in Africa, as illustrated in Figure 2.

15. The trend shown in Figure 2 is mirrored in relation to the establishment of information systems to identify appropriate germplasm for re-introduction after disasters. Significant improvements are reported in all regions, with the exception of Africa where 12 out of the 18 countries reported having no information system in place for this purpose. FAO is implementing an increasing number of projects to assist countries in emergency situations, with more than 400 projects implemented during the reporting period 2001-2003, in all regions.

Figure 2: National plans for assisting farmers to restore germplasm after disaster situations



16. *Activity area 4 – Promoting in situ conservation of wild crop relatives and wild plants for food production.* Fifteen countries, most of them in European and Asia regions, reported 23 internationally supported projects, which had a major focus on the promotion of the conservation of crop wild relatives. The number of countries that have included planning and implementation activities to promote the conservation of wild crop relatives and wild plants for food in their national programmes continues to grow. Increases were observed in Canada, and in more than 80 per cent of reporting countries in the Asia and the Pacific, Africa and European regions. The percentage of countries with *in situ* conservation of wild crop relatives and wild plants for food production is still low in the Latin America and the Caribbean region, with only 60 percent of countries reporting such projects. The involvement of local communities in national activities for the conservation of wild crop relatives and wild plants for food production according to the survey has only increased in the European and Latin America regions, but even in these regions, 40 per cent of the countries reported no participation of local communities in these activities.

Ex situ Conservation (Activity areas 5 – 8)

17. *Overview*. Countries continue to give priority to *ex situ* collection activities, reporting a high number of projects and activities. However, long-term funding for *ex situ* conservation

remains an issue with countries reporting budget cuts and staff reductions. With the exception of the European and the Asia and the Pacific regions, countries reported concerns for their ability to regenerate their collections, especially in the absence of external support. Micro-propagation appears to be the new technology most widely applied for conservation purposes, which is reflected by the large number of projects applying molecular methods for germplasm conservation and characterization.

18. *Activity area 5 – Sustaining ex situ collections.* Countries continue to accord high priority to this Activity area with about 278 projects being implemented in 29 countries. Despite the large number of projects, there was an actual reduction in budgets in more than 40 per cent of reporting countries, with the exception of some western European countries and countries in the Asia and Pacific region, where 70 per cent of countries reported either maintaining or increasing financial resources for *ex situ* collections. The survey indicated a net growth in all regions in the number of species and accessions stored. More than 80 per cent of countries reported that viability and genetic diversity of collections is monitored in all or some of their collections; and that 56 out of a total of 69 countries indicated that cooperative arrangements have been established through regional or crop networks, or with international organizations to conserve accessions from their countries' collections. Training was carried out in 70 per cent of the reporting countries with a net increase in the Near East region since 2001.

19. All of the countries that participated in the pilot testing of the new monitoring approach (Cuba, Kenya, Ghana, Ecuador, and the Czech Republic) reported that one of the main challenges they face is the lack of long-term funding for their main collections, which they currently sustain on the basis of fixed-term projects. This is an issue that needs consideration, since, important species in those collections (e.g. *Passiflora*, and Andean roots and tubers) are not covered by the multilateral system of the *International Treaty*, and therefore may not be eligible for priority funding by the Global Crop Diversity Trust.

20. *Activity area 6 – Regenerating threatened ex situ collections.* Multi-year plans for regeneration, including the establishment of regeneration priorities, are in place in almost all reporting countries in the Asia and Pacific, the European and the Near East regions. However, such plans are only in place in 50 per cent of the reporting Latin American countries and in 60 per cent of the reporting African countries. Regeneration of accessions continues to be an urgent need for 70 per cent of the reporting countries, with progress reported by some countries in the European region. Assistance for regeneration activities through networks, linkages with international organizations, or arrangements with other countries, is indicated by 55 per cent of the reporting countries, although percentages vary among regions from 80 per cent of countries receiving assistance in the Near East to 22 per cent in Latin America. Of the 62 projects addressing this Activity area, only 10 received external financial support. Examples include: regeneration of germplasm of a *Vicia faba* collection in Spain, regeneration of core collections in the Russian Federation, germplasm regeneration for medium-term genebanks in China and regeneration of accessions of 27 species in Cuba.

21. *Activity area 7 – Supporting planned and targeted collecting of plant genetic resources for food and agriculture.* Countries reported some 1579 collecting missions, more than half of which were conducted in Europe. India alone reported 1079 collecting missions in the period 2001 to 2003, four times the number during the previous monitored period. However, 33 per cent of countries in Latin America reported no collecting missions during this period. Analysis showed that of the more than 100 projects reported addressing this Activity area, only 29 focused on targeted species. Most projects reported were funded almost solely from national sources. Examples included collection of, *Cucurbita* spp. in Ghana, traditional peanut varieties in Spain, fonios in Senegal, local vegetable species in Austria, targeted seed collection in Malawi and collection and evaluation of *Avena sativa, Vicia* and *Medicago sativa* in Cyprus. Long-term conservation of accessions collected has been ensured by nearly 85 per cent of the countries in the Asia and Pacific and European regions. The situation is very different in Africa where only 35 per cent of the reporting countries indicate that accessions are secured. Training under this Activity area continues to be carried out in only half of the reporting countries, despite that the *Plan* notes

that collecting missions employing inadequate methodology may not sample diversity successfully.

22. *Activity area 8 – Expanding ex situ conservation activities.* Countries reported establishment of more than one-hundred new botanical gardens, arboreta or field banks, 25 of which were established in African countries. Of these, only 47 were reported as being low-cost. Countries focused on innovative management strategies or improved methodologies for *ex situ* conservation for vegetatively propagated plants and for previously neglected species. Thirty per cent of countries reported that they published information on such technologies during the reporting period. Examples of the activities reported include: the establishment of a cryo-bank to conserve vegetative tips of potato and hops in the Czech Republic; the application of molecular markers for the characterization of the *Triticum durum* collected in Spain, the establishment of a Carob-tree clonal park using *in vitro* propagation in Portugal; the establishment of a national genebank of *Annona cherimola* for use in breeding programs in Peru; and the development of low-cost seed preparation and storage techniques for sorghum germplasm in Sudan.

Utilization of plant genetic resources (Activity areas 9 – 14)

23. *Overview.* Despite significant efforts in characterization in the Asia and Pacific and the European regions, overall investment in characterization of *ex situ* collections remains rather low. It appears that more emphasis is currently given to the establishment of collections, rather than to active utilization. Genetic enhancement and base-broadening activities increased since 2001, resulting from both national and external support. In spite of the potential to enhance the use of locally underutilized or biodiversity-rich products reported by countries, there appears to be inadequate incentives and flexible policy frameworks for commercialization of local varieties and diversity-rich products. There are also reports of increasing difficulties in accessing germplasm, which countries mention as drawback to realizing the objectives of the *Plan*.

24. *Activity area 9 – Expanding characterization, evaluation and number of core collections to facilitate use*. Countries reported very low numbers of accessions that were characterized and evaluated. This ranged from 20 per cent characterized in African countries to 58 per cent in Asia and the Pacific countries. Sixty-four countries reported having a total of about 3 million accessions in their collections, with slightly less than 10 per cent of these accessions being contained within some 130 core collections, in 54 countries. Very few countries reported on the level of characterization of their core collections, and those who did, reported extremely low figures reaching a maximum of 57 per cent in accessions in Europe.

25. Use of molecular methods for characterization has greatly increased in some regions, notably 90 per cent of the European countries and 77 per cent of the countries in Asia and the Pacific now employ molecular methods. Only 28 per cent of the reporting African countries are using molecular methods for this purpose, although this percentage has tripled since the previous survey in 2001. Of the 178 projects reported to address this Activity area, only 28 benefited from external funding.

26. Attention is drawn to the reported low number of accessions characterized and evaluated. The *Global Plan of Action* recalls that poor characterization of accessions leads to the under-use of collections and failure to realise their full value, resulting in high conservation costs in relation to derived benefits. Considering growing budget deficits in long-term conservation for many of those collections, stronger efforts both at national and international level would be required to increase characterization activities and promote their use in plant breeding and other research programmes.

27. *Activity area 10 – Increasing genetic enhancement and base-broadening efforts.* This Activity area showed some promising trends during the last three years. There was a net increase to 40 per cent in the total number of countries reporting to have set priorities and taken action for base-broadening in 2003, reaching 50 per cent in the Asia and Pacific region and 25 per cent of African countries. A total of 47 projects were reported on in the general survey, and in addition, Cuba, Ghana, Kenya, the Czech Republic and Ecuador reported 131 projects focused on genetic

enhancement and base-broadening activities. Project objectives included diversification of both intra-species and inter-species diversity. International funding sources included: the World Bank, the European Union, the Consultative Group for International Agricultural Research, FAO, the International Fund for Agricultural Development, and national cooperation agencies, supporting about 20 per cent of the reported projects. There was a major focus in African countries.

28. Ninety per cent of the monitored countries reported involvement in international crop-related networks, which support genetic enhancement and base-broadening efforts. Specific examples included: a study of bio-morphological diversity of *Gossypium* for the development of synthetic donors and a native phylogenetic system in Uzbekistan; a three-year project on genetic enhancement with national funding of US $1.5 million in China; a project in Germany on evaluation and conservation of barley genetic resources to improve their accessibility to breeders in Europe; and a project on evaluation and utilization of cultivated forms of hulled durum wheat for breeding in Turkey. However, some countries stressed increasing difficulties in gaining access to germplasm, rendering this Activity area more difficult to implement.

29. *Activity area 11 – Promoting sustainable agriculture through diversification of crop production and broader diversity of crops.* As was found in the previous survey, few studies have been undertaken to assess genetic diversity and vulnerability of cultivated varieties. Yet, the majority of countries are taking measures to increase diversity by encouraging diversification of crop production. While no specific information was gathered in the survey on such measures or on main gaps, countries participating in the pilot testing indicated that extensive implementation of large-scale production for agricultural intensification has led to the reduction of local diverse crops which are more suitable for small-scale production. Some of these countries reported that it would be possible to reintroduce some of their original crops (or cultivars) for specific market niches. All of them identified legal obstacles to the release of heterogeneous materials, and a lack of appropriate marketing policies for local heterogeneous varieties as major constraints to achieve this goal. Some countries reported that increasing activities in organic farming are contributing to the diversification of crop production.

30. *Activity area 12 – Promoting development and commercialization of under-utilized crops and species.* Almost 70 per cent of countries reported some activities to promote commercialization of underutilized crops. Yet countries reported a low number of projects focused on this Activity area, similar to previous surveys. Ghana is working on the improvement in the presentation, utilization and promotion of three traditional leafy vegetables (*Amaranthus spp., Corchorus spp*. and *Hibiscus sabdarifa*) for local markets; Kenya reported activities on traditional food crops of the Eastern province; Bambara groundnut selection and variety development was highlighted in Malawi; and Sudan is carrying out a baseline survey of neglected and underutilized species.

31. Some countries indicated a lack of incentives for quality seed production of local varieties and underutilized crops, thus, appropriate policies and marketing incentives may be needed to improve the trend. Sixty per cent of reporting countries indicated that they did not provide training in the reporting period in this Activity area.

32. *Activity area 13 – Supporting seed production and distribution.* In Africa and the Near East, 60 percent of countries indicated having provided incentives such as credit schemes to encourage seed enterprises to meet the needs of the small farming sector. This represents a significant increase from the last survey. In Asia and the Pacific and Near East countries, priorities concentrate on strengthening technical capacity, including that of farmers. More than 85 per cent of countries in Asia and the Pacific region and 70 per cent of the countries in the Near East region reported training activities in seed technology.

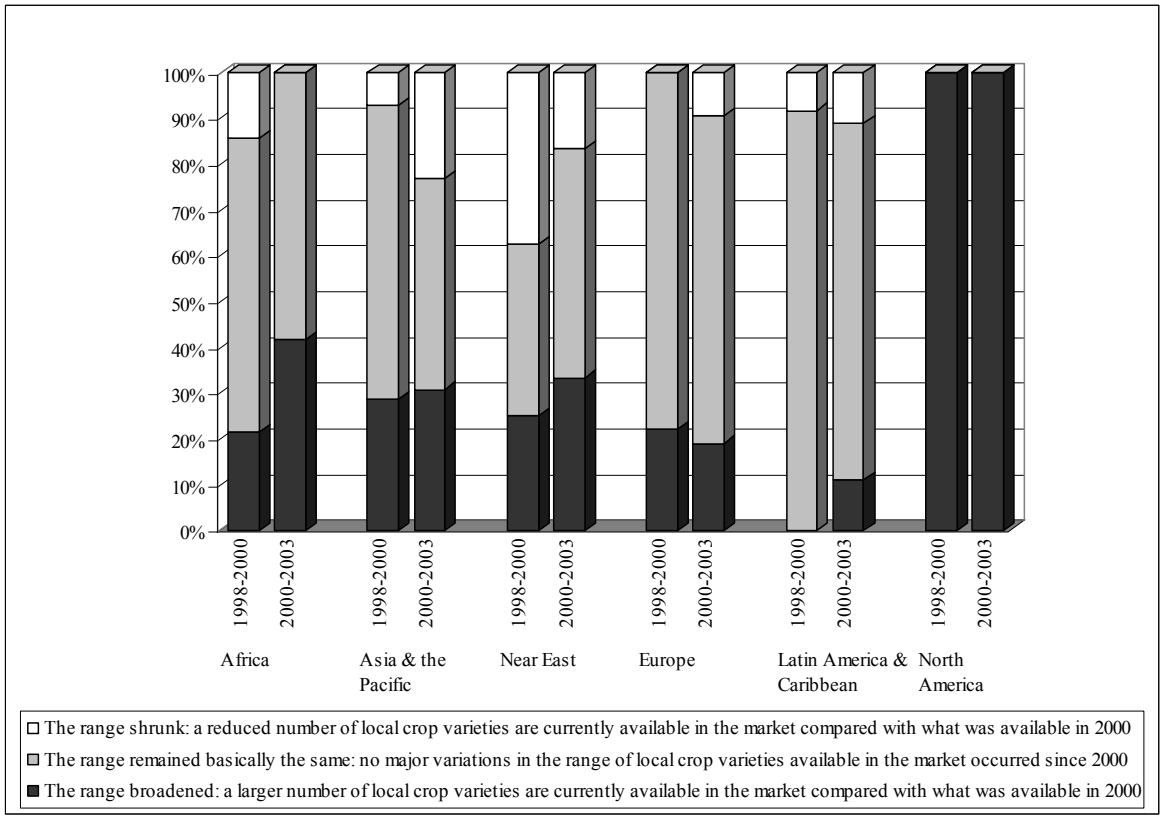
33. Some of the major projects reported in the survey targeting this priority Activity area include: the improvement of primary seed growing methods of commercial and promising varieties in Uzbekistan; grass seed production in conditions of ecological farming in the Czech Republic; seed production from *in vitro* culture of potatoes in El Salvador; seed health technology

transfer to small-holder farmers for increased production of cereals and grain legumes in Ghana; and a survey of traditional seed storage and supply systems in parts of the Suba District in Kenya.

34. In terms of policy measures required to promote quality seed production, countries participating in the pilot testing indicated the need to support expansion of local seed growers' associations, changes in policies to allow the development of community-based seed systems, and stronger linkages with formal seed systems. FAO continues efforts in cooperation with international agencies such as UEMOA, and with donors, particularly with the SADC and in West Africa, toward the harmonization of seed rules and regulations as a means to promote exchange of seeds and other propagating material among countries, and to increase subregional seed trade.

35. *Activity area 14 – Developing markets for local varieties and "diversity-rich" products.* As shown in Figure 3, half of the reporting countries indicated that the range of local varieties and products available in the market have not changed over the last three years, with some relative increases in the African region. Specific examples include: the development of cocoa derivatives for cosmetics, wine and spirits and pulp juice drinks in Ghana; development of training manuals for processing and utilization of traditional and horticultural food crops in Kenya; and diversity of neglected cereals and pseudo-cereals and their utilisation in sustainable agriculture and healthy food in the Czech Republic. Among the incentives to increase markets for local varieties and diversity-rich products, Ecuador mentioned the need for studies on the nutritional and other quality characteristics of these products as a means to promote their use, the application of organic agricultural practices for the cultivation of these products, the promotion of these products in schools, the organization of agricultural fairs, preparation of catalogues, and the strengthening of producers' organizations in this area.

Figure 3: Changes in the range of local crop varieties available in the markets



Institutions and Capacity-building (Activity areas 15 – 20)

36. Despite deep regional differences overall, some progress was achieved in enhancing institutional frameworks and building capacity. There were continuing efforts to build strong national programmes on PGRFA during the reporting period, with legislation being passed on PGRFA access, seed and phytosanitary issues. Assistance for capacity building may be required to help countries in the implementation of new legal frameworks. The important role of networks was recognized by many reporting countries. From the data reported, strengthening some regional and crop networks may be necessary to ensure good coverage of important crops in all regions, particularly in the Near East. Although some progress was observed, much remains to be done to strengthen the development of national information systems on PGRFA. Given the importance of documenting PGRFA, external support will be required to succeed in this endeavour. The need for systems to monitor early genetic erosion, reported in particular by African countries, also needs to be mentioned in this context. Training in this Activity area increased slightly during the current reporting period, although it focused in a few areas. Positive trends were reported in the level of public awareness of the values of PGRFA.

37. *Activity area 15 – Building strong national programmes*. Countries are giving high importance to this Activity area, continuing the positive trend observed in previous reporting periods. Already 80 per cent of reporting countries have developed a national programme for the management of PGRFA and almost all of them incorporated some or all of the priority Activity areas of the *Plan*. With the exception of the African region, there was also a general increase in the number of countries that established an institutional entity, such as a National Committee responsible for the planning and management of PGRFA. The survey indicated that stakeholders are unevenly represented in national committees with breeders and university researchers represented on 80 per cent of the national committees, while farmers and private sector representatives are present in 40 per cent of them. The survey indicates that co-ordination among crop, forest and animal genetic resources programmes was considered in the planning process in 67 per cent of reporting countries.

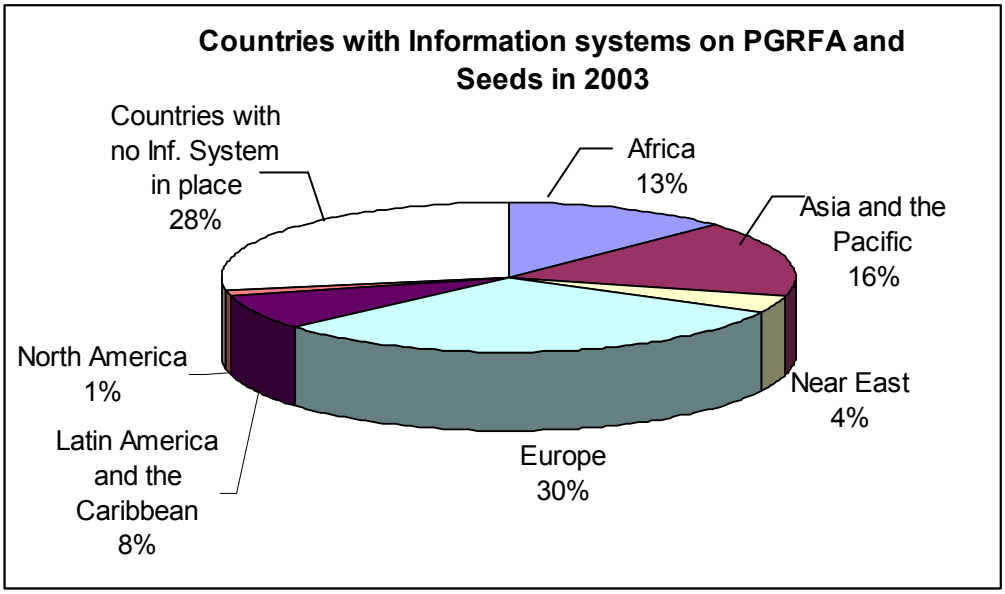
38. With regard to the development of legal frameworks on PGRFA, fifty-four countries ratified, accepted, approved or acceded to the *International Treaty*, which entered into force on 29 June 2004 as a legally binding international agreement. Twenty-one countries enacted legislation on access to PGRFA since 2000, nine of them in Asia and the Pacific region. In addition, 36 countries reported new seed legislation and 42 countries indicated they had passed new legislation on phytosanitary issues during the reporting period.

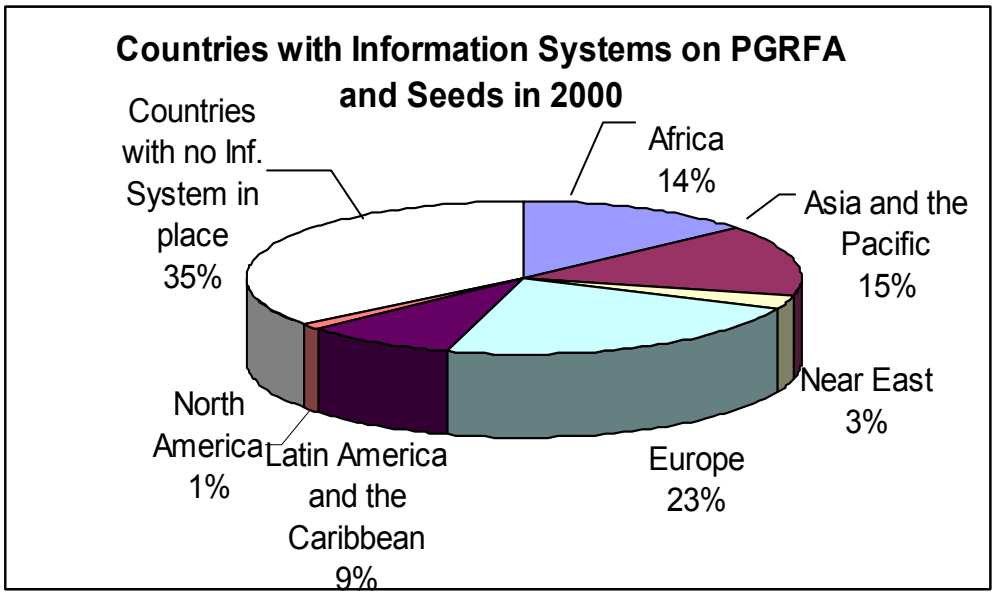
39. *Activity area 16 – Promoting networks for plant genetic resources for food and agriculture.* As in previous surveys, countries continued to recognize the important role that networks play in relation to the conservation and utilization of PGRFA. In this reporting period, 67 countries indicated that they were involved with 225 PGRFA networks, and 69 per cent of them reported providing some financial support to network activities. While participation in networks overall is high, significant variations among regions were observed. Countries in Asia and the Pacific, Africa and Latin America regions, participated actively on average in 2 networks, while in Europe countries on average, were active in 6 networks. In the Near East, the average was less than 1 network per country. The survey suggests that improved organization would ensure that all regions benefit from the activities of effective networks covering crops of local importance. An analysis of the effectiveness in PGRFA networks is provided in the Background Study Paper 23.

40. *Activity area 17 – Constructing comprehensive information systems for plant genetic resources for food and agriculture.* The survey found some progress in this Activity areas with the number of countries that have not yet in place an information system for PGRFA, dropping from 35 per cent in 2000 to 28 per cent in 2003. The improvement however, can be attributed to progress in only European countries, as shown in Figure 4 below. Training on PGRFA information systems has also slightly increased during this period in all countries. Documentation

of PGRFA is essential to promote their use. It is also a basic tool to restore adapted germplasm after disasters. FAO and IPGRI, with the support of donors, are helping countries to establish national information sharing mechanisms on PGRFA developed under the new monitoring approach. Additional support is required for the full implementation of the new monitoring approach as agreed by the Commission at its Ninth Regular Session.

Figure 4. Progress on information systems on PGRFA and Seeds from 2000





41. Activity area 18 – Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture. The development of monitoring systems to assess genetic erosion showed slight improvement from the previous reporting period, increasing from 62 per cent to almost 70 per cent of reporting countries having in place a monitoring system to assess, at least partially, the genetic erosion of their in situ conservation areas. However, significant regional differences were observed. Only about 50 per cent of the African countries reported having a monitoring system in place. Monitoring of ex situ collections also showed

improvement, with almost 80 per cent of countries monitoring the genetic erosion of their collections, although it is to be noted that similar significant regional differences were observed.

42. *Activity area 19 – Expanding and improving education and training.* Training opportunities on PGRFA did not show progress since the previous reporting period. No local advanced training was reported in 20 per cent of the reporting countries, with great variations at regional levels. Seventy-seven percent of the countries stated that they have not yet established a training strategy to support implementation of the priority Activity areas. This was consistent with the survey in 2000. Most training currently appears to be focused on inventory and surveying activities, *ex situ* conservation and characterization. Lesser priority is being given to training with regard to regeneration techniques, collection, and technologies for the promotion of underutilized crops.

43. *Activity area 20 – Promoting public awareness of the value of plant genetic resources conservation and use.* Encouraging progress was observed since the previous survey in the level of public awareness activities undertaken. Almost 20 per cent of the countries reported that public awareness activities are being implemented, with more than 75 per cent of countries indicating that the process of awareness building had been started. Only 5 per cent of countries, instead of the 12 per cent in the year 2000, reported no activities carried out to increase public awareness of the value of PGRFA. Public awareness activities were coordinated in most countries by either a designated organization or by the National Committee on PGRFA. More than 88 per cent of countries indicated that their awareness activities focused on the importance of PGRFA, including the roles of farmers, as part of an overall awareness of biodiversity issues.

3. CONCLUSIONS

44. Based on the survey, a number of conclusions are provided below. Countries confirmed recognition of the *Plan* as the basis for their national PGRFA programmes and plans. Yet the lack of sufficient funding is leading to strong differences among regions in the progress achieved. The entry into force of the *International Treaty* and the establishment of the Facilitating Mechanism for the implementation of the *Plan* might help in reducing regional differences. Additional information on the Facilitating Mechanism is provided in Document CGRFA-10/04/5.

45. There is in general, progress with *in situ* conservation activities, with special emphasis on Activity area 1: *Surveying and inventorying plant genetic resources for food and agriculture,* which is being funded almost solely from national budgets; and Activity area 2: *Supporting on-farm management and improvement of plant genetic resources for food and agriculture*, that has strong international support. Special attention is required concerning the low level of activity reported for Activity area 3: *Assisting farmers in disaster situations to restore agricultural systems* in disaster-prone areas like Africa. The slow progress in the establishment of PGRFA information systems in disaster-prone countries, including documenting local germplasm to restore it after disaster, deserves additional consideration. Wild crop relatives are receiving stronger attention in Europe, Africa and Asia and the Pacific regions with increasing support from donors.

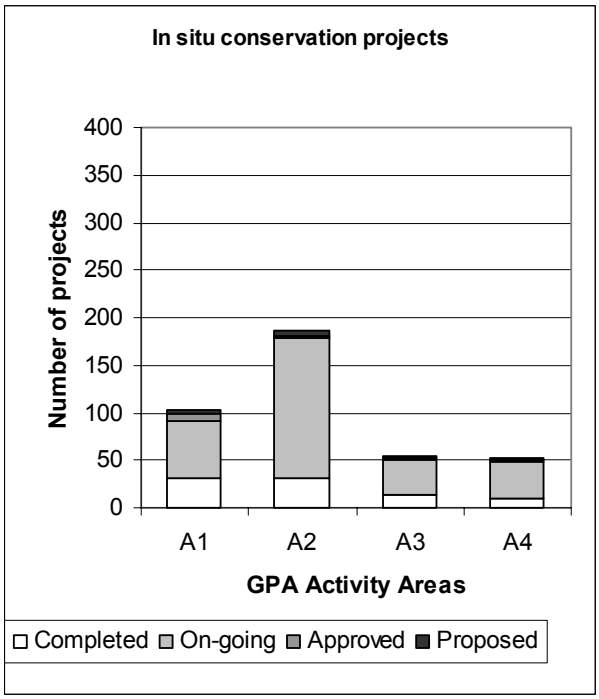
46. The positive trend observed with respect to *ex situ* conservation activities has been maintained and even strengthened. However, long-term funding continues to be a problem with countries indicating budget cuts and staff reductions. The survey clearly indicates that the enhanced attention given to *ex situ* and *in situ* conservation, are not being matched by similar attention to the utilization of the collected PGRFA. Although countries in Asia and the Pacific and European regions report significant attention being given to characterization, the level of characterization of *ex situ* collections is still rather low. Some strategic thinking may be required at national level to address this issue.

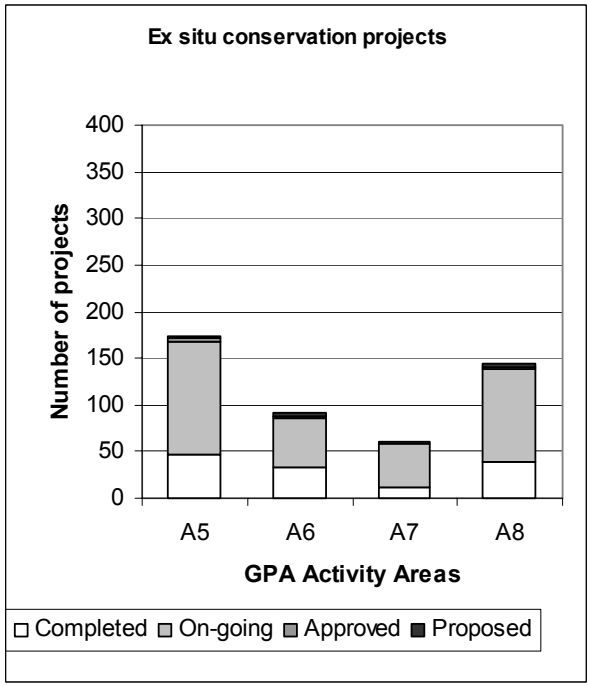
47. With the exception of the European and Asia and the Pacific regions, countries reported concerns for the regeneration of their collections, especially in light of the absence of external support. In this context, the potential role of networks to assist countries on issues that cannot be fully supported at national level, particularly building capacity, should be strongly considered.

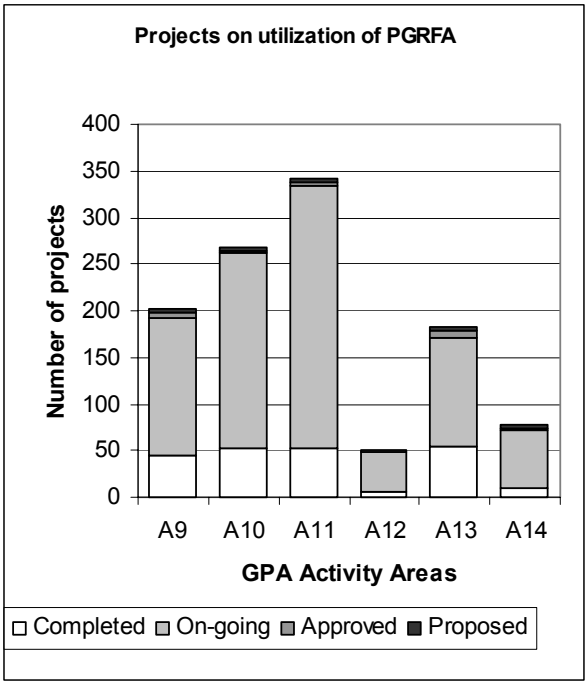
48. *Overview of the projects reported under the pilot testing of the new monitoring approach.* The in-depth information gathered from the five countries that participated in the pilot testing, Cuba, the Czech Republic, Ecuador, Ghana and Kenya, provide interesting insight to some of the Activity areas, which has enriched the analysis contained in this report. It is interesting to note that in the previous monitoring exercise countries reported on average 8 projects per country, increasing in this survey to an average of 12 projects per country. However, for the countries participating in the pilot testing, the number of projects reported reached an average of 167 projects per country. These large increase in reported number of projects demonstrates the value of the participatory and multi-stakeholder approach employed through the new monitoring approach.

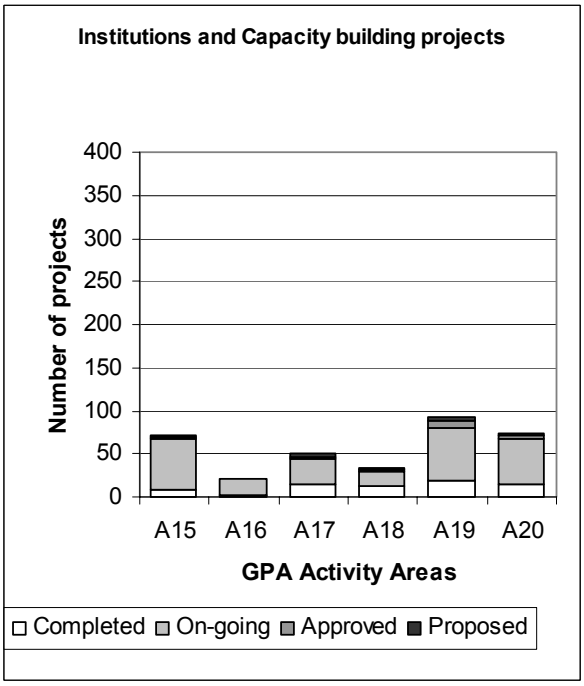
49. In five countries participating in the pilot testing, highest priority was accorded to utilization of PGRFA, and particularly Activity areas 9 to 11, while little activity was reported on institutions and capacity building activity areas, as shown in figure 5. Detailed information on the lessons learnt through the pilot testing is provided in Information Document CGRFA-10/04/inf.4. Application of the new monitoring approach to all countries would improve the depth and relevance of future progress reports on implementation of the *Plan.*

Figure 5: Overview of projects relevant to the priority Activity areas of the *Plan* in countries involved in the pilot testing






Projects on utilization of PGRFA
Number of projects
400
350
300
250
200
150
100
50
0
A9
A10
A11
A12
A13
A14
GPA Activity Areas
Completed
On-going
Approved
Proposed


Institutions and Capacity building projects
Number of projects
400
350
300
250
200
150
100
50
0
A15
A16
A17
A18
A19
A20
GPA Activity Areas
Completed
On-going
Approved
Proposed