

March 2001



منظمة الأغذية  
والزراعة  
للأمم المتحدة

联合国  
粮食及  
农业组织

Food  
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Agriculture  
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of  
the  
United  
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Organisation  
des  
Nations  
Unies  
pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

### Item 3 of the Draft Provisional Agenda

## COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

### WORKING GROUP ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

First Session

Rome, 2 - 4 July 2001

### REPORTING FORMAT FOR MONITORING THE IMPLEMENTATION OF THE *GLOBAL PLAN OF ACTION FOR THE CONSERVATION AND SUSTAINABLE USE OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE*

This document is referred to in para. 5 of CGRFA/WG-PGR-1/01/3. It provides to the Working Group the reporting format proposed for monitoring the implementation of the *Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture*.

The document consists of three parts:

- **Part A** gathers country-wide general information, on certain priority activity areas of the Global Plan of Action (pp. 1-40);
- **Part B** addresses *ex situ* conservation, characterization and evaluation activities (pp. 41-56);
- **Part C** addresses seed production and distribution (pp. 57-65).



## PART A

### REPORTING FORMAT for MONITORING the IMPLEMENTATION of the GLOBAL PLAN of ACTION (GPA) for the CONSERVATION and SUSTAINABLE USE of PLANT GENETIC RESOURCES for FOOD and AGRICULTURE (PGRFA)

The present questionnaire consists of three parts. Part A of this questionnaire covers country-wide general information on some priority activity areas of the GPA. It should be completed by the National Focal Point for the implementation of the GPA in consultation with stakeholders. Parts B and C address different activity areas of the GPA, PGRFA *ex situ* conservation, characterization and evaluation activities, and seed production and distribution, respectively. Please ensure that they are completed by the appropriate person(s)/ institution(s) as indicated at the top of each part. On behalf of all those who are participating and contributing to this monitoring process and those who will benefit from the knowledge derived from it: thank you.

Country:
Title and name of person completing the questionnaire:
Position:
Institute:
Date of completion:

Please return the completed questionnaire to: Plant Genetic Resources Group, AGPS  
Plant Production and Protection Division, FAO  
Viale delle Terme di Caracalla 00100 Rome, Italy  
Fax: (+390657056347) E-mail: [WIEWS@fao.org](mailto:WIEWS@fao.org)

## 1. Programmes and projects addressing GPA's priority activity areas

1.1. Please list PGRFA programmes and projects presently carried out in the country addressing GPA's priority activity areas, their current operational status, geographical focus, responsible/executing institution, total budget and correspondent currency, funding source, start and end date, and which of the GPA's priority activity areas are addressed.

**Table 1. PGRFA programmes and projects addressing GPA's priority activity areas.\***

PGRFA programme/ project	Status (1)	Geo-graphical focus (2)	Responsible/executing institution	Total budget (3)	Funding source	Date		GPA's priority activity areas addressed (4)
						Start	End	

(1) **P**=Proposed; **A**=Approved; **O**=On-going; **C**=Completed; other (specify); (2) **N**=National; **R**=Regional; **I**=International; other (specify); (3) Specify the currency used.

(4) Fill in this column with the activity(ies) corresponding number(s) only. **1.** Surveying and inventorying plant genetic resources for food and agriculture; **2.** Supporting on-farm management and improvement of plant genetic resources for food and agriculture; **3.** Assisting farmers in disaster situations to restore agricultural systems; **4.** Promoting *in situ* conservation of wild crop relatives and wild plants for food production; **5.** Sustaining existing *ex situ* collections; **6.** Regenerating threatened *ex situ* accessions; **7.** Supporting planned and targeted collecting of plant genetic resources for food and agriculture; **8.** Expanding *ex situ* conservation activities; **9.** Expanding the characterization, evaluation and number of core collections to facilitate use; **10.** Increasing genetic enhancement and base-broadening efforts; **11.** Promoting sustainable agriculture through diversification of crop production and broader diversity in crops; **12.** Promoting development and commercialization of under-utilized crops and species; **13.** Supporting seed production and distribution; **14.** Developing new markets for local varieties and "diversity-rich" products; **15.** Building strong national programmes; **16.** Promoting networks for plant genetic resources for food and agriculture; **17.** Constructing comprehensive information systems for plant genetic resources for food and agriculture; **18.** Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture; **19.** Expanding and improving education and training; **20.** Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use.

\* All the tables in the reporting format can be adjusted by adding new rows or deleting existing ones, as needed. Any change in the structure of the tables, in particular the addition of new columns should be avoided.

## ***In Situ* Conservation and Development**

### **Activity Area 1. Surveying and Inventorying Plant Genetic Resources for Food and Agriculture**

Under this activity, countries are to identify, locate, inventory, and as feasible, assess any threats to those species, ecotypes, cultivars, and populations of plants relevant to food and agriculture, especially those that are of anticipated use. This activity can facilitate the development of complementary conservation strategies (balancing *in situ* and *ex situ* conservation) and national policies on PGRFA. Useful methodologies for surveying and inventorying PGRFA also require development.

A.1.1. Please list any PGRFA survey and/or inventory carried out in the country since 1995, specifying the responsible and participating institution(s), the surveyed/inventoried area, species/ecotypes/populations (if any) under threat, cause of threat, methodologies used and comments on major findings.

**Table 1.1. National PGRFA surveys and/or inventories.**

Survey/Inventory description/title	Dates when survey started and completed	Responsible and participating institution(s) (1)	Surveyed/Inventoried area (2)	Threatened species/ecotypes/ populations	Threatening cause (3)	Methods used for surveying	Comments on major findings (4)

(1) To differentiate responsible from participating institutions, please underline the coordinating institution.

(2) Specify the location of the surveyed/inventoried area and its size.

(3) For each threatened species, ecotype and/or population mentioned, please explain the causes of threat and whether these are either supposed or proven. Mark supposed causes with an asterisk.

(4) Please comment on major findings (e.g. bio-diversity rich areas found) as well as mention any new/innovative methodology used for surveying intra- and inter-specific diversity.

A.1.2. Are Geographic Information Systems (GIS) used to support genetic resources surveys/inventories? YES / NO (please circle)

A.1.3. Were collaborative linkages between other groups and Ministries (e.g. agriculture, forestry or environment Ministries, nature conservation groups, botanical gardens, extension, farmers' groups or others) developed in preparing the surveys/inventories? YES / NO (please circle)

A.1.4. Are the surveys/inventories linked with a National Biodiversity Action Plan, or other initiative? YES / NO (please circle)

A.1.5. Has training been undertaken since 1995 in areas related to surveying and inventorying (taxonomy, population biology, ethnobotany, eco-regional and agro-ecological surveying, and GIS training)? YES / NO (please circle)

A.1.6. If it applies, please indicate in Table 19.1 under Activity Area 19, how many women and men were trained since 1995 in the above areas, and indicate the level of training (informal, technical short course, master's degree, etc.).

A.1.7. Please list all priority geographical areas of the country which require surveying/inventorying for PGRFA, providing a priority ranking and indicating major threats to PGRFA in each area and urgency for action.

**Table 1.2. Priority areas of the country to survey/inventory for PGRFA and major threats in these areas.**

Priority areas to Survey/Inventory for PGRFA	Priority ranking (1)	Major threats to PGRFA in the priority area

(1) 1=High; 3=Medium; 5=Low

A.1.8. Please rate the adequacy of your national efforts to survey and inventory PGRFA. (Check the one box which best applies)

- Surveys and inventories have taken place for all priority areas of the country
- Surveys and inventories are planned or on-going for all priority areas of the country
- Priorities have been established but priority areas have not been adequately surveyed and inventoried
- Areas have not been prioritized for survey and inventories
- Other (please specify) .....

A.1.9. Please indicate the greatest constraint(s) to inventorying/surveying PGRFA in the country.

- Insufficient financial support to conduct surveys and inventories
- Insufficient number of staff to carry out the surveys and inventories
- Staff do not have sufficient skills to carry out the necessary surveys and inventories
- National priorities for survey and inventories have not been established
- It is not clear which organization has the responsibility to carry out surveys and inventories
- Other (please specify) .....

A.1.10. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## **Activity Area 2. Supporting On-farm Management and Improvement of Plant Genetic Resources for Food and Agriculture**

The diversity of plants used and maintained by local peoples and farming communities varies greatly among countries and ecosystems within countries. It is now recognized that supporting farmers to manage and improve that diversity and assisting farmers to replace diversity which has been lost, can in certain areas, combine the objectives of conservation and development.

A.2.1. Please indicate the extent to which on-farm management of PGRFA has been addressed within the country. (Check the one box that best applies)

- ( ) On-farm management of PGRFA is well integrated into all of our programmes  
 ( ) On-farm management of PGRFA is somewhat integrated into our programmes  
 ( ) On-farm management of PGRFA has not been integrated into our programmes  
 ( ) On-farm management of PGRFA is not a priority within our national programme  
 ( ) Other (please specify) .....

A.2.2. In Table 2.1. below, please list programmes, local farmer communities, number of farmers, which were involved in on-farm management and improvement of PGRFA in 1995 and/or at the present time.

**Table 2.1. On-farm conservation programmes/projects, dynamics of local farmer communities involvement in PGRFA management and improvement.**

On-farm conservation programme/project (1)	Local farmer community involved	Number of farmers involved in PGRFA on-farm management and improvement	
		1995	2001

(1) Note that all programmes listed under this table should also be included under Table 1.



A.2.3. Please indicate in the following table any activity(ies) carried out in the country to increase the value of PGRFA and to promote on-farm management and improvement of PGRFA.

Activity to increase value of PGRFA	Used to promote on-farm management and improvement of PGRFA		
	regularly	occasionally	never
Participatory breeding			
Participatory selection			
Diversity fairs and seed exchange			
Market development			
Processing and packaging			
Strengthening local seed supply			
Raising public awareness			
Community-based research			
Other (please specify)			

A.2.4. Please indicate which incentives exist in the country to promote on-farm management of PGRFA. (Check all that apply)

- Extension services to support farmers in on-farm management
- Research to support on-farm management
- National policies to support on-farm management
- Government incentives to farmers to encourage on-farm management
- Seed production and distribution services to support on-farm management
- Other (please specify) .....

A.2.5. Are socio-cultural factors being incorporated into the design and implementation of agricultural research and plant genetic resources activities? YES / NO (please circle)

A.2.6. Please indicate the extent to which the following multidisciplinary research activities are incorporated into on-going programme/project.

Multidisciplinary research activities	Incorporated into on-going programmes/projects			
	Always	Often	Sometimes	Never
Ethnobotanical research				
Socio-economic research				
Population and conservation biology				
Crop improvement research				
Seed production, marketing and distribution				
Research and extension studies for little known crops				

A.2.7. Please indicate the greatest constraint(s) to on-farm conservation of PGRFA in the country.

- ( ) Insufficient financial support to conduct research on on-farm conservation      ( ) Insufficient number of staff to support on-farm conservation  
 ( ) Staff do not have sufficient skills to implement on-farm conservation projects      ( ) On-farm conservation is not a national priority  
 ( ) Farmers do not have adequate incentives to conserve PGRFA on-farm  
 ( ) Other (please specify) .....

A.2.8. Since 1995, has training in facilitating, improving and catalysing on-farm plant genetic resources activities been undertaken?  
 YES / NO (please circle)

A.2.9. If it applies, please specify in Table 19.1 under Activity Area 19, courses and number of biological scientists, social scientists, extension agents and farmers trained.

A.2.10. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

**Activity Area 3. Assisting Farmers in Disaster Situations to Restore Agricultural Systems**

Across the world, people are threatened by natural disasters, civil strife and war. Such disasters can result in loss of unique and locally adapted seeds and planting materials, seriously impairing the productivity and sustainability of agricultural systems. This activity calls for a new initiative to establish capacity to deliver planting materials of adapted local varieties to areas affected by such disasters.

A.3.1. Is there any plan in operation in the country for assisting farmers in recovering/restoring germplasm following disaster situations?  
 YES / NO (please circle)

A.3.2. If it applies, please complete Table 3.1 below by providing the full name of the plan(s), its(their) start date(s), coordinating and participating institution(s) and a brief description.

**Table 3.1. Plan(s) in operation for assisting farmers in recovering/restoring germplasm following disaster situations, date of enforcement, coordinating and participating institutions and brief plan description.**

Full Name of the Plan	Start Date	Coordinating Institution and Participating Institutions (1)	Description

(1) To differentiate coordinating institution from participating institutions, please underline the coordinating institution.

A.3.3. Has the country reintroduced PGRFA following disaster since 1995? If so, please complete the following table including each instance where PGRFA was reintroduced.

**Table 3.2. PGRFA reintroductions since 1995 following disaster situations.**

Date of disaster (month/year)	Type of disaster (1)	Date materials were reintroduced (month/year)	Species/Varieties reintroduced	Source of PGRFA material (2)

(1) select from the following list: (A) Flood; (B) Fire; (C) Typhoon or hurricane; (D) Drought; (E) Civil war; (F) International war or conflict; (G) Other (please specify)

(2) select from the following list: (A) National genebank; (B) Regional genebank; (C) International genebank; (D) Farmers; (E) Commercial supplier; (G) Other (please specify)

A.3.4. Is there any operating information system to identify appropriate germplasm for re-introduction after disasters? YES / NO (please circle)

A.3.5. If it applies, please complete Table 17.1. under Activity Area 17 with data regarding the information system in use to identify appropriate germplasm for re-introduction after disasters.

A.3.6. Please comment on existing or foreseen mechanisms to facilitate rapid acquisition, multiplication, restoration and provision of planting materials within the country and to/from other countries.

A.3.7. Please indicate the greatest constraint to restoration of PGRFA following disasters in the country. (Check one that best applies)

- |  |  |
|--|--|
| <input type="checkbox"/> PGRFA were not inventoried nor collected before the disaster occurred                               | <input type="checkbox"/> Insufficient seed/planting materials availability       |
| <input type="checkbox"/> The country does not have sufficient access to germplasm that could be restored following disasters | <input type="checkbox"/> Insufficient number of staff                            |
| <input type="checkbox"/> Staff do not have sufficient skills to restore PGRFA following disasters                            | <input type="checkbox"/> Insufficient financial support                          |
| <input type="checkbox"/> Disaster response is not a priority within the national programme for PGRFA                         | <input type="checkbox"/> The country does not have a high incidence of disasters |
| <input type="checkbox"/> Other (please specify) .....  |  |

A.3.8. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

**Activity Area 4. Promoting *in situ* Conservation of Wild Crop Relatives and Wild Plants for Food Production**

Wild and weedy crop relatives and wild plants for food production are valuable genetic resources for food and agriculture. These species must be retained *in situ*, within natural ecosystems to ensure dynamic evolution of adapted forms of genetic diversity. This activity is aimed at conserving wild crop relatives and wild plants for food production in protected areas, and on other lands not explicitly listed as protected areas.

A.4.1. How is the country addressing the conservation of wild crop relatives and wild plants for food production? (Check the box that best applies to your situation)

- Plans have not been developed for *in situ* conservation of wild plants and wild crop relatives in the country
- Plans have been developed for *in situ* conservation of wild plants and wild crop relatives, and some activities have been implemented
- Plans have been developed for *in situ* conservation of wild plants and wild crop relatives and activities are well underway
- Activities are underway for *in situ* conservation of wild plants and wild crop relatives, but are not within the context of a national plan
- Other (please specify) .....

A.4.2. Please list in the table below wild relatives of crop plants and wild plants for food production which have been identified for *in situ* conservation, the criteria adopted for their identification, local communities, if any, which are involved in these conservation activities, and the activity coordinating institution.

**Table 4.2. Wild crop relatives and wild plants for food identified for *in situ* conservation, identification criteria, identified areas for their preservation and local communities involved.**

Wild crop relatives and wild plants for food identified for <i>in situ</i> conservation	Criteria used to identify these	Identified areas for preservation	Local communities involved	Coordinating and participating institutions (1)

(1) To differentiate coordinating institution from participating institutions, please underline the coordinating institution.

A.4.3. Have reviews been conducted to identify which management practices are needed to protect the desired level of genetic diversity for these species? YES / NO (please circle)

A.4.4. Please describe specifically how local communities have been assisted to document and manage wild crop relatives and wild plants for food production.

A.4.5. Please comment on other measures that have been undertaken to support local communities to conserve, and use these species.

A.4.6. Please describe any arrangements that have been made to place threatened diversity of wild crop relatives and wild plants for food production into *ex situ* storage.

A.4.7. In many countries, Environmental Impact Assessments (EIAs) must be carried out before activities resulting in land use changes can be approved. To what extent do EIAs in the country incorporate an assessment of the likely effect of land use decisions on wild crop relatives?

- Wild crop relatives must be considered in all EIAs
- Wild crop relatives are considered in some EIAs
- Wild crop relatives are not usually considered in EIAs
- Wild crop relatives are never considered in EIAs
- National policy does not require that EIAs be conducted in my country
- Other (please specify) .....

A.4.8. To what degree does national policy support the conservation of wild crops relatives? (Please check the one that best applies)

- Specific national policies are in place to support conservation of wild crop relatives
- National policy is supportive in general, although specific policies do not exist for wild crop relatives
- National policy does not support the conservation of wild crop relatives
- National policy is in conflict with efforts to conserve wild crop relatives
- Other (please specify) .....

A.4.9. Please comment on any other policy changes being considered/enacted in the country that may affect the conservation of wild relatives of crops and wild plants for food production (e.g. including the conservation of PGRFA as an objective of national policy that includes all stakeholders to guide management of protected areas according to national rules and regulations).

A.4.10. Please comment in the box below on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## Utilization of Plant Genetic Resources

### Activity Area 9. Expanding the Characterization, Evaluation and Number of Core Collections to Facilitate Use

In country reports, lack of characterization and evaluation is cited as a major constraint to the use of plant genetic resources in breeding programmes. This activity is aimed at giving high priority for characterization and evaluation programmes; adopting new technologies that can make characterization and evaluation more effective; and development of core collections for crops of both global as well as national importance.

A.9.1. Have core collections been developed in the country for globally or nationally important crops? YES / NO (please circle)

A.9.2. If this applies, please list them in the table below.

**Table 9.2. Size and location of crop core collections.**

Crop/species	Date of establishment	Number of accessions	Location(s)

A.9.3. Please indicate which obstacles exist to establishing core collections in the country. (Check the one response that best applies)

- |  |  |
|--|--|
| <input type="checkbox"/> Lack of financial resources to establish core collections<br><input type="checkbox"/> Lack of facilities to establish core collections<br><input type="checkbox"/> Lack of access to germplasm as needed to establish core collections<br><input type="checkbox"/> Other (please specify) ..... | <input type="checkbox"/> Lack of staff skills to establish core collections<br><input type="checkbox"/> Lack of policy support to establish core collections |
|--|--|

A.9.4. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.



### **Activity Area 10. Increasing Genetic Enhancement and Base-broadening Efforts**

Broadening the genetic base of crops can contribute to their stability and performance. However, such efforts are long term, and benefits may not be realised in the short term. Base-broadening can include either introgression of specific genes or useful traits or incorporation of a wide array of genetic diversity into adapted or elite varieties.

A.10.1. Have the needs and opportunities for base-broadening in the country been assessed and activities initiated?

	1995	2001
<b>Yes, priorities set and activities underway</b>		
<b>Yes, initial efforts started</b>		
<b>No</b>		

A.10.2. Please list under Table 1 (in the first page of this questionnaire) all programmes/projects providing funding and support to pre-breeding, genetic enhancement and base-broadening activities.

A.10.3. Please list crop species, varieties, objectives and duration of pre-breeding, genetic enhancement and base-broadening activities, grouped by programme/project (note that all programmes/projects listed in the table hereunder must also be listed under Table 1).

**Table 10.1. Crop species, varieties, objectives and duration of pre-breeding, genetic enhancement and base-broadening activities, grouped by programme/project.**

<b>Programme/Project</b>	<b>Crop species</b>	<b>Variety</b>	<b>Objectives</b>	<b>Duration (months)</b>

A.10.4. If the country is involved in international crop-related networks which support genetic enhancement and base-broadening efforts please list them under Table 16.1.

A.10.5. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

### **Activity Area 11. Promoting Sustainable Agriculture through Diversification of Crop Production and Broader Diversity in Crops**

Genetically uniform crops carry increased risk of genetic vulnerability. This activity is aimed at monitoring genetic vulnerability of crops, and promoting higher levels of genetic diversity, both within and among crop varieties, as well as a greater diversity of crop species.

A.11.1. Has an assessment been made of the genetic uniformity and vulnerability of crop production in the country?

YES / YES, IN PART / NO (please circle)

A.11.2. If an assessment has been conducted, please provide details below.

**Table 10.2. Assessments of the genetic uniformity and vulnerability of crop production carried out in the country.**

Date of assessment	Crop focus	Agro-ecological zone focus	Degree of genetic uniformity found (1)

(1) Please specify: (A) Very high uniformity; (B) Moderately high uniformity; (C) Moderate uniformity; (D) Moderately low uniformity; (E) Low uniformity

A.11.3. Please explain which measures are being taken in the country to encourage diversification of crop production and favour broader diversity of crops (e.g. increase the use of mixtures and/or a range of varieties).

A.11.4. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## **Activity Area 12. Promoting Development and Commercialization of Under-utilized Crops and Species**

While a small number of species provides a large portion of global food needs, hundreds of other species are utilized at a local level, either through cultivation or harvesting from the wild. While many under-utilized plants have potential for more widespread use, current programmes for conservation, research and development tend to neglect these species. This activity is aimed at the development of appropriate conservation strategies and sustainable management practices for under-utilized species, to improve selected species, and improve the marketing of these under-utilized crops.

A.12.1. Please complete Table 12.1. on the status of under-utilized crop development in the country:

**Table 12.1. Status of implementation of activities related to under-utilized crop development in 1995 and at present.**

		<b>1995</b>	<b>2001</b>
<b>Identifying potential under-utilized species</b>	Activities completed		
	Activities well advanced		
	Some activities initiated		
	Activities planned but not initiated		
	No activities planned		
<b>Developing and implementing sustainable management practices and crop improvement for selected under-utilized species</b>	Activities completed		
	Activities well advanced		
	Some activities initiated		
	Activities planned but not initiated		
	No activities planned		
<b>Developing post-harvest processing methods</b>	Activities completed		
	Activities well advanced		
	Some activities initiated		
	Activities planned but not initiated		
	No activities planned		
<b>Developing marketing methods</b>	Activities completed		
	Activities well advanced		
	Some activities initiated		
	Activities planned but not initiated		
	No activities planned		

A.12.2. Please indicate to what degree the role of women was considered in developing management strategies for these crops. (Please check the box that best applies)

- Women farmers always participate fully in developing strategies for under-utilized crops  
 Women farmers are surveyed/consulted to gather their perspectives  
 Women farmers participate in conducting their own research with under-utilized crops  
 Women's perspectives are considered but women are not directly consulted  
 Women's perspectives are not usually considered in developing strategies for under-utilized crops  
 Women are not normally involved in growing under-utilized crops  
 Other (please specify) .....

A.12.3. Please check any of the following institutions that have been involved in developing strategies or managing under-utilized crops in the country:

- Regional networks (please specify) .....  
 Crop networks (please specify).....  
 International/Regional organizations (please specify) .....  
 International/Regional agricultural research centres (please specify) .....  
 Non-governmental organizations/Community-based organizations (please specify) .....  
 Other (please specify) .....

A.12.4. In the table below, please list and comment on which under-utilized species have been given priority, and the efforts and notable achievements in promoting these crops.

**Table 12.2. Under-utilized crops with priority for further development and results achieved through their promotion.**

Crop common name	Scientific name	Coordinating institution/ participating institutions (1)	Activity undertaken to promote the crop (2)	Results achieved through promotion

(1) To differentiate coordinating institution from participating institutions, please underline the coordinating institution.

(2) Please select the activity or activities that apply: (A) Research; (B) Seed distribution; (C) Improving processing; (D) Market development; (E) Public awareness; (F) Policy changes; (G) Other (please specify)

A.12.5. Please indicate under Table 19.1. the training (for female and male scientists, extension workers and farmers) carried out with the aim of strengthening capacity to implement activities on under-utilized crops.

A.12.6. Please indicate the one greatest constraint to conservation and management of under-utilized crops in the country.

- Insufficient financial support to conduct research on under-utilized crops
- Insufficient number of staff to support research and management of under-utilized crops
- Staff do not have sufficient skills to implement projects or research related to under-utilized crops
- Conservation of under-utilized crops is not a national priority
- Farmers do not have adequate incentives to conserve, on-farm, under-utilized crops
- Other (please specify) .....

A.12.7. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

### **Activity Area 14. Developing New Markets for Local Varieties and “Diversity-Rich” Products**

Increasingly, diversity is being replaced by uniformity in the agricultural market place. As a result, farmers are losing the incentive to maintain diversity of traditional crop landraces/local varieties. This activity area aims at stimulating stronger demand and more reliable market mechanisms for landraces/farmers’ varieties and related agricultural products.

A.14.1. Since 1995, did any change in the range of local crop varieties available in the market occur?

- The range broadened: a larger number of local crop varieties are currently available in the market compared with what was available in 1995
- The range remained basically the same: no major variations in the range of local crop varieties available in the market occurred since 1995
- The range shrunk: a reduced number of local crop varieties are currently available in the market compared with what was available in 1995
- It is not known what changes have occurred, if any

A.14.2. If this applies, please list in the table below all the crops whose range of varieties available in the market has changed since 1995, specifying (mark the appropriate box) whether the range has been reduced or increased.

**Table 14.1. List of crops whose range of varieties available in the market has been reduced or increased since 1995.**

Crop species	Range of varieties available in the market (1)	
	Reduced	Increased

(1) check one box for each species

A.14.3. Please select the one response below which best describes the situation in the country:

- Markets are well established for a wide range of crops and for local varieties/landraces within crops
- Some markets have been established for some crops and some local varieties/landraces within crops
- Attempts to develop markets for local varieties/landraces of some crops have been made, but little progress has been seen
- No attempts have been made to develop markets for local varieties/landraces of any crop
- Other (please specify) .....

A.14.4. Please comment on incentives that have been examined and implemented (such as niche variety-registration systems, labelling of products that use non-standard crop varieties, initiatives in schools, or street fairs), and their impact in promoting markets for local varieties and “diversity-rich” products?

A.14.5. Have disincentives to marketing biodiverse products been examined (e.g. market monopolies that impose uniformity)?  
YES / NO (please circle)

A.14.6. Please comment on how possible disincentives to marketing local varieties and “diversity-rich” products operate in the country, and how these can be overcome.

A.14.7. Please indicate the one greatest constraint to increasing markets for local varieties and “diversity-rich” products in the country.

- Insufficient financial support to conduct research on how to increase market access
- Insufficient number of staff to support research on markets
- Staff do not have sufficient skills to implement projects or research related to marketing local crop varieties and “diversity rich” products
- Developing markets for local crop varieties and “diversity rich” products is not a national priority
- Other (please specify) .....

A.14.8. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## Institutions and Capacity-building

### **Activity Area 15. Building Strong National Programmes**

National programmes are the foundation of regional and global plant genetic resource efforts. They can also provide the basis for developing a plan for national PGR strategy, balancing activities in *in situ*, *ex situ* conservation and use, conditions of access, safe movement, benefit-sharing, and technology-transfer. National programmes generally include representation from government, private, community organizations and NGOs that undertake PGR activities in the country. The form and complexity of a national programme varies greatly, depending, in part, on the size and resources in a given country. However, the above-mentioned functions for a national programme are considered necessary, whether it functions through a single individual as a focal point, or through a formally recognized constitution and a national committee. This activity area aims at establishing the essential elements of national programmes, improving institutional and sectoral linkages, including community efforts, and developing national capacity in the technical, managerial and policy areas.

A.15.1. Has any institutional entity (e.g. National Committee or other) responsible for the planning and management of PGRFA at national level been established? YES / NO (please circle)

A.15.2. If it applies, in which year was it established?

A.15.3. If it applies, has it ever been restructured since its establishment? YES / NO (please circle)

A.15.4. If it applies, in which year did the restructuring process occur?

A.15.5. If it applies, please provide the name of the institutional entity, the name of the ministry responsible for it and a brief description of the main objectives as they presently are.

Name of the institutional entity:

Ministry responsible for it:

Brief description of main objectives:



A.15.6. Please mark as appropriate which of the following categories are part of the institutional entity responsible for the planning and management of PGRFA at national level:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Farmers                       | <input type="checkbox"/> Plant breeders          | <input type="checkbox"/> Private sector              |
| <input type="checkbox"/> NGOs                          | <input type="checkbox"/> Universities            | <input type="checkbox"/> National genebank(s)        |
| <input type="checkbox"/> Community-based organizations | <input type="checkbox"/> Ministry of Agriculture | <input type="checkbox"/> Ministry of the Environment |
| <input type="checkbox"/> Other (please specify) .....  |  |  |

A.15.7. How regularly does the entity responsible for the planning and management of PGRFA at national level meet?

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Annually                     | <input type="checkbox"/> Twice a year           | <input type="checkbox"/> Quarterly during a year            |
| <input type="checkbox"/> Once every two years         | <input type="checkbox"/> Once every three years | <input type="checkbox"/> No regular meeting schedule exists |
| <input type="checkbox"/> Other (please specify) ..... |   |   |

A.15.8. Please indicate the date of its last meeting (dd/mm/yy).

A.15.9. Does a National Strategy/Plan/Programme on Conservation and Sustainable Use of PGRFA exist in the country? YES / NO (please circle)

A.15.10. If it applies, in which year was it established?

A.15.11. If it applies, please specify the legal framework that regulates the establishment of the National Strategy/Plan/Programme on Conservation and Sustainable Use of PGRFA

A.15.12. If it applies, has it ever been restructured since its establishment? YES / NO (please circle)

A.15.13. If it applies, in which year did the restructuring process occur?

A.15.14. If it applies, please provide a short description of the main objectives.

A.15.15. Does it incorporate the GPA's priority activity areas? YES / NO (please circle)

A.15.16. Is there any priority-setting in the objectives of the National Strategy/Plan/Programme on Conservation and Sustainable Use of PGRFA in relation to the GPA's priority activity areas? YES / NO (please circle)

A.15.17. If it applies, please provide the priority-setting (if any) of the GPA's activity areas, as set in your National Strategy/Plan/ Programme on Conservation and Sustainable Use of PGRFA in 1995 and in 2001.

**Table 15.1. Priority-setting of GPA's activity areas, as set out in the National Strategy/Plan/ Programme on Conservation and Sustainable Use of PGRFA in 1995 and in 2001.**

GPA's priority activity area	Priority-setting (1)	
	1995	2001
1. Surveying and inventorying plant genetic resources for food and agriculture		
2. Supporting on-farm management and improvement of plant genetic resources for food and agriculture		
3. Assisting farmers in disaster situations to restore agricultural systems		
4. Promoting <i>in situ</i> conservation of wild crop relatives and wild plants for food production		
5. Sustaining existing <i>ex situ</i> collections		
6. Regenerating threatened <i>ex situ</i> accessions		
7. Supporting planned and targeted collecting of plant genetic resources for food and agriculture		
8. Expanding <i>ex situ</i> conservation activities		
9. Expanding the characterization, evaluation and number of core collections to facilitate use		
10. Increasing genetic enhancement and base-broadening efforts		
11. Promoting sustainable agriculture through diversification of crop production and broader diversity in crops		
12. Promoting development and commercialisation of under-utilized crops and species		
13. Supporting seed production and distribution		
14. Developing new markets for local varieties and "diversity-rich" products		
15. Building strong national programmes		
16. Promoting networks for plant genetic resources for food and agriculture		
17. Constructing comprehensive information systems for plant genetic resources for food and agriculture		
18. Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture		
19. Expanding and improving education and training		
20. Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use		

(1) Ranking: 1 (high priority); 2 (medium priority); 3 (low priority).

A.15.18. Please list in the following table all the GPA's priority activity areas that are not covered by National Strategy/Plan/Programmes and Projects on conservation and sustainable use of PGRFA and provide a short comment on the reason(s) for their exclusion.

**Table 15.2. GPA's priority activity areas not covered by National Strategy/Plan/Programmes and Projects on conservation and sustainable use of PGRFA.**

GPA's priority activity area not covered by national strategy/plan/programmes and projects on conservation and sustainable use of PGRFA (1)	Reason(s) for being excluded from the National Strategy/Plan/Programmes and Projects on conservation and sustainable use of PGRFA

(1) 1. Surveying and inventorying plant genetic resources for food and agriculture; 2. Supporting on-farm management and improvement of plant genetic resources for food and agriculture; 3. Assisting farmers in disaster situations to restore agricultural systems; 4. Promoting *in situ* conservation of wild crop relatives and wild plants for food production; 5. Sustaining existing *ex situ* collections; 6. Regenerating threatened *ex situ* accessions; 7. Supporting planned and targeted collecting of plant genetic resources for food and agriculture; 8. Expanding *ex situ* conservation activities; 9. Expanding the characterization, evaluation and number of core collections to facilitate use; 10. Increasing genetic enhancement and base-broadening efforts; 11. Promoting sustainable agriculture through diversification of crop production and broader diversity in crops; 12. Promoting development and commercialization of under-utilized crops and species; 13. Supporting seed production and distribution; 14. Developing new markets for local varieties and "diversity-rich" products; 15. Building strong national programmes; 16. Promoting networks for plant genetic resources for food and agriculture; 17. Constructing comprehensive information systems for plant genetic resources for food and agriculture; 18. Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture; 19. Expanding and improving education and training; 20. Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use.

A.15.19. If this applies, please provide (or update) the date of appointment, title, name, position of the National Focal Point for the implementation of the GPA and name and full address (including telephone, fax, e-mail, etc.) of the institution she/he belongs to, according to the table below.

**Table 15.3. National Focal Point for the implementation of the GPA**

Date of appointment	Title	First name	Surname	Position within the institution	Name and full address of the institution

A.15.20. What mechanisms exist to promote coordination among crop, forest and animal genetic resources programmes in the country? (please check any of the following that exist in the country)

- A National Committee of Genetic Resources which coordinates crop, forest and animal genetic resources operates in the country
- Regular meetings are held between the parties responsible for crop, forest, and animal genetic resources
- The same institution is responsible for managing all of these genetic resources
- National policy promotes coordination between institutions responsible for these different genetic resources
- Coordination between these programmes responsible for the different resources takes place informally
- Coordination between crop, forest and animal genetic resources does not normally occur
- Forest and crop resources are coordinated but not animal genetic resources
- Other (please specify) .....

A.15.21. For each of the following topics please fill in/update the table below specifying the name of the legal text and mark as appropriate its current status (adopted, bill or draft).

**Table 15.4. Proposed/adopted laws on Seed and PGRFA.**

Topic		Name of legal text (1)	Adopted	Bill	Draft
<b>Seed Quality Control, Certification</b>					
<b>Plant Protection</b>	<b>Quarantine, Pesticide Control</b>				
	<b>Biosafety</b>				
<b>Plant Variety Protection/ Plant Breeder's Rights</b>					
<b>Patent Laws (2)</b>					
<b>Access to PGRFA</b>					
<b>PGRFA conservation</b>					
<b>Farmers' Rights</b>					

(1) If adopted, please indicate the year

(2) Only if plant varieties are protected through Patents

A.15.22. If the seed law is in force, does it cover also vegetative planting materials? YES / NO (please circle)

A.15.23. Please specify the system(s) adopted by the country for the protection of Plant Breeders' rights in line with the TRIPS Agreement.

- patents
- 1978 UPOV Convention
- 1991 UPOV Convention
- sui generis* system other than UPOV
- none

A.15.24. Is the country affiliated to the International Seed Testing Association (ISTA)? YES / NO (please circle)

A.15.25. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

**Activity Area 16. Promoting Networks for Plant Genetic Resources for Food and Agriculture**

Networks are important platforms for activities that include information sharing, technology transfer, sharing of responsibilities for activities such as collecting, conservation, distribution, evaluation, genetic enhancement and use of germplasm. Networks can promote exchange of materials on mutually agreed terms and also help set regional or crop-specific priorities and plans. This activity is aimed at strengthening existing regional, crop, and thematic networks; establishing new networks as necessary, and facilitating and promoting participation of countries in these networks.

A.16.1. Please list the full name and acronym of all PGRFA networks of which the country is an active member, specifying the participating institution and the network national focal point, and mark as appropriate whether their scope is either global or regional.

**Table 16.1. PGRFA Networks in which the country actively participates.**

Network: full name and acronym	Scope (1)	Primary activity	Participating institution(s)	Network national focal point (2)

(1) A = International, B= regional

(2) Name and full address (including telephone and e-mail)

A.16.2. Has your Government provided support to network activities between 1995 and 2001? YES / NO (please circle)

A.16.3. If yes, please check those types of support that your Government has provided to the above listed networks:

- |   |  |
|---|--|
| <input type="checkbox"/> Direct financial support through membership dues<br><input type="checkbox"/> Technical expertise in joint activities<br><input type="checkbox"/> Institutional infrastructure to participate in joint activities<br><input type="checkbox"/> Information management support<br><input type="checkbox"/> Other (please specify) ..... | <input type="checkbox"/> Travel costs to attend meetings<br><input type="checkbox"/> Organization and hosting of network meetings<br><input type="checkbox"/> Publishing costs |
|---|--|

A.16.4. Please list under Table 1. any project, in which the country participates, which has been developed, since 1995, in the context of the activities of any network listed under Table 16.1.

A.16.5. Please list in the table below any publication (with the exclusion of Proceedings) developed, since 1995, in the context of the activities of any network listed under Table 16.1., which the country has actively contributed to.

**Table 16.2. Publications developed since 1995 in the context of the activities of PGRFA networks.**

Title and year of the publication	Bibliographical reference	PGRFA network

A.16.6. Please indicate in the space provided below any training that has been provided to the country through a PGRFA network since 1995.

**Table 16.3. Training provided within the country since 1995 in the context of the activities of PGRFA networks.**

Date of training programme (month/year)	Subject of training	Number of national staff trained	Sponsoring PGRFA network	Kind of support provided by the country, if any

A.16.7. Please indicate any joint activities carried out by the country in collaboration with any PGRFA networks since 1995.

**Table 16.4. Joint activities carried out by the country in collaboration with any PGRFA networks since 1995.**

Dates of joint cooperation	Area of cooperation	Participating national institute	Collaborating countries	Affiliated PGRFA network



A.16.8. Please check any of the options below which describe the benefits the country gains through PGRFA networks. Please check any that apply.

- |  |  |
|--|--|
| <input type="checkbox"/> Transfer of technology  | <input type="checkbox"/> Exchange of germplasm                         |
| <input type="checkbox"/> Access to financial resources through participation in network projects | <input type="checkbox"/> Exchange of technical expertise               |
| <input type="checkbox"/> Training for national programme scientists                              | <input type="checkbox"/> Improved access to markets for PGRFA products |
| <input type="checkbox"/> Exchange of information   | <input type="checkbox"/> Access to advanced research facilities        |
| <input type="checkbox"/> Increased political awareness of PGRFA                                  |  |
| <input type="checkbox"/> Other (please specify) .....  |  |

A.16.9. Please provide any suggestion you wish to add to improve the effectiveness of the PGRFA networks.

A.16.10. Please identify which, if any, of the following puts constraints on your effective participation in regional and/or international PGRFA networks.

- |  |  |
|--|--|
| <input type="checkbox"/> Lack of financial resources to effectively participate      | <input type="checkbox"/> Networking is not a high priority                                     |
| <input type="checkbox"/> Networks are poorly managed and ineffective                 | <input type="checkbox"/> National policies limit the ability of our country to share germplasm |
| <input type="checkbox"/> The benefits of participation in the networks are not clear | <input type="checkbox"/> Bilateral relations are more productive than multilateral             |
| <input type="checkbox"/> No constraints exist  |  |
| <input type="checkbox"/> Other (please specify) .....                                |  |

A.16.11. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## **Activity Area 17. Constructing Comprehensive Information Systems for Plant Genetic Resources for Food and Agriculture**

PGRFA documentation is overall insufficient, particularly for wild crop relatives and on-farm genetic resources (*in situ* collections). While minimum passport, characterization, evaluation and management descriptors exist for many collections in scattered, hard-to-reach databases, a more integrated PGRFA information management approach capable of handling more detailed collecting and description information, including uses, farmer and indigenous knowledge, biochemical and molecular descriptors, can enhance conservation and use. This activity is aimed at assembling information in a usable form, using effective methodologies, databases and protocols; developing effective documentation systems in genebanks, and other PGR activities; and establishing or strengthening global, regional and crop-based data management and exchange networks, including electronic exchange and access, and training of personnel to undertake these tasks.

*Note that questions under this priority activity area have also been included in Part B (genebanks) and C (seed agency) of the Reporting Format.*

A.17.1. Please list the Information System(s) currently used for PGRFA and/or Seed Stock data management, specifying its(their) characteristics, functions and level of utilization, according to the table below.

**Table 17.1. Information System(s) currently used for PGRFA and/or Seed data management, its (their) characteristics, functions and use.**

Information system (acronym and full name)	Date of last release	Platform used for its development	Single/ Multi- user system (1)	Remote updating capabi- lity (2)	Single/ Multi- crop system (3)	Adopting institutions (4)	Kind and size of managed data				Comments
							<i>In situ con- serv- ation</i>	<i>Ex situ</i> collections		Varieties/ Landraces Seed Stock inventory (7)	
								Pass port (5)	C/E (5) (6)		

(1) Please detail whether the system can be used for data input and update by just one user (type **S**) or by more than one user contemporarily (type **M**)

(2) Please check the box if remote updating capabilities are part of the System's functions

(3) Please detail whether the system can be used for handling information of just one crop (type **S**) or any crop (type **M**)

(4) Please list all the institutions that are currently utilizing the system. For each institution please use one separate row of this table and complete the remaining columns on the right.

(5) Please provide the total number of documented accessions

(6) C/E is an abbreviation for Characterization and/or Evaluation

(7) Please check the box if the Information System includes a database on Variety/Landraces Seed Stock Inventory for Emergency Situations.

A.17.2. Please indicate under Table 19.1. number of women/men, type and level of training provided in PGR documentation/information in the country since 1995.

A.17.3. Does the country have access to international PGR databases (e.g. WIEWS; SINGER; IPGRI DGC; etc.)? YES / NO (please circle)

A.17.4. If it applies, please list the international PGR databases routinely accessed, specifying how frequently they are accessed.

**Table 17.2. International PGR databases routinely accessed and frequency of utilization.**

International PGR database	Frequency of access (1)	Date of last access

(1) Estimate number of accesses per year during the last five years.

A.17.5. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## **Activity Area 18. Developing Monitoring and Early Warning Systems for Loss of Plant Genetic Resources for Food and Agriculture**

Erosion of plant genetic resources can occur in *ex situ* collections, in farmers' fields and in the wild. However, no formal mechanisms exist to monitor situations that put plant genetic resources at risk, assemble information, and take appropriate action. This activity area is aimed at determining the underlying causes of genetic erosion, encouraging the monitoring at national, regional and global levels, and establishing mechanisms to insure that information is transferred to appropriate points designated as responsible for analysis, coordination and action.

A.18.1. Please check the appropriate boxes in the table below to indicate whether there are adequate mechanisms in place in the country to monitor threats of genetic erosion in *in situ* conservation areas and/or *ex situ* collections, and to take action to prevent it.

**Table 18.1. Monitoring threats of genetic erosion to *in situ* conservation areas and *ex situ* collections.**

	<i>In situ</i>	<i>Ex situ</i>
<b>Threats to PGRFA are routinely monitored, and action can be taken as needed</b>		
<b>Threats to PGRFA are sometimes monitored, preventive action is possible</b>		
<b>No monitoring of threats to PGRFA takes place; no mechanism in place for taking action to prevent genetic erosion</b>		
<b>Other (specify)</b>		

A.18.2. If mechanisms for monitoring exist, please check the ones in place and used to monitor genetic erosion in the country

- ( ) Land surveys and inventories ( ) Monitoring of reports of land use changes  
 ( ) Environmental Impact Assessments ( ) Genebank monitoring system  
 ( ) Other (please specify) .....

A.18.3. Is there a designated focal point to gather information on threats to genetic erosion, and to report these threats to appropriate organizations for action? YES / NO (please circle)

A.18.4. If it applies, please provide the title, name and position of this person in the table below.

**Table 18.2. National Focal Point for gathering and reporting information on threats to genetic erosion.**

Date of appointment	Title	First name	Surname	Position	Name and full address of the institution (1)

(1) Please include telephone, fax, and e-mail

A.18.5. If it applies, please list all the institutions/organizations involved in monitoring genetic erosion threats.

**Table 18.4. Institutions/organizations involved in monitoring genetic erosion threats.**

Institution name and full address (1)	Contact person's name (1)	Role played in monitoring genetic erosion threats

(1) Please include telephone, fax, and e-mail

A.18.6. The FAO World Information and Early Warning System (WIEWS) has recently been evaluated\*. Assuming the recommendations of the review are implemented, would the country provide necessary reports and information to WIEWS, and consider it an appropriate early warning system for monitoring the loss of PGRFA? YES / NO (please circle)

A.18.7. Please explain your answer to the above in the box below.

A.18.8. Please check any of the boxes below that describe the constraints faced in the country to monitoring genetic erosion.

- Lack of financial resources to adequately monitor genetic erosion
- Lack of skills needed to monitor genetic erosion
- Monitoring genetic erosion is not a high priority in the country
- Lack of technology needed to monitor genetic erosion
- No serious constraint to monitoring genetic erosion exists in the country
- Other (please specify) .....

A.18.9. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

\* The WIEWS evaluation can be found at [www.fao.org/ag/cgrfa/docs8.htm](http://www.fao.org/ag/cgrfa/docs8.htm) (document CGRFA/8/99/inf.5)

### **Activity Area 19. Expanding and Improving Education and Training**

The importance of training in achieving sustainable improvement in plant genetic resources for food and agriculture is widely accepted. Yet there is a dearth of well-trained personnel at virtually all levels and in all scientific and technical specialities in many developing countries. This activity is aimed at developing regional capacity for advanced training; developing short courses in priority areas; fostering access to external training in countries lacking national capacity; and including PGRFA in existing courses and educational programmes in the biological sciences.

A.19.1. Please check the box that best describes education and training for PGRFA in the country (check one box)

- A strategy for PGRFA education and training exists and is being adequately implemented
- A strategy for PGRFA education and training exists, but is not being adequately implemented
- There is no strategy for PGRFA education and training, but an adequate number of our staff are participating in training programmes
- There is no strategy for PGRFA education and training and few of our staff participate in training for PGRFA
- Other (please specify) .....

A.19.2. If you have a training and education strategy, please indicate the year in which it was established? 19\_\_

A.19.3. What is the availability of university training opportunities in the region in areas related to PGR conservation and use? (please check appropriate boxes)

- Sufficient university level training opportunities exist in the region
- Some university level training opportunities exist, but they are not sufficient to meet our needs
- No university level training opportunities exist in the region and no national programme staff have participated in university courses either inside or outside the region
- No university level training opportunities exist in the region, but national programme staff have participated in university courses outside the region.
- Other (please specify) .....

A.19.4. What is the availability of short course training opportunities in the region on priority topics related to PGR conservation and use?

- Sufficient short course training opportunities exist in the region
- Some short course training exists in the region, but they are not sufficient to meet our needs
- No short course training opportunities exist in the region and no national programme staff have participated in any short courses either inside or outside the region
- No short course training opportunities exist in the region, but national programme staff have participated in short courses outside the region.
- Other (please specify) .....

A.19.5. Please list any training activity carried out within the framework of the capacity-building strategy and in line with the GPA’s priority activity areas, attended by national programme staff since 1995.

**Table 19.1. Training activities carried out within the framework of the capacity-building strategy and in line with the GPA’s priority activity areas attended by national programme staff.**

Date	Organizing institution	Course title	GPA’s priority activity areas covered (1)	Duration	Type of course (2)	Number of experts trained

(1) **1.** Surveying and inventorying plant genetic resources for food and agriculture; **2.** Supporting on-farm management and improvement of plant genetic resources for food and agriculture; **3.** Assisting farmers in disaster situations to restore agricultural systems; **4.** Promoting *in situ* conservation of wild crop relatives and wild plants for food production; **5.** Sustaining existing *ex situ* collections; **6.** Regenerating threatened *ex situ* accessions; **7.** Supporting planned and targeted collecting of plant genetic resources for food and agriculture; **8.** Expanding *ex situ* conservation activities; **9.** Expanding the characterization, evaluation and number of core collections to facilitate use; **10.** Increasing genetic enhancement and base-broadening efforts; **11.** Promoting sustainable agriculture through diversification of crop production and broader diversity in crops; **12.** Promoting development and commercialization of under-utilized crops and species; **13.** Supporting seed production and distribution; **14.** Developing new markets for local varieties and “diversity-rich” products; **15.** Building strong national programmes; **16.** Promoting networks for plant genetic resources for food and agriculture; **17.** Constructing comprehensive information systems for plant genetic resources for food and agriculture; **18.** Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture; **19.** Expanding and improving education and training; **20.** Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use.

(2) e.g. workshop; symposium; short course; seminar; academic; PhD; MSc; etc.

A.19.6. Have PGR topics been integrated into the various university programmes in biological sciences offered in the country? (please check the box that best describes the situation in the country)

- PGR topics have been very well integrated into all biological science university programmes in the country
- PGR topics have been integrated into some of the biological science university programmes in the country
- PGR topics have not been integrated into any of the biological science university programmes in the country
- Our strategy has been to create new PGR programmes, rather than to integrate PGR into existing programmes of biological science
- Other (please specify) .....

A.19.7. Please indicate the greatest obstacles to training in PGR in the country. (Please check all those that apply)

- Lack of adequate financial resources to support training
- Lack of training materials related to PGR
- Lack of short courses related to PGR topic areas
- Training programmes exist but their quality needs to be improved
- Lack of trainers to conduct courses related to PGR
- Low awareness of the training needs within the country
- There are no serious obstacles to PGR training in the country
- Other (please specify) .....

A.19.8. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national, or sub-regional level, and actions or support needed from regional and/or international organizations.





A.20.5. Please list, if any, NGOs and/or well-known personalities involved in public awareness activities.

A.20.6. Please check the audiences that are the targets of public awareness campaigns promoting understanding of PGRFA activities.

- Policy makers     Scientists     Extension agents     Farmers     School children     General public  
 Other (please specify) .....

A.20.7. Please check the subjects that are addressed by such public awareness campaigns.

- Importance of PGRFA as part of biodiversity     Farmers' role     *In situ* conservation     *Ex situ* conservation     National policy  
 Other (please specify) .....

A.20.8. Please check the media used in the country for public awareness activities on PGRFA

- Radio     Newspapers     College lectures     Television     Seminars/school programmes  
 Other (please specify) .....

A.20.9. Please list in the table below regional or international organizations that provide the country with support for public awareness activities on PGRFA.

**Table 20.1. Organizations providing support to the country for public awareness activities on PGRFA.**

Organization	Kind of support for public awareness activities on PGRFA (1)

(1) i.e. financial assistance, technical assistance, publications, brochures, etc.

A.20.10. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

**PART B****REPORTING FORMAT for MONITORING the IMPLEMENTATION of the GLOBAL PLAN of ACTION (GPA) for the CONSERVATION and SUSTAINABLE USE of PLANT GENETIC RESOURCES for FOOD and AGRICULTURE (PGRFA)**

**This questionnaire should be sent to and completed by each institution in your country that is responsible for germplasm *ex situ* conservation and germplasm characterization and evaluation. Please ensure that they are completed by the appropriate person(s)/ institution(s). On behalf of all those who are participating and contributing to this monitoring process and those who will benefit from the knowledge derived from it: thank you.**

Country:
Title and name of person completing the questionnaire:
Position:
Institute:
Genebank name (if different from Institute):
Date of completion:

Please return the completed questionnaire to the National Focal Point for the implementation of the GPA

## 1. Programmes and/or projects addressing GPA's priority activity areas

1.1. Please list PGRFA programmes and projects, presently carried out with the participation of your institution, addressing GPA's priority activity areas 5-9 and 17, their current operational status, geographical focus, responsible/executing institution, total budget and correspondent currency, funding source, start and end date, and which of the GPA's priority activity areas are addressed.

**Table 1.b. PGRFA programmes and projects addressing GPA's priority activity areas\***

PGRFA programme/project	Status (1)	Geo-graphical focus (2)	Responsible/executing institution	Total budget (3)	Funding source	Date		GPA's priority activity areas addressed (4)
						Start	End	

(1) P=Proposed; A=Approved; O=On-going; C=Completed; other (specify); (2) N=National; R=Regional; I=International; other (specify); (3) Specify the currency used.

(4) Fill in this column with the activity(ies) corresponding number(s) only. **1.** Surveying and inventorying plant genetic resources for food and agriculture; **2.** Supporting on-farm management and improvement of plant genetic resources for food and agriculture; **3.** Assisting farmers in disaster situations to restore agricultural systems; **4.** Promoting *in situ* conservation of wild crop relatives and wild plants for food production; **5.** Sustaining existing *ex situ* collections; **6.** Regenerating threatened *ex situ* accessions; **7.** Supporting planned and targeted collecting of plant genetic resources for food and agriculture; **8.** Expanding *ex situ* conservation activities; **9.** Expanding the characterization, evaluation and number of core collections to facilitate use; **10.** Increasing genetic enhancement and base-broadening efforts; **11.** Promoting sustainable agriculture through diversification of crop production and broader diversity in crops; **12.** Promoting development and commercialization of under-utilized crops and species; **13.** Supporting seed production and distribution; **14.** Developing new markets for local varieties and "diversity-rich" products; **15.** Building strong national programmes; **16.** Promoting networks for plant genetic resources for food and agriculture; **17.** Constructing comprehensive information systems for plant genetic resources for food and agriculture; **18.** Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture; **19.** Expanding and improving education and training; **20.** Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use.

\* All the tables in the reporting format can be adjusted by adding new rows or deleting existing ones, as needed. Any change in the structure of the tables, in particular the addition of new columns should be avoided.

## *Ex Situ* Conservation

### Activity Area 5. Sustaining Existing *Ex Situ* Collections

In the past 20 years, the numbers of *ex situ* collections and genebanks have grown rapidly. However many of these genebanks are experiencing difficulties in maintaining these collections. Lack of long term storage or alternative storage methods, accessions conserved below agreed genebank standards, an excessive number of duplicates of the same accession, lack of coordination among genebanks, and lack of continued funding, are reasons why the sustainability of these collections is threatened.

B.5.1. Changes in annual budget, staff, and number of species and accessions of *ex situ* holding collection in your genebank. Please complete the table below.

**Table 5.1. Annual budget, staff and number of species and accessions of *ex situ* holding collection during 1995-2001 period.**

<i>Ex situ</i> conservation activities	1995	1996	1997	1998	1999	2000	2001	Currency
<b>Budget (internal source)</b>								
<b>Budget (external source, e.g. cooperative programmes)</b>								
<b>Professional Staff</b>								-----
<b>General Staff</b>								-----
<b>Total number of species in storage</b>								-----
<b>Total number of accessions in storage</b>								-----

B.5.2. Please list (update) all species, total number of accessions and corresponding method(s) currently used to store each species in your genebank. For each species and method, specify the total number and status of the accessions stored, the number of accessions that currently require to be regenerated, the number of accessions duplicated in other genebanks and the name of the genebank(s) holding such duplications and provide an estimate of the risk of genetic erosion during storage under present conditions.

**Table 5.2. Germplasm holdings in the *ex situ* collection, grouped by species and storage methods, including a risk estimate of genetic erosion.**

Species	Total number of accessions in storage	Storage method <sup>1</sup>	Number of accessions <sup>2</sup>	Status of sample <sup>3</sup>	Number of accessions that require regeneration	Number of accessions duplicated in other genebanks	Genebank holding duplication <sup>4</sup>	Risk estimate of genetic erosion <sup>5</sup>

B.5.3. Is there capability to monitor genetic diversity of the collections in your institute? YES / YES, IN PART / NO (please circle)

<sup>1</sup> ST (short term - seed); MT (medium term - seed); LT (long term - seed); FV (field - vegetative material); IV (*In vitro* - tissue culture); CP (cryopreservation)

<sup>2</sup> Number of accessions stored under the specified storage method.

<sup>3</sup> WS = Wild (FAO/IPGRI Multicrop passport descriptor 1); WE = Weedy (FAO/IPGRI Multicrop passport descriptor 2); LR = Traditional cultivar/landrace (FAO/IPGRI Multicrop passport descriptor 3); BL = Breeder's line (FAO/IPGRI Multicrop passport descriptor 4); AC = Advanced cultivar (FAO/IPGRI Multicrop passport descriptor 5); IF = Introgressed form; GS = Genetic stock; CU = Cultivated; MT = Mutant; OL = Old cultivar.

<sup>4</sup> Provide the WIEWS Institution code for the genebank holding a duplication of the accessions as reported in the previous column.

<sup>5</sup> Scores: 0 - No risk at all; 1 - Low risk; 2 - Low to Medium risk; 3 - Medium risk; 4 - Medium to High risk; 5 - High risk.

B.5.4. Is this monitoring being done on a regular basis? YES / NO (please circle)

B.5.5. Is there capability to monitor viability of the collections in your institute? YES / YES, IN PART / NO (please circle)

B.5.6. Is this being done on a regular basis? YES / NO (please circle)

B.5.7. Are there any cooperation arrangements established through regional crop networks or international organizations to conserve accessions from your collections? YES / NO (please circle)

B.5.8. If it applies, please provide details on such arrangement(s).

B.5.9. Please comment on cooperative arrangements made for *ex situ* collections in the country, specifying whether Material Transfer Agreements or other arrangements have been used to define the terms for exchanging and maintaining this germplasm.

B.5.10. Please comment on major achievements that have occurred since 1995 in *ex situ* conservation activities

B.5.11. Please comment on major drawbacks that have occurred since 1995 in *ex situ* conservation activities

B.5.12. Please list any training which was received by your staff since 1995.

**Table 5.3. Training undertaken by institutional staff since 1995.**

Date	Organizing institution	Course title	Duration	Type of course (1)	Number of experts trained

(2) e.g. workshop; symposium; short course; seminar; MSc; PhD; etc

B.5.13. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.



### **Activity Area 6. Regenerating Threatened *Ex Situ* Accessions**

Many accessions presently stored in genebanks require regeneration to prevent loss of viability and consequent loss of genes or genotypes. Adequate amounts of seed must also be maintained to meet users' requests, and ensure genetic integrity of the accessions. This activity is aimed at establishing the infrastructure needed for periodic regeneration including coordinating mechanisms, locations for regeneration, and initiating action to regenerate accessions under conditions designed to preserve the genetic integrity of material.

B.6.1. Are multi-year plans for regenerating priority accessions in place in your genebank? YES / NO (please circle)

B.6.2. Have priorities for regeneration been determined? YES / NO (please circle)

B.6.3. How many years will it take to regenerate present priority accessions?

B.6.4. Do regeneration plans include elimination of unnecessary duplicates? YES / NO (please circle)

B.6.5. Are there problems implementing the plans? YES / NO (please circle)

B.6.6. Please comment on any regeneration problem in your genebank

B.6.7. Are regeneration efforts being assisted/undertaken through the country's involvement in crop or regional networks, linkages with international organizations, or arrangements with other countries? YES / NO (please circle)

B.6.8. If so, how?

B.6.9. Have recently published regeneration guidelines proved useful in undertaking regeneration activities? YES / NO (please circle)

B.6.10. Please add under Table 5.3. any training related to this activity area which was received by your staff.

B.6.11. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## **Activity Area 7. Supporting Planned and Targeted Collecting of Plant Genetic Resources for Food and Agriculture**

Over the past 20 years, extensive collecting efforts have been undertaken. Major crops have been generally well collected, but collections of minor, regional or subsistence crops are generally less complete. This activity aims at collecting those species, ecotypes, landraces/farmers' varieties or other cultivars, and associated information, which are under threat. The activity also aims at filling gaps in the genetic diversity of existing collections with well targeted and prioritized collecting.

B.7.1. Please list all collecting missions and correspondent funding projects/programmes carried out since 1995, providing details of the geographical area where the mission took place, species and number of accessions collected, and whether or not long-term conservation has been secured for the collected accessions.

**Table 7. 1. Species and number of accessions collected during all collecting missions and correspondent funding projects/programmes carried out since 1995.**

<b>Project/Programme funding collecting mission</b>	<b>Date of mission</b>	<b>Geographical area</b>	<b>Species</b>	<b>Number of accessions collected</b>	<b>Long-term conservation secured (1)</b>

(1) Check the box below to indicate whether long-term conservation has been secured for the collected accessions.

B.7.2. Please add under Table 5.3. any training related to this activity area which was received by your staff.

B.7.3. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

### **Activity Area 8. Expanding *Ex Situ* Conservation Activities**

Many important species cannot be conserved effectively as seed, but require conservation methods that are more risky, or expensive, or the use of new methods that are not yet widely available. This activity is aimed at developing management strategies for *ex situ* conservation of vegetatively propagated and recalcitrant seeded plants, as well as for species neglected in current conservation activities.

B.8.1. Have low-cost botanical gardens, arboreta, and/or field genebanks been established in universities, schools, *etc.* since 1995?

YES / NO (please circle)

B.8.2. Please describe any innovative management strategies and/or improved methodologies for *ex situ* conservation of vegetatively propagated and recalcitrant seeded plants, as well as for species neglected in current conservation activities that have been developed by your institution since 1995.

B.8.3. Please list any publication made available by your institution since 1995 on innovative management strategies and/or improved methodologies for *ex situ* conservation of plant genetic resources, including vegetatively propagated and recalcitrant seeded plants, as well as for species neglected in current conservation activities.

**Table 8.1. Publications on innovative management strategies and/or improved methodologies for *ex situ* conservation of vegetatively propagated and recalcitrant seeded plants, as well as for species neglected in current conservation activities.**

Title	Author(s)	Year	Publisher

B.8.4. Please add under Table 5.3. any training related to this activity area which was undertaken by institutional staff since 1995.

B.8.5. If storage facilities for *ex situ* conservation have been upgraded since 1995, please describe which changes have occurred.

B.8.6. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## Utilization of Plant Genetic Resources

### **Activity Area 9. Expanding the Characterization, Evaluation and Number of Core Collections to Facilitate Use**

In country reports, lack of characterization and evaluation is cited as a major constraint to use of plant genetic resources in breeding programmes. This activity is aimed at giving high priority to characterization and evaluation programmes; adopting new technologies that can make characterization and evaluation more effective; and development of core collections for crops of both global and national importance.

B.9.1. Please provide estimates, as a percentage of the total number of accessions stored in your genebank, of the accessions that have been, partially and/or fully (according to your standards), characterized and evaluated for each species or group of species (e.g. cereals, roots and tubers, etc.), listing all institutions and/or organizations that are collaborating in the characterization and evaluation activities.

**Table 9.1. Status of characterization and evaluation of the accessions stored in the genebank for each group of species in 1995 and 2001.**

Group/Species	Accessions Characterized, %				Accessions Evaluated, %				Collaborating institutions/organizations
	In part (1)		Fully (2)		In part (3)		Fully (4)		
	1995	2001	1995	2001	1995	2001	1995	2001	

(1) Percentage of accessions that have been partially characterized out of the total number of accessions stored

(2) Percentage of accessions that have been fully characterized out of the total number of accessions stored

(3) Percentage of accessions that have been partially evaluated out of the total number of accessions stored

(4) Percentage of accessions that have been fully evaluated out of the total number of accessions stored

B.9.2. The efficacy of characterization and evaluation might be improved by identifying only a few key traits, or by adapting new methodologies, such as biochemical, or molecular characterization. Are key traits and new methods being used to characterize and evaluate accessions by your institution? YES / NO (please circle)

B.9.3. If this applies, please comment on them.

B.9.4. Please add under Table 5.3. any training related to this activity area which was received by your staff as well as organized for farmers on on-farm evaluation.

B.9.5. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## Institutions and Capacity-building

### **Activity Area 17. Constructing Comprehensive Information Systems for Plant Genetic Resources for Food and Agriculture**

PGRFA documentation is overall insufficient, particularly for wild crop relatives and on-farm genetic resources (*in situ* collections). While minimum passport, characterization, evaluation and management descriptors exist for many collections in scattered, hard-to-reach databases, a more integrated PGRFA information management approach capable of handling more detailed collecting and description information, including uses, farmer and indigenous knowledge, biochemical and molecular descriptors, can enhance conservation and use. This activity is aimed at assembling information in usable form, using effective methodologies, databases and protocols; developing effective documentation systems in genebanks, and other PGR activities; and establishing or strengthening global, regional and crop-based data management and exchange networks, including electronic exchange and access, and training of personnel to undertake these tasks.

B.17.1. Please list the Information System(s) currently used for PGRFA and/or Seed Stock data management, specifying its(their) characteristics, functions and level of utilization, according to the table below.

**Table 17.1.b Information System(s) currently used for PGRFA and/or Seed data management, its (their) characteristics, functions and use.**

Information system (acronym and full name)	Date of last release	Platform used for its development	Single/ Multi- user system (1)	Remote updating capabi- lity (2)	Single/ Multi- crop system (3)	Adopting institutions (4)	Kind and size of managed data				Comments
							In situ con- serva- tion	Ex situ collections		Varieties/ Landraces Seed Stock inventory (7)	
								Pass port (5)	C/E (5) (6)		

(1) Please detail whether the system can be used for data input and update by just one user (type **S**) or by more than one user contemporarily (type **M**)

(2) Please check the box if remote updating capabilities are part of the System's functions

(3) Please detail whether the system can be used for handling information of just one crop (type **S**) or any crop (type **M**)

(4) Please list all the institutions that are currently utilizing the system. For each institution please use one separate row of this table and complete the remaining columns on the right.

(5) Please provide the total number of documented accessions

(6) C/E is an abbreviation for Characterization and/or Evaluation

(7) Please check the box if the Information System includes a database on Variety/Landraces Seed Stock Inventory for Emergency Situations.



B.17.2. Please add under Table 5.3. any training related to this activity area which was received by your staff.

B.17.3. Does your institution have access to international PGR databases (e.g. WIEWS; SINGER; IPGRI DGC; etc.)?

YES / NO (please circle)

B.17.4. If it applies, please list the international PGR databases routinely accessed, specifying how frequently they are accessed.

**Table 17.2. International PGR databases routinely accessed and frequency of utilization.**

International PGR database	Frequency of access (1)	Date of last access

(1) Estimate number of accesses per year during the last five years.

B.17.5. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## PART C

### **REPORTING FORMAT for MONITORING the IMPLEMENTATION of the GLOBAL PLAN of ACTION (GPA) for the CONSERVATION and SUSTAINABLE USE of PLANT GENETIC RESOURCES for FOOD and AGRICULTURE (PGRFA)**

**This questionnaire should be sent to and completed by the institution in your country that is responsible for seed production and distribution policies. Please ensure that they are completed by the appropriate person(s)/institution(s). On behalf of all those who are participating and contributing to this monitoring process and those who will benefit from the knowledge derived from it: thank you.**

Country:
Title and name of person completing the questionnaire:
Position:
Institute:
Date of completion:

Please return the completed questionnaire to the National Focal Point for the implementation of the GPA

### **Activity Area 13. Supporting Seed Production and Distribution**

The availability of seed and planting materials to farmers can be constrained by lack of production of seed of appropriate varieties in sufficient quantities, and poor seed distribution systems. This activity is aimed at improving the complementarity between governmental, commercial and small-scale seed production and distribution; expanding local-level seed production and distribution to support the needs of small farmers; and making new crop varieties available to farmers, including suitable materials from *ex situ* storage.

C.13.1. Please list under Table 1.C. all programmes/projects in the country supporting seed production and distribution.

**Table 1.C. PGRFA programmes and projects addressing GPA's priority activity area: "Supporting Seed Production and Distribution".\***

PGRFA programme/project	Status (1)	Geo-graphical focus (2)	Responsible/executing institution	Total budget (3)	Funding source	Date		GPA's priority activity areas addressed (4)
						Start	End	
								13
								13
								13
								13
								13
								13

(1) **P**=Proposed; **A**=Approved; **O**=On-going; **C**=Completed; other (specify); (2) **N**=National; **R**=Regional; **I**=International; other (specify); (3) Specify the currency used.

(4) Add any other GPA activity area covered by the project/programme by filling in this column with the activity(ies) corresponding number(s) only. **1.** Surveying and inventorying plant genetic resources for food and agriculture; **2.** Supporting on-farm management and improvement of plant genetic resources for food and agriculture; **3.** Assisting farmers in disaster situations to restore agricultural systems; **4.** Promoting *in situ* conservation of wild crop relatives and wild plants for food production; **5.** Sustaining existing *ex situ* collections; **6.** Regenerating threatened *ex situ* accessions; **7.** Supporting planned and targeted collecting of plant genetic resources for food and agriculture; **8.** Expanding *ex situ* conservation activities; **9.** Expanding the characterization, evaluation and number of core collections to facilitate use; **10.** Increasing genetic enhancement and base-broadening efforts; **11.** Promoting sustainable agriculture through diversification of crop production and broader diversity in crops; **12.** Promoting development and commercialization of under-utilized crops and species; **13.** Supporting seed production and distribution; **14.** Developing new markets for local varieties and "diversity-rich" products; **15.** Building strong national programmes; **16.** Promoting networks for plant genetic resources for food and agriculture; **17.** Constructing comprehensive information systems for plant genetic resources for food and agriculture; **18.** Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture; **19.** Expanding and improving education and training; **20.** Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use.

\* All the tables in the reporting format can be adjusted by adding new rows or deleting existing ones, as needed. Any change in the structure of the tables, in particular the addition of new columns, should be avoided.

C.13.2. How many crop varieties have been released in the country since 1995?

C.13.3. Please list all new crop varieties which have been released in the country since 1995.

**Table 13.1. List of crop varieties released since 1995.**

Crop/Species	Variety name	Breeding Institute/ Breeder	Year of release	Origin of germplasm	Brief varietal description

C.13.4. Are there policies in place in the country to develop and expand viable local-level seed production and distribution mechanisms for varieties and crops important to small-scale farmers? YES / NO (please circle)

C.13.5. If this applies, please list crops and varieties which benefit from such policies and briefly describe such policies.

C.13.6. Are there any incentives for quality seed production of under-utilized crops? YES / NO (please circle)

C.13.7. If this applies, please explain which incentives for quality seed production of under-utilized crops are in place.

--

C.13.8. Is a participatory approach for on-farm variety evaluation being carried out on a regular basis in the country? YES / NO (please circle)

C.13.9. Please indicate under Table 19.1.C., training activities carried out since 1995 on seed technology subjects with the aim of strengthening capacity to improve seed production and distribution and attended by national programme staff.

**Table 19.1.C Training activities carried out within the framework of the capacity-building strategy and in line with GPA's priority activity areas attended by national programme staff.**

Date	Organizing institution	Course title	GPA's priority activity areas covered (1)	Duration	Type of course (2)	Number of experts trained
			13			
			13			

(1) **1.** Surveying and inventorying plant genetic resources for food and agriculture; **2.** Supporting on-farm management and improvement of plant genetic resources for food and agriculture; **3.** Assisting farmers in disaster situations to restore agricultural systems; **4.** Promoting *in situ* conservation of wild crop relatives and wild plants for food production; **5.** Sustaining existing *ex situ* collections; **6.** Regenerating threatened *ex situ* accessions; **7.** Supporting planned and targeted collecting of plant genetic resources for food and agriculture; **8.** Expanding *ex situ* conservation activities; **9.** Expanding the characterization, evaluation and number of core collections to facilitate use; **10.** Increasing genetic enhancement and base-broadening efforts; **11.** Promoting sustainable agriculture through diversification of crop production and broader diversity in crops; **12.** Promoting development and commercialization of under-utilized crops and species; **13.** Supporting seed production and distribution; **14.** Developing new markets for local varieties and "diversity-rich" products; **15.** Building strong national programmes; **16.** Promoting networks for plant genetic resources for food and agriculture; **17.** Constructing comprehensive information systems for plant genetic resources for food and agriculture; **18.** Developing monitoring and early warning systems for loss of plant genetic resources for food and agriculture; **19.** Expanding and improving education and training; **20.** Promoting public awareness of the value of plant genetic resources for food and agriculture conservation and use.

(2) e.g. workshop; symposium; short course; seminar; academic; PhD; MSc; etc.

C.13.10. Please mark as appropriate all major constraints in the country to make seed of new crop varieties available in the market.

Inadequate seed production systems

- insufficient availability of basic seed
- insufficient availability of foundation seed
- insufficient availability of registered seed
- insufficient availability of certified seed
- insufficient availability of commercial seed
- insufficient availability of disease-free planting material

Inadequate seed distribution systems

- distance to seed supplier
- poor seed storage facilities
- poor seed germinability
- low seed physical purity
- varieties poorly adapted to local conditions
- market price
- availability and cost of required production inputs

Other (please specify) .....

C.13.11. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

## Institutions and Capacity-building

### **Activity Area 15. Building Strong National Programmes**

C.15.1. Are there agencies responsible for variety registration in the country? YES / NO (please circle)

C.15.2. If yes, give name and full address of the agency(ies) responsible for variety-registration, specifying also the crop(s) the agency(ies) is(are) responsible for.

**Table 15.4. Name and full address of the agency(ies) responsible for variety-registration and crop(s) the agency(ies) is(are) responsible for.**

Agency	Crop Species

C.15.3. Please mark as appropriate which procedures are followed in the country for variety-registration.

- Distinctness, uniformity and stability, DUS
- Value for cultivation and use, VCU
- Combination of both
- Other (please specify).....

C.15.4. Is there any publication in the country listing registered and/or recommended varieties? YES / NO (please circle)



C.15.5. If it applies, please give bibliographical reference to publication(s) in the country and/or region/sub-region listing registered and/or recommended varieties, specifying the crop the publication refers to.

**Table 15.5. Crop and correspondent bibliographical reference to publication(s) in the country and/or region/sub-region listing registered and/or recommended varieties.**

Crop	Registered/Recommended Varieties Publication

C.15.6. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.

**Activity Area 17. Constructing Comprehensive Information Systems for Plant Genetic Resources for Food and Agriculture**

C.17.1. Please list the Information System(s) currently used for PGRFA and/or Seed Stock data management, specifying its(their) characteristics, functions and level of utilization, according to the table below.

**Table 17.1.C. Information System(s) currently used for PGRFA and/or Seed data management, its (their) characteristics, functions and use.**

Information system (acronym and full name)	Date of last release	Platform used for its development	Single/ Multi- user system (1)	Remote updating capabi- lity (2)	Single/ Multi- crop system (3)	Adopting institutions (4)	Kind and size of managed data				Comments
							In situ con- serv- ation	Ex situ collections		Varieties/ Landraces Seed Stock inventory (7)	
								Pass port (5)	C/E (5) (6)		

- (1) Please detail whether the system can be used for data input and update by just one user (type **S**) or by more than one user contemporarily (type **M**)
- (2) Please check the box if remote updating capabilities are part of the System's functions
- (3) Please detail whether the system can be used for handling information of just one crop (type **S**) or any crop (type **M**)
- (4) Please list all the institutions that are currently utilizing the system. For each institution please use one separate row of this table and complete the remaining columns on the right.
- (5) Please provide the total number of documented accessions
- (6) C/E is an abbreviation for Characterization and/or Evaluation
- (7) Please check the box if the Information System includes a database on Variety/Landraces Seed Stock Inventory for Emergency Situations.

C.17.2. Does your institution have access to international Seed databases (e.g. WIEWS/SIS; etc.)? YES / NO (please circle)

C.17.3. If it applies, please list under Table 17.2.C the international seed databases routinely accessed, specifying how frequently they are accessed.

**Table 17.2.C International Seed databases routinely accessed and frequency of utilization.**

International Seed database	Frequency of access (1)	Date of last access

(1) Estimate number of accesses per year during the last five years.

C.17.4. Please comment in the box below (which can be expanded as needed) on priorities, needs and constraints to implementation, opportunities for further action at national or sub-regional level, and actions or support needed from regional and/or international organizations.