

**Agricultural PGR Action Plan**  
**Produced by**  
**The Workshop on Agricultural PGR in the Pacific:**  
**Formation of a Regional Network for Conservation,**  
**Management, and Use**  
**September 2001**

**Introduction:** Plant genetic resources are important for present and future agricultural productivity in the Pacific. The development of a regional agricultural plant genetic resources network is needed to optimize conservation and management of PGR, and to make better use of these valuable resources in the Pacific region. At the same time, the Pacific PGR network recognizes that the management and enhancement of plant genetic resources have been in the hands of farm families and communities from the beginning of agriculture. The network further acknowledges that the contributions of farm families, communities and indigenous peoples are critical for the conservation, use and active enhancement of biological diversity. Therefore these groups should be the ultimate beneficiaries of PGR activities.

The responsibility of implementing the action plan will be with participating national agricultural PGR committees, IPGRI and the SPC agriculture programme. Collaborators will include, but will not be limited to ACIAR, CIRAD, COGENT, Forum Secretariat, Hort+Research, INIBAP, QDPI, QUT, SPREP, UQ, UH, USP, and WWF.

**Purpose of the network:** To improve and strengthen our national and regional ability in agricultural PGR conservation and use, thereby contributing to food security and sustainable economic development, now and for future generations.

**Objectives of the network:**

1. **Develop appropriate collecting and conservation strategies for the agricultural PGR in the Pacific.** Existing crop networks such as COGENT, INIBAP, TaroGen, SPYN, will be part of the PGR network, which will provide a mechanism for their sustainability.

**Activities agreed on at the workshop by the participants:**

- a) **National agricultural PGR committees to complete matrices** developed in PGR planning workshop on prioritization, collecting, conservation, characterization, introduction, training and public awareness raising. (November 2001)
- b) **Diversity analysis for banana, kava, and yam spp other than alata.** A cost analysis will be carried out to determine the funds required for this activity. Proposals will be developed and funding sought. Once funds are available, this will be carried out in close collaboration with IPGRI using a variety of tools and information sources. The newer techniques will complement the more traditional indicators of diversity, such as morpho-agronomic and ethnobotanical studies.
- c) **Rationalization of sweet potato collection**  
Sweet potatoes are a priority crop in the Pacific. There is a relatively large *ex situ* sweet potato collection held in PNG. Some of these accessions are also maintained *in vitro* at the SPC RGC. These collections need to be rationalized to make them more manageable. In addition there needs to be further evaluation of this collection outside of PNG. SPC will obtain information on these collections from NARI and former PRAP 4 staff. SPC will work with IPGRI and NARI to determine the best strategy to

conserve and utilize these collections along with the costs. Contact will be made with CIP, which is the international center with the mandate for sweet potatoes.

d) **On-farm conservation studies**

The preliminary on-farm studies carried out by the TaroGen project in Vanuatu and Solomon Islands have indicated the importance of this conservation strategy in the region. A proposal is being submitted to GEF by TaroGen to carry out more detailed on-farm studies with three countries, PNG, Solomons and Vanuatu. There needs to be more information obtained about this approach, so that countries are fully aware of how this method of conservation can be used to its full advantage. IPGRI has been exploring this approach for some time now and so their knowledge and expertise in this area can be of great benefit to the network-

e) **Seed storage potential for taro, sweet potato, and aibika.**

Seed storage of vegetatively propagated crops provides a low cost, long-term method for conservation of genes. Some preliminary work has been done with taro seeds, indicating they are orthodox. This work is being continued and needs to be extended to the other crops. A literature search will be carried out to gather information on sweet potato and aibika. If needed, work could be carried out at SPC in collaboration with national programmes.

f) **Optimizing of cryopreservation protocols for all major root crops.**

Cryopreservation is the only safe, effective long-term method of conservation for vegetatively propagated crops, therefore the research that has been initiated with taro should be continued and extended to the other major crops (sweet potato, yams). An analysis will have to be conducted to determine if this work should be done at SPC, or contracted out.

g) **Liase with other regional organizations and national partners to ensure that minor species of nutritional importance receive adequate attention**

This requires countries to gather information about their minor species. This should be done in consultation with NGOs and other partners that could contribute to this effort. If NBSAPs are in place and have carried out their surveys, then this could be a good starting point for obtaining this information.

2. **Facilitate the movement and safe exchange of germplasm within and outside the region for food security purposes.**

**Activities**

a) **Taro: exchange improved taro lines after virus indexing/survey.**

SPC/TaroGen will work with countries to determine the best way of distributing these lines. This could be through on-farm conservation programmes.

b) **Yams (*alata*): exchange yam lines after virus indexing/survey**

SPC/SPYN will work with countries to determine the best method for distribution of this material.

c) **Breadfruit:** access ex situ collection in Hawaii and facilitate transfer of selected lines into PICs for evaluation. SPC will facilitate the accessing of this collection by countries.

d) **Coconut:** facilitate movement of coconut accessions from countries to ICG in PNG, and from ICG to countries for evaluation. SPC/IPGRI will facilitate through COGENT.

e) **Bananas:** distribution of accessions from INIBAP. SPC/IPGRI will facilitate through INIBAP

- f) **Sugar cane:** Determine the location of PNG sugar lines in world locations and facilitate access to it as needed. SPC/IPGRI to obtain information on this collection and to facilitate access for PNG.
- g) **Development of safe exchange protocols** in consultation with PPPO and national quarantine for important crops of the region.

### 3. **Develop and coordinate documentation of agriculture PGR for information exchange in the network.**

#### **Activities:**

- a) **Make information from all existing crop networks/**other international databases widely available to the region in different forms (CD-ROM, website, hard copies and others) SPC/IPGRI will facilitate this activity.
- b) **Establish a database of all ex situ collections** in the region. National programmes will have to provide information on all collections in their countries.
- c) **Establish and maintain a network website** with appropriate security. This will be implemented by SPC in collaboration with IPGRI.
- d) **Establish a clearing house mechanism** for exchange and provision of information to and from farmers, including Traditional Knowledge

### 4. **Enhance awareness of PGR at the national and regional level.**

#### **Activities:**

- a) **A brochure** on Pacific network developed for policy makers. (Dec 2001).
- b) **Provide information paper** for executive committee meetings (Dec 2001)
- c) **Representation by national coordinators** within the national system. This will require the support of the brochure (a) and the information paper (b).
- d) **SPC promoting the network** in appropriate fora.
- e) **Provide information materials** to stakeholders
- f) **Published articles** on PGR networking in the region
- g) **Generate proposal for funding** at national (coordinators) and regional (SPC/IPGRI) levels (annually)
- h) **Disseminate information** to stakeholders through seminars, and project reports
- i) **Provide information** as appropriate to persons and agencies who can contribute
- j) **Publicise activities and achievements** in newsletters/ newspapers/ TV/radios. National coordinators should try and provide small articles on the planning meeting and the network to these sources. SPC should do the same for the region.
- k) **Develop PGR education kit** in collaboration with Education ministries in the countries. In addition, initiate dialogue with USP regarding the possibility of PGR being available at the undergraduate and postgraduate level, and also as distance learning units.
- l) **Completion of public awareness strategy plans** by the countries

### 5. **Assist with development of policy at the national and regional level to facilitate the access and benefit sharing of PGR**

#### **Activities:**

- a) **Develop an information paper on all relevant IPR options** for the region. This will be done with the support of IPGRI, in collaboration with local expertise.
- b) **Liaison with relevant regional and international organizations** on IPR, and related access and benefit sharing issues.
- c) **Have in-country meetings** to carry out awareness work with relevant stakeholders,
- d) **To determine frameworks** for the harmonization of national and regional policy on PGR

- e) **Circulation of the SPC MTA** agreement to all countries for comments (December 2001)
- f) **Encourage the use of standard MTA** by the PICs in the region.

**6. Assist national capacity building for PGR activities including strengthening of national PGR programmes.**

**Activities:**

- a) **Validate analysis of country needs.** Countries to consult with all appropriate sectors and validate the national capacity building and training matrices compiled during the planning meeting by November 2001
- b) **Develop a regional capacity building strategy** based on the needs of the national programmes.

**7. Source funding that will enable PGR activities to be sustained at the national and regional level.**

**Activities:**

- a) **Analyze current funding support**, and identify funding need based on regional and national priorities. This will be carried out after all of the matrices have been completed and endorsed by the countries, and after in-country meetings
- b) **Develop funding strategy** for support from national, regional and international sources.
- c) **Explore** the possibility of generating funds for sustainability of national programmes

**8. Develop and implement a monitoring system for the PGR network.**

**Activities:**

- a) **Develop an action plan** with milestones and outputs to achieve the network objectives. This activity will be initiated when all participating members of the PGR network have endorsed the action plan.
- b) **Develop case studies** that illustrate impact of network on PGR conservation and use.
- c) **Prepare and distribute annual report** to all network members, Government Ministries, collaborators, and funders.