A Global Strategy
for the conservation and use of Coconut Genetic Resources
2018-2028

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LA RECHERCHE AGRONOMIQUE POUR LE DÉVELOPPEMENT

COGENT
Coconut genetic resources for enhanced livelihoods

Bioversity International

Upgrading COGENT's organization was initiated in 2012 by conducting two organizational assessments and two participative meetings. The composition and the role of the Steering Committee (SC) was modified in order both to increase its stability and to allow other member-countries to fully participate to decision making. The venue of COGENT meetings was fixed as biennial and linked with the COCOTECH meetings of APCC, in order to reduce costs and increase interactions with stakeholders from the coconut value chain. Other innovations are the creation of six permanent International Thematic Action Groups (ITAGS)[21], and the possibility of making decision at distance using two distinct processes, remote consensus and remote voting. Further details on COGENT and its recent reorganization, including a study to explore alternative hosting arrangements for the Secretariat are provided in Annex 4 of this document.

COGENT is currently not funded on a sustainable basis, although Bioversity International and CGIAR were until recently allocating a restricted executive budget to support the activities of the COGENT Secretariat. For more information on COGENT, see the website: www.cogentnetwork.org.

1.1.7 The urgent need for a revised Global Strategy

Since 1991 COGENT has played a crucial role in developing the present global coconut conservation system, which is based on 5 international genebanks collaborating with the 24 national genebanks and other coconut stakeholders worldwide.

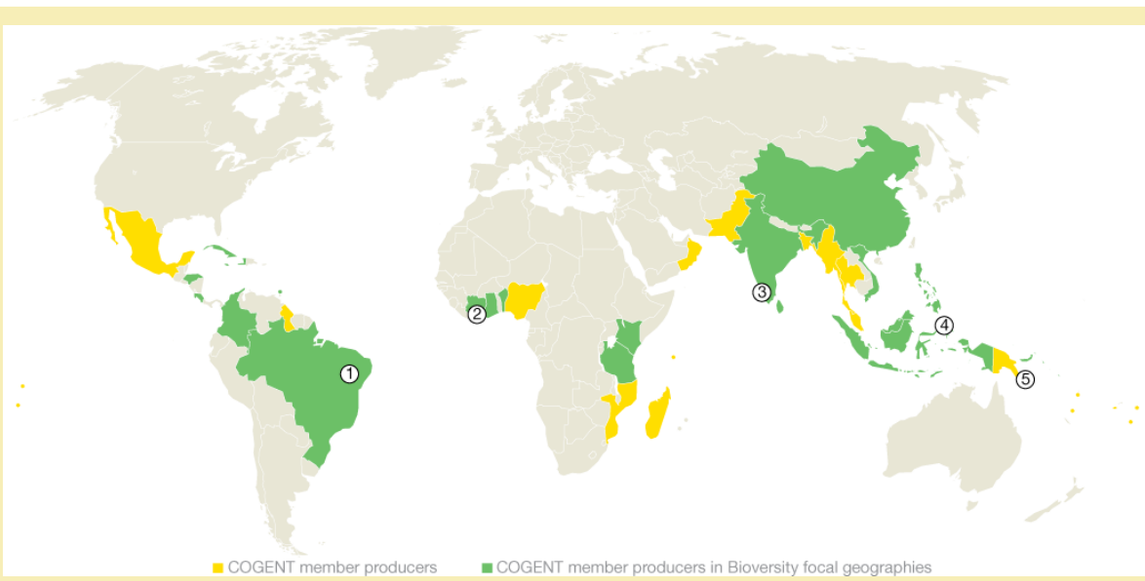

Figure 1.3. COGENT coconut producing countries.

One of the first internationally agreed priorities for COGENT was the development of a Global Strategy for the Conservation and Use of Coconut Resources.

[21] See URL: http://www.cogentnetwork.org/action-groups

Nevertheless, from a pragmatic standpoint, the 2008 version of the Strategy for *ex situ* conservation did not ensure sufficient sustainability to the global coconut conservation system. A COGENT project funded in 2012[22] by the Trust has shown that, among the 24 coconut genebanks participating in the network, 18 do not have the capability for true-to-type regeneration of the germplasm they are conserving. This includes three of the five international genebanks. Coconut *ex situ* conservation is thus facing an emergency situation. As articulated in section 2.3, about half of the many coconut varieties collected in the 1980s are becoming very tall. If nothing is done within a few years, their regeneration will prove impossible using currently available techniques.

Despite the recent coconut industry revival many coconut plantations are senile and unproductive. Most producing-countries cannot meet stakeholder demand for material for replanting programmes. The two-decade lack of investment has resulted in widespread planting of low yielding varieties by farmers, mainly due to the following factors:

- Lack of communication and commitment to conservation and use of coconut genetic resources at local, national and international levels;
- Under-resourced genebanks are lacking budget, manpower, equipment, laboratories and technical training to conduct the controlled hand-pollinations requested for regenerating the germplasm and to implement other activities such as collecting, characterization and breeding. The constraints linked to the biology of the plant make coconut conservation and use challenging and expensive using currently available techniques;
- The safe movement of coconut germplasm remains limited at the global level because of risks of disease transmissions, insufficient funding, lack of quarantine laboratories using efficient and affordable techniques for disease indexing; lack of capacities and the reluctance to share germplasm;
- Lethal phytoplasma diseases are expanding, threatening many farms and genebanks and destroying coconut genetics resources. In 2012, the rapid expansion of these diseases has threatened two international genebanks in terms of releasing germplasm at international level;
- Although the reorganization of the CGIAR system has had strong positive effects, COGENT is still working without long-term, stable and sufficient funding and is having thus a limited action. The current CGIAR conservation system still favours international genebanks directly placed under its authority, as opposed to a networking approach such as COGENT, which gathers 24 national and international genebanks in a global system.

[22] See URL: http://www.cogentnetwork.org/network-projects/past-projects/upgrading-genebanks

The numerous coconut international projects launched by COGENT from 1992[23] demonstrate how multi-sector collaboration and shared priorities can help to set the agenda at national and international levels, aiming at more efficient use of coconut genetic resources to achieve common goals. Nevertheless, project-based activities, together with the past project-based COGENT organization have not been sufficient to ensure a sustainable global coconut conservation system.

Many crop species already benefit from a coordinated approach to the conservation of their germplasm supported by the Trust. This was established under international law in 2004, and was founded by FAO and Bioversity International, acting on behalf of CGIAR[24]. The Trust has established an endowment fund to safeguard *ex situ* collections of unique and valuable plant genetic resources for food and agriculture (PGRFA), with priority being given to those that are included in Annex 1 to the Treaty or referred to in its Article 15.1(b). Coconut is one of the crops listed in Annex 1. Therefore the Trust may offer a route to manage funds designated for coconut conservation.

Funding decisions by the Trust are based on priorities identified and agreed by internationally recognised networks of experts and key stakeholders, which need to be defined in global crop strategies. The Trust has developed priorities and guiding principles for the allocation of funds[25] and a set of specific criteria to be met before a collection will be considered for long-term funding support. These include:

1. the genetic resources are judged to be important within the context of an agreed global conservation strategy, and
2. the collection has effective links to users and is willing to act in partnership with others to achieve a rational system for conserving plant genetic resources and making them available.

Most nations and regions involved in coconut improvement and production are highly dependent on genes and varieties developed and conserved *in situ* and often also *ex situ* in countries or regions other than their own. Most of the efforts needed to manage these resources can therefore only be carried out through international collaboration and the participation of all partners. There is an urgent need for a revision of the former global strategy for the conservation and use of coconut genetic diversity and the dissemination of related information within and beyond the coconut community.

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[23] See the list of projects in Annex 5 and in COGENT website at the URL: http://www.cogentnetwork.org/past-projects/upgrading-genebanks

[24] International frameworks such as both FAO and its Global Plan of Action (GPA) for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture (PGRFA) and the Treaty also call for a more efficient and effective global conservation and use system. This should be based on better planning and more coordination and cooperation, to reduce costs and build conservation and management work on crop diversity on a more scientifically sound and financially sustainable foundation.

[25] See URL: https://cdn.croptrust.org/wp-content/uploads/2017/03/The-Role-of-the-Crop-Trust.pdf