A Global Strategy
for the conservation and use of Coconut Genetic Resources
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LA RECHERCHE AGRONOMIQUE POUR LE DÉVELOPPEMENT

COGENT
Coconut genetic resources for enhanced livelihoods

Bioversity International

would be preferable that these activities will not be implemented in newly built centres, but by adding a coconut component to the facilities already existing for other crops.

As discussed in section 3.3.4 on cryogenebanking, disease indexing centre(s) will be located in the first country(ies) which, in accordance with COGENT and other institutions, will:

- agree to devote appropriate funding to this crucial facility with expected support from international agencies,
- develop consistent research and capability for coconut disease indexing,
- ensure that the germplasm will be kept in trust and safely transferred to recipient countries and stakeholders,
- and preferably also agree to host a cryogenebank.

COGENT will support developing such international quarantine centres in areas preferably (but not necessarily) free from lethal coconut disease.

3.7 Promoting the use of coconut genetic resources

In the light of promoting the effective use of coconut genetic resources, this section considers the following important elements: global objectives in terms of planting material; promoting farmer-produced and certified varieties; germplasm characterization and evaluation; international breeding trials, and the development of coconut clones whenever possible.

3.7.1 Global objectives in terms of planting material

The current status of coconut planting material production has been outlined in section 2.5.1. However, there is a need to assess more precisely the amount, type and quality of the coconut-planting material produced by national institutions, private companies and, especially, farmers. Information regarding the planting material will need to be widely disseminated among stakeholders.

As pointed out in section 2.5.2, farmers are collectively much more involved in coconut breeding and seednut production than scientists are. Farmers produce more than 80% of the planting material by themselves from the varieties they breed and conserve.

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For sure, COGENT does not advocate a situation where farmers become only diversity *users*, and where all conservation and breeding is implemented by national institutions or large private companies, as illustrated by the example of maize in 'Western' countries.

The question of global objectives in terms of planting material has been debated at various levels. Even if COGENT exerts influence on coconut-planting material at global level, its

objectives must be realistic and feasible in a global context mainly driven by market forces. Thus, COGENT will focus on the three following targets:

1. Reach a situation where *farmers will have the choice*. The amount and diversity of planting material should become sufficient to fulfil farmers' needs. At the national level, seednut producers and agricultural services should provide a range of at least six different coconut varieties, including Talls, hybrids, Dwarfs and eventually composite varieties[35]. Most farmers will choose to plant more than one variety.
2. Help farmers to preserve and increase their knowledge regarding coconut palm diversity and breeding. The specificities of each variety regarding environmental adaptation and agricultural practices must be clearly explained to farmers. Farmers and other stakeholders can be trained to autonomously produce quality seedlings, including self-production of hybrids[36] using the *Polymotu* concept or any other adapted method.
3. To better understand the reasons for farmers' and consumers' preferences. Coconut is not only 'agricultural'; it is a highly cultural plant. Profitability and economic aspects are not the sole drivers of farmers' preferences. In India for instance, farmer preferences also embrace the planting material qualities as a cultural entity within a human community (Bourdeix et al. 2008).

In this context the market will continue to play its regulatory role, where farmers will enjoy better control of their business. At the global level, a reasonable objective for the next decade could be to reach in each country the target of a maximum of a third of the planting material produced by national institutions and large private companies (NIPC); and to support farmers in enhancing the quality of their farm-produced planting material.

How long it will take to achieve a third of total planting material to be produced by NIPC depends mainly on market forces. Recently, private companies have strongly increased their involvement in coconut seednut production, notably in India and Brazil. Large companies in Brazil are investing millions of dollars for producing planting material, for optimizing the management of plantations and the processing of the fruits. Such an evolution is foreseeable, in the short term, at least in the Philippines and Indonesia, and potentially in many other COGENT member-countries.

At the end of the next decade, the Strategy plans that, in each COGENT member-country, at least five varieties will be made available as planting material to farmers by national institutions and/or private stakeholders. At least 80% of these varieties will have to be documented in the future online database described in section 3.8.3. The role of COGENT will be to make a balance of the existing and to help countries in developing action plans for reaching this objective.

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[35] As stated in Recommendation 3 of the COGENT SC 2012.

[36] See the URL: https://replantcoconut.blogspot.com.