

# A Global Strategy

## for the conservation and use of Coconut Genetic Resources

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# 1. Introduction to the Global Coconut Strategy

## 1.1 The coconut, a tree of many lives

Emblematic, aesthetic and strange, the coconut palm (*Cocos nucifera* L.) has long been valued by many civilizations, and has been endowed with multifaceted symbolisms and positive cultural references, reflecting its great genetic diversity and multiple uses. A global strategy to conserve such diversity can therefore serve as a basis for its sustainable use. However, coconut's complex biology poses particular challenges for researchers and curators working in both conserving and using coconut genetic resources.

Polynesian tradition tells us that coconut palms only grow well when they can hear the sea or human voices. However, recent agronomic progress has boosted palm yields even when they are a long way from beaches and houses.

At the global level, coconut research remains insufficient with regard to the social, economic and cultural importance of the plant. Coconut is cultivated globally on about 12 million hectares, but countless home gardens also grow a few coconut palms each, to provide food; water and sap to drink; oil for culinary and non-edible uses; leaves for thatching and fencing; sugar, vinegar and alcoholic beverages from sap; timber and wood for construction; fuel from the husk, leaves and shells; materials for artefacts, traditional medicine and ritual purposes; attractive landscaping and shade, both for people and inter-crops. The custodial role of farmers, together with these hundreds of millions of gardeners, was and remains crucial for creating new varieties and transmitting seednuts through their social networks.

The coconut industry is now experiencing an important revival. Although the price of coconut oil and copra remains highly volatile and subject to much speculation, the price of fresh coconuts has greatly increased during recent years. Many farmers want to replant, preferably with high-yielding varieties bred for production of high-value products. Some countries have recently begun to increase their investment in coconut research, although this will take time to produce substantial results. Due to the lack of investment in coconut research over the last 20 years, many farmers continue to plant varieties with lower yield potential than those alternatively available. Higher-yielding planting material is not available in sufficient quantities or at an affordable price. The technical protocols and field management promoting best growth and higher yield are not adequately disseminated among farmers. The case for coconut research needs to be more assiduously made.



Street sellers of the famous coconut variety named « King Coconut » or « Rath Thembili » in Sri Lanka. This variety is mainly used for tender nuts for drinking.

Created in 1991, the International Coconut Genetic Resources Network (COGENT) gathers 39 countries producing more than 98% of coconuts worldwide and hosting 24 *ex situ* coconut genebanks. COGENT's overall goal is to optimize the conservation and use of coconut genetic resources, as the foundation of a sustainable coconut economy (from farmers through research to consumers), by coordinating and strengthening such conservation and related research efforts of a worldwide network of stakeholders.

COGENT has played – and continues to play – a crucial role in developing international projects and in organizing the global coconut conservation system which is presently based on 5 international genebanks collaborating with the 19 national genebanks and other coconut stakeholders worldwide.

The previous version of this Strategy<sup>1</sup> was released by COGENT in January 2008, after an international consultation process which required four years<sup>2</sup>. The need to update this Strategy was highlighted as early as 2009, during a COGENT meeting held in Korea. One of the main limiting factors of global coordination was identified as "*making decisions with incomplete or obsolete information*".

With funding support by the Global Crop Diversity Trust (the 'Trust' hereafter), COGENT's major achievements for 2012 included: an update of the data regarding global *ex situ* coconut conservation (Bourdeix et al. 2012a) and holding the 16th COGENT Steering Committee meeting (Bourdeix et al. 2012b). In October 2012, another important meeting was also organized in Samoa by the Pacific Community (SPC) and the Australian Centre for International Agricultural Research (ACIAR), with participation of COGENT, the Asian and Pacific Coconut Community (APCC) and many country representatives. This meeting contributed to addressing priorities in coconut research and development. Thanks to CGIAR Research Program on Forests, Trees and Agroforestry (CRP-FTA), to Bioversity International, to CIRAD and to all COGENT country-members, this has led to the development of this new Strategy. Coconut is one of the priority crops listed in the Annex 1<sup>3</sup> of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA - 'the Treaty' hereafter). Reasons why coconut research remains insufficient and the possible remedies to improve this situation are comprehensively discussed in this strategy document, with a special emphasis on the conservation and use of coconut genetic resources.

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<sup>1</sup> "A framework for promoting the effective conservation and use of coconut genetic resources developed in consultation with COGENT members and partners". Available at the URL: <http://www.cogentnetwork.org/images/publications/Coconut-Strategy-FINAL-28Jan2008.pdf>

<sup>2</sup> In November 2004, the Global Crop Diversity Trust supported a meeting of the major coconut producing countries to review and update the Strategy and identify priority conservation activities. The updated Strategy was referred to the COGENT Steering Committee (SC), to representatives of coconut growing countries and COGENT partner research organizations, and based on their feedback, a revised draft was produced. The COGENT SC approved the revised Strategy during its meeting in India in November 2005. In December 2007, participants in the International Coconut Genebank (ICG) and National Genebank Curators Workshop/COGENT SC meeting reviewed the Strategy to further rationalize the collections.

<sup>3</sup> Available at the URL: <http://www.planttreaty.org/content/article-xiv>