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Coconut Risk Management and Mitigation Manual for the Pacific Region

Compiled by R. Bourdeix, J. M. Sourisseau and J. Lin

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Prepared for publication by SPC Land Resources Division (LRD), Narere, Suva - Fiji. www.spc.int | +679 33 0733 | lrdhelpdesk@spc.int, and Diversiflora expertise, Montpellier, France | +33 0782824307 | roland.bourdeix@yahoo.fr.

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Compiled by R. Bourdeix [1, 2], J. M. Sourisseau [3, 4], and J. Lin [5]

(1) CIRAD[1], UMR AGAP[2], F-34398 Montpellier, France.
(2) AGAP, Univ Montpellier, CIRAD, INRA[3], Montpellier SupAgro, Montpellier, France.

(3) CIRAD, UMR ART-DEV, F-34398 Montpellier, France.
(4) ART-DEV[4], CIRAD, Univ Montpellier, CNRS[5], Université de Perpignan via Domitia.

(5) Doctoral Researcher in Research Training Group 1666 'Global Food: Transformation of Global Agri-Food Systems" University of Göttingen, Göttingen, Germany.

[1] The French Agricultural Centre for Research and International Cooperation.
[2] Joint Research Unit on Genetic Improvement and Adaptation of Tropical and Mediterranean Plants.
[3] The French National Research Institute for Agriculture, Food and the Environment.
[4] Joint Research Unit on Actors, Resources and Territories in Development
[5] The French National Research Institute for Scientific Research.

23. REPLANTING PROJECTS AND RELEVANT BENEFICIARIES

By R. Bourdeix, D. F. Koelau and A. Nongkas

Description

What are the risks of replanting projects? In many Pacific countries there remains a huge gap between the national objectives in terms of coconut replanting and what is really achieved. Governments sometimes devote important budget to coconut replanting programs, but this does not have the expected results.

Occurrence and severity: *The 'bad' list.*

According to Fink (2002): '*Corruption in agricultural production poses problems for large and small landholders around the globe. Corruption issues affect land title and tenure, credit availability, quality of supplies, water allocation, marketing, and the development of agribusinesses'*. Rural societies depending on survival agriculture are affected proportionally more by corruption as the bribes paid by stakeholders generally impact a higher percentage of their income.

When considering the global cost of the whole development program and the final number of coconut palms, the average cost is often more than 10 USD per palm remaining alive in the fields. This situation can result from different types of malfunctions. What follows is a kind of 'bad list' of all that should be avoided.

In the research station, a large block of old selected coconut palms remains, but nobody remembers where they came from, who planted them, how and why. These palms produce plenty of coconuts that are taken or stolen by workers or other people. So, these coconuts are not available as seednuts, which are instead bought from farmer's fields. The choice of farms that provide the seeds is dubious. No studies are conducted to estimate the real value of their seednuts. The criteria for choosing seednuts suppliers are mainly social or relational; or the farms closest to the nursery are simply chosen.

The selection of seednuts in the farms is inefficient, or even counterproductive: seedlings already sprouted from too small nuts are forgotten in the plantation; too many selected mother palms (50 to 100% of the existing) jeopardize selection efficiency; choice of Dwarf x Tall hybrid as parent palms, mistaken for highly productive Tall-type coconut palms; choice of the largest nuts taken from the harvest heaps, which will give progenies producing a small number of large fruits and low yield.

Seednuts harvested and sold by farmers are not picked up in time: some germinate, others dry out or rot before they are transferred to the nursery.

The methods used for nurseries are obsolete or unsuitable: Only 25 to 40% of seeds germinate instead of the expected 70% standard. The watering of the nursery is irregular or non-existent. The plants develop in a rickety way. They sometimes catch diseases, which are transmitted to the estates of farmers who come for picking seednuts.

The only type of seed offered is a Tall-type variety, certainly resilient but whose yield is genetically limited. Farmers, however, are also asking for seeds of hybrid or dwarf varieties. When they ask for hybrids, instead of giving them true ones, the nursery gives seednuts

harvested from hybrids. These seeds will give a heterogeneous mixture less productive than true hybrids. The false belief that hybrids are bad varieties is reinforced by this practice.

Seednuts or seedlings are given to farmers free of charge, without recipients being registered in a database, which would allow them to be found and re-contacted. No monitoring of the plantation will be carried out. Farmers who received these seeds and seedlings for free will not take care of them. More than half of the donated seeds and seedlings will rot without being planted or get overgrown where they were placed after obtaining them from the nurseries. In the end, less than one-fifth of the seeds purchased from farmers will yield new live coconut trees on farms.

Well-established coconut farmers do not take seeds from this nursery because they do not trust it. Only new farmers, or some farmers cultivating other crops, come to take coconut seednuts. They will use nuts only to feed their families and animals. Their harvest will not benefit the local coconut industry.

Hopefully, there is a not a country where all these factors occur together. But, during the visit conducted in 2018 for CIDP project in the Pacific region, at least one element of this bad list was observed in almost all visited countries.

Mitigation and adaptation

Observations made in Fiji and Solomon Islands seem to indicate that the process runs better when an already installed private company is involved in seednuts distribution. In this case, seednuts and seedlings are provided as a priority to the suppliers of the company. This strongly increases the probability that the new planting will benefit the coconut industry.

Other farmers should not be neglected, and in particular the youth. A recent paper tried to explore possible incentives to boost coconut production, but a lot remains to be done in this area. As discussed in another section of this manual, ppromoting joint private and public sector partnership on these replanting activities can help to enhance their sustainability.

There is an example from Fiji where coconut seednuts were distributed only to sugarcane growers, who use it mainly to plant all around their sugarcane fields. Those farmers presently use the coconuts only for self consumption and feeding their animals.

Setting financial incentives and distributing seedlings to farmers who do not want to plant coconut might be useless. There is a high risk that those farmers will take the incentive given for planting, take the incentive give for palms remaining alive 6 or 12 months later, but will not care anymore about these plantations when all incentives have been received.

Given the emerging risks to the coconut industry and need for large scale replanting, the group at the first Nadi meeting recommended that more dedicated resources be focused on coconut planting material, seed systems, and plantation management. In small island developing states, at least one research and one extension officer should be dedicated only to coconuts. Larger countries should consider the establishment of separate units within their Ministries with a team focused on coconuts.

Corruption in agriculture can be mitigated through careful project selection and good project implementation procedures. Fink (2002) proposed a methodological framework to fight corruption, which he referred to by the letters TAAPE, which stands for: Transparency, Awareness, Accountability, Prevention, and Enforcement.

Actions to undertake

Although not very encouraging, the example (given above) of sugarcane growers in Fiji may require further reflection. Indeed, these farmers do not feed the coconut industry. On the other hand, even if it takes time, maybe some of these sugarcane growers will be more and more interested by coconut; and maybe some will shift, at least partially, from sugarcane to coconut cultivation.

A better method to convince these farmers would be to establish coconut demonstration plots and manage them the way it is done in Brazil, Thailand and Sri Lanka (see description in the section devoted to coconut cultivation). Old, irrigated sugarcane plots are the best place to install such demonstration fields. Communication campaigns to promote coconut as a high value crop will also help to convince farmers.

As an example, the National Coconut Replanting program in PNG will revolve around the regional resource centres and model farms, using a model conceived on cocoa that worked well. Each model farm will serve a group of farmers with a minimum membership of 25 female and male farmers. Elite farmers or group leaders will be owners and managers of the model farm. Coconut nurseries and demonstration plots will be established at the regional resource centres as well as at the model farms. Establishment of nurseries will go hand in hand with awareness on the coconut replanting program which will include both block rehabilitation and new block development. During the awareness campaign data on interested female and male farmers will be collected and this will determine the number of seedlings to be raised at the nurseries. In some provinces, seednuts will be given free while in others, where coconut development is well established, the seedlings will be sold at about 0.5 Euros. The supply of seedlings at the model farms will first target their own members. Other interested farmers outside of the groups will be given second priority.

An index of efficiency of coconut replanting projects could be created. As a first step, this index could be calculated by dividing the number of palms planted and standing in the fields to the total amount invested in the project. A standard value of this index should be established; in first estimation, all included, a good project should not spend more than USD 8 per coconut palm planted and alive at the end of the campaign.

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