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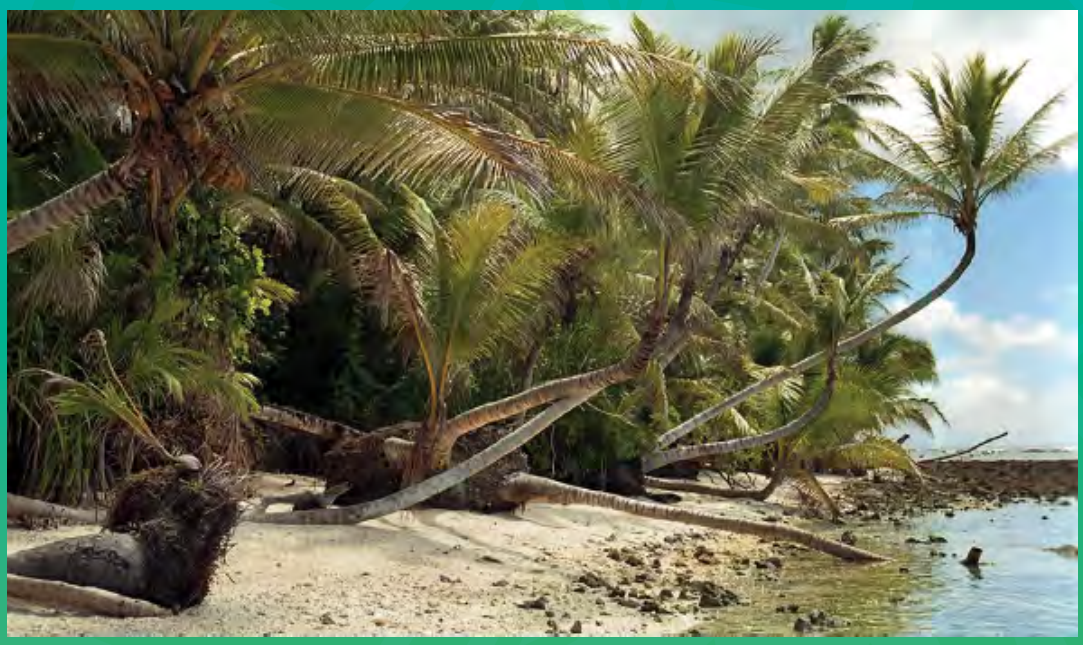
Coconut Risk Management and Mitigation Manual for the Pacific Region



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17. TRADITIONAL AGRICULTURAL KNOWLEDGE AND PRACTICES

By R. Bourdeix, S. Ratu and P. Visintainer

Description

The risk is that, if traditional agricultural knowledge disappears, techniques perfectly adapted to local conditions will be lost, replaced by modern and standardized ones. The most efficient agriculture would be obtained by studying, understanding and recording traditional knowledge in its local context, and merge it with modern techniques when needed.

Traditional knowledge has been slowly developed by farmers over millennia. Such knowledge is generally adapted to local contexts but tends to be replaced by modern and standardized agricultural methods. There is a risk that the useful traditional knowledge and practices will be lost because of cultural changes and globalization. In fact, this is already happening but, as it is happening increasingly, it remains a risk.

This risk is concerning not only knowledge but also practices, which are even more challenging to record. When observing traditional farmers, agricultural officers and scientists often find that they undertake very specific agricultural actions. When the farmer is asked why they are doing this, they often reply that they do not know, that they are only repeating what their parents have taught them, or that the reason is mystical or religious. Technicians sometimes ask the farmer to modify this action. This sometimes triggers disasters. It is only when things go wrong that, sometimes, scientists start to understand the reason for farmer's traditional practices.

The sharing of knowledge within a society is a crucial social and cultural fact, positively impacting cultural richness and reinforcing social structures. In traditional societies, vertical (parent to child) transmission of knowledge is by far the most important mechanism, generally accounting for more than 80% in the cases studied.

Occurrence and severity

Regarding preservation of local agricultural knowledge in the Pacific region, an early approach was to better understand the biological, social and historical dynamics which shape coconut biodiversity and its uses. A diachronic historical approach was developed. In many islands, the same kind of dynamics seem to have occurred. In the 1800s, Pacific families had each a limited number of coconut palms, but there existed many coconut landraces serving widely differing purposes including: food and drink; making ropes and containers; medicine; building houses, and braiding. Between 1800 and 1950, coconut and copra became a huge colonial business. The number of coconut palms in the Pacific region multiplied 60 to 100 times. During this period, the agricultural landscapes and practices were profoundly and brutally modified. Many islanders were forced to work in coconut plantations and in the copra drying ovens. On many islands, the population was decimated by diseases imported by Europeans, such as measles. Let’s imagine living in a village, with no book and no computer, and that more than 90% of the villagers die within a short period. How much traditional knowledge will survive?

Nowadays, societies are quickly evolving and standardizing. Urbanized citizens have plenty of electronic appliances, vehicles, clothes etc., but most of them no longer take care of living

beings, except their families, their friends and perhaps a few pets. People are saturated with too much information. They know hundreds of varieties of cars, cell phones, clothes and music. A few farmers and some gardeners may continue to pay attention to crop varieties. Traditional agricultural knowledge continues to disappear.

Sharing knowledge is sometimes perceived as losing both identity and prerogatives. When researching in French Polynesia, it appeared clearly that, in the present situation, some ethnic groups in Tuamotu would prefer the traditional knowledge to be lost than to be shared with strangers.

Conflict and incompatibility with scientific knowledge may lead to the disappearance of traditional knowledge. For instance, in French Polynesia, farmers apply three distinct classifications as 'male and female' to their coconut palms and seednuts (Bourdeix et al., 2013). From a scientific point of view, the coconut inflorescences all include both male and female flowers but more than 80% of the interviewed farmers did not know this. Although the farmer's representation does not fit the scientific knowledge, there are good reasons to think that farmer's classification is useful from a pragmatic point of view and serves them to efficiently select and breed their crop. In this situation, imposing the scientific knowledge on farmers without care may have a destructive effect on some of their useful traditional practices. On the other hand, acquiring scientific botanical knowledge may help farmers produce better varieties by themselves.

Mitigation and adaptation

Saving traditional knowledge in books is useful. But it sometimes leads to a kind of mummification and a loss of 'traditional flavour'. Here is a surprising story on taro varieties in Vanuatu. An ethnologist visited a farm and observed that the farmer was using a very large number of taro varieties. No agronomic reason could justify this very high number. Five or six varieties would have been sufficient to cover all the needs. When questioning the farmer, the ethnologist discovered that the reason for conservation was cultural. Each variety of taro was associated with a legend or the history of a clan. Happy with her discovery, the researcher decided to interview all the farmers. She carefully collected all the legends related to taro varieties. She published a book in local language and offered it to all clan leaders, who were happy with it. A few years later, she returned to visit the first farmer. She observed that his number of Taro varieties had strongly declined. 'Why don't you conserve these anymore?' The farmer replied: 'There is no need, as all the stories are now written in your book'.

'Knowledge must be accessible to all' is a belief and a will held by Western societies, and not shared by all ethnic groups. Scientists should not impose their scientific knowledge, or cultural assumptions, without first studying the traditional knowledge their actions may destroy.

Video is the medium closest to the traditional oral transmission of information, as you listen to and see the people. Video thus creates a useful link between tradition and modernity. The best way to record the traditional knowledge of old people is video. Good video cameras are available for 200-300 USD. Simple free software is available that allows video editing. A good example of such an approach is the movie prepared in 2018 by the CIDP in the Cook Islands (see below).

Actions to undertake

- Educate farmers on the importance of collecting and preserving traditional knowledge for the benefit of community and for the future generations.
- Encourage farmers to share traditional knowledge with other farming communities.

- Collect and publish traditional knowledge available in the Pacific.
- Promote selected important traditional knowledge.
- When conducting surveys on traditional knowledge and varieties, focus on individual interviews and never use as the first approach the fast 'participatory mapping method' based on group interviews. This can potentially destroy the social division of knowledge in the group. Some village people would refuse to share or might even lie.
- Systematically include in development projects the purchase of video cameras and one-day training on basic filming and video editing.
- Release videos online in a way they will remain available even if the video maker dies. Currently YouTube is a very useful medium for sharing such videos.

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