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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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LRD
Land Resources Division

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32. THE PROFITABLE BUSINESS OF AROMATIC COCONUT WATER

By R. Bourdeix, L. Perera and J. L. Konan Konan

Description

The risk is that farmers from the Pacific region will continue to be side-lined from the most profitable coconut growing methods and the most valuable varieties. These farmers will then remain in poverty while, in other countries, some coconut farmers get richer and richer while cultivating the varieties adapted for the most profitable markets.

In the 1950s, Thai growers identified a variety of coconut for water consumption that carries a special fragrance and named it *nam hom.* In 2010, the Thai Government decided to consolidate the 'Aromatic Coconut' as a new agricultural industry and separated it from the traditional coconut industry. In 2016 - 2017, the price paid to farmers was 6-8 baht per *nam hom* coconut (0.15 to 0.21 Euros) during the high season and up to 15 baht (0.39 Euros) during the low production season. In fact, it was 8 baht at the end of 2017 (nuts brought by farmers to the factory), but in August 2018, the price reached 17 to 18 baht (at least), and factory trucks were coming to the fields to pick up the tendernuts.

About 2 million young *Nam hom* coconuts are harvested per day in Thailand, one million go to 'diamond coconut' sold in the country or exported, and another million go to the bottled coconut water industry. There is a strong concurrence between the two sectors. Diamond coconut is not organic (no need for the market) while bottled coconut water try to go organic.

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Plate 21. Seed production by Thai farmers in a plantation managed with the canal system.

Coconuts contains 320 ml of water in average, but this can be as low as 240 ml if appropriate fertilizers are not applied. So, the price paid to Thai farmers is about 1.4 Euros per litre of coconut water, while the same aromatic coconut water is sold for more than 10 Euros per litre

on the USA market. On Amazon.com, 12 bottles of Harmless Harvest Organic Coconut Water, (5.7 litres), are sold for 148 Euros, so about 26 Euros per litre (viewed on 20 August 2018).

Most coconut plantations produce 140 to 240 tendernuts per palm per year. The return is said by local stakeholders to be about 1,000 Euros per hectare. When calculating based on 200 fruits per palm, 200 palms per hectare, and 10 baht per fruit (0.26 euros) per fruit, the gross income is up to 10,400 Euros per hectare – so the return may be much more than 1000 Euros per hectare.

Most plantations are organized with a canal system between the coconut lines. After harvest nuts are thrown into these channels, which are used for transportation. Organic waste (leaves, raffles) is also thrown into these channels. During the dry seasons, mud and organic matter are extracted from these channels, either manually or with a machine, and deposited at the foot of the coconut trees to serve as fertilizer. Additional fertilization is carried out with a mixture of rice straw and chicken droppings at a rate of 20 to 40 kg per tree per year.

In 2018, Chumphon Research Centre was producing only 2,000 hybrids and 40,000 Aromatic Green Dwarf seedlings. All are already reserved and paid for the next 3 years.

Occurrence and severity

Some Thai farmers are becoming millionaires by cultivating coconut, while many Pacific farmers remain poor by cultivating the same plant. The price of agricultural land dedicated to coconut cultivation is said to reach more than 100,000 Euros per hectare in Thailand.

Mitigation and adaptation

The Thai coconut cultivation method using canals seems to be performing well. This greatly reduces the risk of drought and makes harvest and transportation much less difficult. On the other hand, this method may not be suitable for most Pacific countries as they do not have freshwater systems. It is still very difficult to predict what can trigger innovation transfers. For instance, parasites or diseases that do not exist in Thailand may develop in the stagnant water of the canals. Such innovation transfer would need a high level multidisciplinary team, including human health specialists.

As an example of such complexity, the development of a large zone of rice field in Burkina Faso (Africa) led to a considerable increase in the number of *Anopheles* mosquitoes, vectors of malaria. However, in this case, the ethology of the mosquito, doubled with preventive measures (mosquito nets for sleeping) have made the transmission of malaria to humans lesser in comparison with the surrounding villages.

Even if innovation is risky, we should try. At least two demonstration plots should be installed in the Pacific region.

Actions to undertake

Regarding very high value coconut products, such as aromatic water, marketing actions are as important as the intrinsic quality of the product.

There is a global lack of research on aromatic coconuts, and absolutely nothing is presently done in the Pacific region. It is pretty certain that such aromatic coconuts – or coconuts having another specific good taste – exist in the Pacific region. It may be found in the populations of

Tall-type coconut palms, or in the populations of Compact Dwarfs selected by Pacific gardeners for their daily food, or among the varieties introduced in the past, legally or not.

Another option would be to introduce the aromatic coconut in the Pacific region, but this raises quarantine issues. Many countries (of which Thailand, Malaysia, and Vietnam) have banned the export of *nam hom* seednuts to protect their market. The few palms existing in Côte d'Ivoire are presently being multiplied to produce more seednuts.

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Plate 22. Easy transportation of coconut in a plantation managed by the canal system.

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