

Coconut Risk Management and Mitigation Manual for the Pacific Region



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

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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) CIRAD¹, UMR AGAP², F-34398 Montpellier, France.
- (2) AGAP, Univ Montpellier, CIRAD, INRA³, Montpellier SupAgro, Montpellier, France.
- (3) CIRAD, UMR ART-DEV, F-34398 Montpellier, France.
- (4) ART-DEV⁴, CIRAD, Univ Montpellier, CNRS⁵, 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.

40. CONSUMER INTEREST IN COCONUT PRODUCTS

By R. Bourdeix, A. Auroyé, and A. Pirmansah

Description

This risk is that the present upturn of consumer demand for coconut products may be only temporary, as a fad. After a euphoric period, the market would collapse and decrease in volume and price, to the detriment of both producing countries and the coconut sector.

The current upturn in coconut products is not the first. We are currently experiencing the second economic boom of the coconut palm. The first one started around 1830 and ended in 1930. Analysis of the past is crucial to understand the present and prepare the future.

Occurrence and severity

From the 1960s, the lobby by soybean producers financed extensive communication campaigns against coconut oil. Caricaturing, the lobby funded studies by unethical scientists who engorged rats with considerable amounts of coconut oil, totally unrealistic for health studies. Then these scientists found that the rats were unwell. They published these results in very serious scientific journals. Certain press, funded by the lobby, widely disseminated the results. The same lobby also funded a campaign denouncing palm oil—another competitor of soybean oil—as carcinogenic. Nowadays, in some Pacific countries, supermarkets are still selling imported soybean oil cheaper than coconut oil. This is mainly due to subsidies given to US farmers by their government.

This trade war occurred in various ways of which few are officially known. For instance, in the 1950s, according to K Maramorosch, the whole technical assistance program for Cadang-cadang disease in the Philippines was abandoned under the pressure of the soybean and corn oil lobby groups.

Misinformation is continuing; The Harvard professor's assertion that the oil is like 'poison' is just one more battle in the coconut oil wars, using scandalous and mistrustful means. Any food that is beneficial to health, if consumed excessively, can become harmful. However, this attack will not affect the crude oil industry and coconut cosmetic products, which are the main outlets for the copra sector.

Any food industry seems doomed to failure if it neglects the continuous and continuing development of new products. Our markets live in a sea of food and persuading people to eat new coconut products means they have to stop eating something else.

Mitigation and adaptation

Understanding the past

Before 1830, European imperial powers did not trade extensively in copra, the dried meat of a coconut. Within hundred years, however, demand for copra would make it one of the most extensively traded agricultural goods throughout the world. Copra's rise as a necessary import within the western world was a result of industrialization, war-time experiences, and the importance of fats and oils for food, feed, and the raw material for industry. It seems that the first copra boom was linked, at least partially, to the fact that European people started to wash themselves. The greatest demand for coconut oil and copra came from manufacturers of soap.

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In Great Britain and Ireland, the annual consumption of soap products per head quadrupled between 1801 to 1891.

Oils are called 'concretes' when, like coconut oil, they solidify below 15 °C. Lauric concrete oils (coconut palm, oil palm kernels) are mainly used for soap and cosmetics in Europe or North America. These concrete oils are widely used for food in tropical countries and increasingly so in Western countries.

A disruption of the relative positions of the main oilseed crops took place in the second half of the twentieth century. These changes included:

- The end of the predominance of fats of animal origin; the successive emergence of soybeans (1950s in the US, then 1980s in South America), palm oil (1970s), sunflower and canola (1980s), these four oils representing in 2000 more than 77% of the world production of vegetable oils. Global trade has focused on a few dominant products.
- The relative decline of peanut oil and especially coconut oil, which ranked first in the world in vegetable fats until the 1930s.
- Since the 1980s, the vegetable oils sector has seen many upsets: the arrival on the world market of massive volumes of palm oil, the ups and downs of the debate on the health threat posed by Trans fatty acids, the tropical oils controversy, and the progress made in producing new oilseeds as transgenic rapeseed, etc.

Soybean was first cultivated for animal feeding, the soybean oil being almost a by-product. Palm kernel oil, obtained from oil palm kernels, is also a kind of by-product when compared to the oil from the red oily palm husk. International prices of palm kernel oil and coconut oil are generally highly interdependent because of their high lauric acid content. Western countries did not have any crop producing lauric acid. To reduce their dependency on imports, they created transgenic rapeseed and canola.

Preparing the future

Even if coconut oil has serious competitors, the food and non-food uses of lauric oils are expanding. This has resulted in market growth and increase in production. The variability in production volumes, especially coconut oil, affects the movement of prices. Some economists think it is the root cause of the sharp fluctuations observed. These fluctuations are perceived as a risk by users and processors, who turn to competing products whose supply is more regular. The consequence is that the real demand oscillates around a low level. These oscillations are perceived, in turn, as a risk by the farmers, who sometimes hesitate to invest in coconut cultivation.

Actions to undertake

Diversification of coconut products should be pursued, together with the expansion or creation of new high value-added markets. In this way, even if the demand for a specific coconut product diminishes, stakeholders can easily shift to another market. This could be the case, for example, regarding coconut water and desiccated coconut. In this case the selected coconut varieties should be sufficiently versatile to support various uses

Contrary to the soybean lobby, ICC (ex APCC) has entered the commercial oil war with a relative 'fair play' and positive attitude. They promoted the healthy aspects of coconut oil without communicating the negative properties of other competing oils. This is a good start. The slogan 'Don't wash with transgenic' could be an efficient campaign to promote natural

lauric oil instead of transgenic colza and canola oils. As Palm oil is already impeded by the negative feelings linked to oil palm, coconut oil will remain the main natural source of lauric acid. Such campaigns could be also dangerous: it remains difficult to assess the consequences of launching another commercial war.

Coconut water is the only drink that can be stored and transported in its own natural and sanitized container, the coconut shell. In the long run, it may seem illogical to extract this water for packaging in plastic. The partially chopped tendernuts called 'diamonds' still have too much 'wrapping' (the white husk). Some manufacturers have proposed a better method, by pre-cutting the shell over part of its thickness, and gluing a pull tab that makes it easier to open the fruit. They sell their husked drinking coconut at 4.5 euros in European supermarkets, which seems still too expensive to attract a large volume of consumers.

Recent changes regarding the coconut image may impact the global representation of tropical countries when compared to temperate climate countries. Coconut is the main symbol of the tropics, and its image is changing from 'Holiday and comics' to 'Natural and healthy'. On the other hand, Western countries are more and more seen as polluted places and the main contributors to pollution and global warming. Promoting coconut products can also impact the tourism industry, because the healthy reputation of the coconut palm extends to the countries where coconut is growing. Communication and marketing strategies of Pacific countries should consider and strengthen this symbolism.

Coconut field work remains too hard when compared to other oil crops. All must be done to help farmers reduce this burden. It is expected that this manual will be a small step forward in the right direction.

References

Cerepak, P. (2016). *Coconuts*: Catalysts of Conflict. http://edgeeffects.net/coconuts-conflict Genuine Coconut Company (2018), Organic Raw coconut water and flesh easy to open and 100% biodegradable. https://genuinecoconut.com/fr/contact/.

Dayrit, C. S., & Dayrit, F. M. (2017). *Coconut oil: from diet to therapy*. Anvil Publishing, Inc. Jackman, H. H. (2017). *Copra marketing and price stabilization in Papua New Guinea: a history to 1975*. Canberra, ACT: Development Studies Centre, Research School of Pacific Studies, The Australian National University.

Maramorosch, K. (1991). Viroids and Satellites: molecular parasites at the frontier of life. CRC Press. Morgan, W. (2013). Growing island exports: High value crops and the future of agriculture in the Pacific. *Crawford School Research Paper*, (05).

Ribier, V., & Rouziere, A. (2000). Replanting coconut plantations: myth or reality? *Oléagineux Corps gras Lipides*, 7(2), 182-188.

Voituriez, T., & De Nucé De Lamothe, M. (1997). L'avenir contrasté du marché des huiles lauriques. *Plantations, recherche, développement, 4*(6), 378-382.

Young, H. S., Miller-ter Kuile, A., McCauley, D. J., & Dirzo, R. (2016). Cascading community and ecosystem consequences of introduced coconut palms (Cocos nucifera) in tropical islands. *Canadian Journal of Zoology*, *95*(3), 139-148.