

# A NUT TO CRACK A GROWING PROBLEM

A DISPUTE OVER WHO OWNS A SMALL INDIGENOUS NUT FOUND IN THE SOLOMON ISLANDS THREATENED TO HALT RESEARCH INTO DOMESTICATING THE NUT FOR FOOD. **JAY SANDERSON AND BRAD SHERMAN**, AUSTRALIAN CENTRE FOR INTELLECTUAL PROPERTY IN AGRICULTURE, UNIVERSITY OF QUEENSLAND

In the Solomon Islands a small nut with a lot of potential is at the centre of both an ACIAR project and a dispute (separate from the project) over its use. The ngali nut, found on the *Canarium indicum* tree and other *Canarium* species, is indigenous to the Solomon Islands and Papua New Guinea. In both countries it is a valuable food source.

The ACIAR-supported research is examining the feasibility of domesticating the tree and nut in the Solomons, PNG and Australia. Domestication could result in commercialisation, offering smallholders a valuable income source.

Cropping of the nut in the Solomons has been limited. It is collected mainly for use as food or, through its oil, a medicine applied for pain relief.

And therein lies the rub, for a recent patent has been taken out in several countries to use ngali nut oil as part of an arthritis relief preparation.

As with all patents, the ngali nut patent provides an exclusive right to prevent others from making, selling, distributing or using the invention without licence or authorisation for a fixed period of time (usually 20 years). In return, the patent application allows others to use the invention in return for royalties.

The scope of protection offered by the patent is determined by what is outlined in the patent. The key claims of the ngali nut patent centre on the use of the ngali nut oil as a form of therapy for arthritis and similar conditions (such as rheumatism, osteoarthritis and rheumatoid arthritis). The patent also covers the relevant composition of the preparation.

While the patent identifies three *canarium* species and four countries (Solomon Islands, Vanuatu, PNG, and the Philippines), it is also broad enough to apply to all other varieties of canarium grown in other parts of the Pacific and Asia. It also applies to any hybrids that may be developed in the future.

Concerns over the impact of the patent, and more importantly how to protect indigenous species from further exploitation, had the potential to become a problem for the ACIAR project's activities in the Solomon Islands.

While the ngali nut patent did not have a direct impact upon the planned activities, officials were worried about domestication and its broader consequences.

To help shed light on the issues, a two-day workshop was organised in Honiara in August 2004. A number of issues emerging from the ngali nut patent were discussed, including possible strategies the Solomons Government might adopt in response, as well as exploring the impact it might have on future research undertaken in the Solomons.

A range of experts, stakeholders and locals came together through the workshop, funded by ACIAR, to discuss the issues of ownership and intellectual property rights and issues and concerns regarding the fledgling ngali nut industry. The idea of such a workshop prior to undertaking research was so successful that it is now considered by many of the participants as a model for bio-prospecting of indigenous biological resources.

One of the complaints raised by participants at the workshop was that ngali nut oil has long been used as a traditional form of pain relief in the Solomons. Concerns were also raised about the broader impact the patent may have on foreign investment in the fledgling ngali nut industry in the Solomons. Participants also raised concerns about the adequacy of existing laws to offer protection from biopiracy and the misappropriation of traditional knowledge.

The controversy over the ngali nut patent is the latest in a string of disputes where traditional remedies, foodstuffs or knowledge have been patented by non-traditional parties.

Recent examples include the patenting of inventions based on turmeric (India), neem (India), and amla (India, Sri Lanka, Malaysia and China). These are important



**Market value:** Ngali nuts for sale at Kokopo market (left), not only a valuable food source, but potentially a valuable income source.

PHOTOS: ROGER LEAKEY, JAMES COOK UNIVERSITY

**Galip nuts:** from the ngali nut tree can be eaten raw or roasted and are a high source of protein.



as they offer some insight into the issues the Solomons Government faces in shaping a response to the ngali nut patent.

Most attempts to have patents for traditional remedies revoked have largely been unsuccessful. One notable exception is the controversial patent granted by the US Patent Office in 1995 on the use of powdered turmeric (*Curcuma longa*) for wound healing. The patent, granted to researchers in the United States, covered oral and topical use of turmeric powder to heal surgical wounds and ulcers.

After a year-long legal battle with India's Council of Scientific and Industrial Research, the US Patent Office withdrew the patent – based on the argument that turmeric, a native Indian plant, had been used for centuries for wound healing and as such, lacked the 'novelty' required for patenting.

The Indian case was supported with documents ranging from scientific publications to books on home remedies and ancient Ayurvedic texts on Indian systems of medicine. Some of these references, written in Sanskrit, Urdu and Hindi, were more than 100 years old and showed that turmeric had long been used for the healing of wounds in India prior to filing of the patent.

One of the chief problems facing the Solomons Government if it decides to challenge the ngali nut patent, is that it needs to be able to provide evidence that oil of the *canarium* species (ngali nut) has been topically applied by local Solomon Islanders for pain relief. If this can be established, the patent may be revoked on the basis it is not an invention, a necessary criterion for a patent.

American patent law does not recognise prior art unless it

is in a written form. The difficulty of establishing prior use of the invention in a way that satisfies the US Patent Office (as well as other patent offices throughout the world), combined with the inevitable costs that will be involved in challenging the patent, may mean the Solomons Government will decide not to challenge the patent.

The ngali nut patent is likely to lead to the Solomons Government, and others in the region, to look more closely at the laws they have in place to protect traditional knowledge and plant genetic resources. It may also prompt modifications to existing laws to ensure that similar problems do not arise in the future.

One option is to implement the access and benefit sharing agreements as set out in the Convention on Biological Diversity. Another would be to ensure that it is a condition of patentability that applicants enter into benefit sharing agreements with relevant parties and that they disclose the geographical origin of any plant genetic resources used in their inventions.

These issues are particularly timely, given that as a signatory to the Trade Related Intellectual Property Rights Agreement of the Convention on Biological Diversity, the Solomons, along with many other countries in the Asia-Pacific, must introduce new laws in relation to intellectual property protection for plant-based inventions by 2006.

While the ngali nut patent may have created a number of short-term problems, it may have some unexpected long-term benefits for people in the Solomons, as well as those wishing to undertake research there in the future – both through the ACIAR project and the workshop on intellectual property.

## PROJECT:

FST/2002/010:

Domestication and commercialisation of multi-purpose indigenous trees and shrubs for food and other products in Papua New Guinea, the Solomon Islands and Queensland: a feasibility study with special reference to *Canarium* nut

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## In a nutshell

Ngali nut is found on the *Canarium* species of trees, varieties of which are indigenous throughout the Solomon Islands and Papua New Guinea (where it is known as galip nut). In Indonesia it is called Java almond, and is also grown in Vanuatu, the Philippines, South India and Sri Lanka. The nuts are prepared by soaking in water for two to three days, after which the pulp is removed, usually by hand. Nuts are then sun-dried and bagged for storage. Kernels are hand removed and washed in warm water to remove the seed coating. They can be eaten raw or roasted. Ngali nuts are highly prized as a food source in Melanesia, providing a source of protein and an important role in food security, particularly in the Solomon Islands and PNG where the *canarium* tree is sometimes domesticated.

**CROPPING OF THE NUT IN THE SOLOMONS HAS BEEN LIMITED. IT IS COLLECTED MAINLY FOR USE AS FOOD OR, THROUGH ITS OIL, A MEDICINE APPLIED FOR PAIN RELIEF.**