

KAVA, KASTOM AND INDIGENOUS KNOWLEDGE: NEXT STEPS UNDER THE NAGOYA PROTOCOL

DANIEL ROBINSON
MARGARET RAVEN
TRINISON TARI
FRANCIS HICKEY
DONNA KALFATAK

INTRODUCTION

This paper considers the new impetus under the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity*¹ (CBD), to encourage recognition of customary laws and community protocols relating to genetic resources and associated traditional knowledge. While the Nagoya Protocol often has ambiguous language and its provisions on traditional knowledge have been criticised as fitting under the CBD's 'sovereign rights' framework;² it does open up new legal opportunities for the recognition of customary law and governance within state law structures.³ These add to the more substantive rights recognised in the *United Nations Declaration on the Rights of Indigenous Peoples* (2007) such as Articles 9-12 and Articles 24-25.

The Nagoya Protocol explicitly encourages country Parties to take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources (Article 12.1), and encourages support for the creation of community protocols Art. 12.3(a). In the Pacific there are several countries that have signed and/or ratified the Nagoya Protocol: Vanuatu, Federated States of Micronesia, Fiji, Samoa, Marshall Islands and Palau. While there has been considerable legal analysis done on

¹ *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity* (2010).

² Harry, D., 'Biocolonialism and Indigenous knowledge in United Nations discourse' (2011) 20 (3) *Griffith Law Review* 702-728.

³ Robinson, D. F., & Forsyth, M. 'People, plants, place, and rules: the Nagoya Protocol in pacific island countries' (2016). 54(3) *Geographical Research* 324-335; Bavikatte, K., & Robinson, D. F. 'Towards a people's history of the law: Biocultural jurisprudence and the Nagoya Protocol on access and benefit sharing' (2011) 7 *Law Env't & Dev. J.* 35.

the potential legal processes for implementing the protocol and for protecting traditional knowledge⁴, our research focuses typically on the translational space between policy-making, implementation, and local community desires and impacts. Given the prevalence and relative strength of customary systems in the Pacific there is considerable opportunity for the documentation and recognition of customary law, compared to some other regions/countries. This paper highlights patent activity relating to Kava (*Piper methysticum*) and concerns that might arise from this. In relation to Kava, this paper then considers efforts being made under the *Custom Land Management Act No.33 of 2013*⁵ for codification of custom in Vanuatu, which has led to codification of custom in some provinces, specifically mapping the boundaries of different cultural-linguistic groups with the intent of reducing boundary conflicts in the future. It also acknowledges draft laws on traditional knowledge and new laws such as the *Traditional Knowledge Act* in the Cook Islands and its relevance for recognising custom owners of TK. Given that we are in the early stages of two research projects in the Pacific, we provide a basic framework for analysis and potential next steps for relevant work and research in these countries.

PATENT LANDSCAPING/MAPPING: IDENTIFICATION OF 'SPECIES OF INTEREST'

Patent landscape analysis is an established methodology used by authors examining the, utilisation of biological resources in innovations registered and/or protected by a patent. The most comprehensive quantitative studies relating to patents and biodiversity have been conducted at the global level by Oldham et al.⁶ As Bubela et al. (2013,202)

⁴ Relating to the Pacific, see Robinson, D. F., & Forsyth, M. 'People, plants, place, and rules: the Nagoya Protocol in pacific island countries' (2016) 54(3) *Geographical Research*, 324-335; Forsyth, M. 'Do you want it giftwrapped? Protecting traditional knowledge in the Pacific Island Countries.' (2012) *Indigenous peoples' innovation: IP pathways to development*, 189-214; relating to the EU and global implementation, see Buck, M., & Hamilton, C. 'The Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the Convention on Biological Diversity' (2011) 20(1), *Review of European Community & International Environmental Law*, 47-61; for developing countries broadly, see Nijar, G. S. (2011). *The Nagoya Protocol on access and benefit sharing of genetic resources: Analysis and implementation options for developing countries*. South Centre, Geneva.

⁵ This includes amendments as set out in *Custom Land Management Act (Amendment) (No.12 of 2014)*

⁶ Oldham, P. 'Biodiversity and the Patent System: Towards International Indicators' (2006) 3*Global*

explain, ‘a landscape is an analysis of the relationships between multiple sets of indicators measured against temporal, technical or spatial dimensions’ and can be applied to patents, scientific articles clinical trials and other indicators.⁷ A few of these authors have begun applying these landscaping approaches to global patent searches in an effort to identify the scale of utilisation of biological resources and associated knowledge. Following this, further qualitative analysis can be undertaken to identify potential incidents of misappropriation of biopiracy. These quantitative and qualitative analyses can assist with the identification of issues which can inform policy-making relevant to the implementation of the Nagoya Protocol.

For the Oceania region, Robinson and Raven⁸ conducted patent landscaping for 321 Australian native ‘economic plants’ with known Indigenous uses. This study uncovered over 1300 patents and applications, including 150 relating to endemic species. The initial mapping, for example, highlighted the existence of an Australian patent over *Pittosporum angustifolium* (traditionally known as gumbi gumbi) in relation to processes and extracts of the plant. The patent itself directly cites Indigenous knowledge and broadly relates to treatment of sicknesses. It also found patents over *Alphitonia excelsa* (Soap Tree or Red Ash) and *Nymphaea gigantea* (Giant Waterlily or Blue Waterlily) which was also used for ailments. Through research we found extensive literature for these species, which often published Indigenous knowledge to which the patents either directly or indirectly relate.⁹

This mapping process, undertaken with the use of ethnobotanical texts to identify further potential misappropriations of knowledge, assists in identifying ‘species of interest’ which can form the basis of case studies to explore the

Status and Trends in Intellectual Property Claims’ 1–88; Oldham, P., S. Hall, and O. Forero. ‘Biological Diversity in the Patent System’ (2013) 8 (11) *PLoS ONE* e78737.

⁷ Bubela, T., E. R. Gold, G. D. Graff, D. R. Cahoy, D. Nicol, and D. Castle. ‘Patent Landscaping for Life Sciences Innovation: Toward Consistent and Transparent Practices’ (2013) 31 *Nature Biotechnology* 202–206.

⁸Robinson, D.F. and Raven, M. Identifying and Preventing Biopiracy in Australia: Patent trends for Plants with Aboriginal uses’ (2017) 48(3) *Australian Geographer* 311-331.

⁹ Robinson, D; Raven, M; and Hunter, J The Limits of ABS laws: Why gumbi gumbi and other bush foods and medicines need specific indigenous knowledge protections, (2018) in Lawson, C. and Adhikari, K (eds) *Biodiversity, Genetic Resources and Intellectual Property: Developments in Access and Benefit Sharing*, 185-207.

implementation of the Nagoya Protocol. Ethnobotanical texts provide a publicly available source of information collected about Indigenous uses of plants, animals and other biota. However, these collections have often been undertaken without clear permissions or prior informed consent (PIC) of the local informants. Searches can therefore try to identify where past disclosures may have then led to further research and development, and subsequent commercial activity. While it is nearly impossible to identify direct links between past ethnobotanical activity and commercial appropriation – once in the ‘public domain’ anyone can find and use the information – we can use the findings as a marker of how information has been translated, and to identify where there might have been breach of the Convention on Biological Diversity (1992) or of the more recent Nagoya Protocol (in force 2014).

A number of patent databases can be utilised including the World Intellectual Property Organization (WIPO) PatentScope database (utilised by Robinson and Raven, 2017), or others such as Patent Lens.¹⁰ Structured keyword searches for species names can be made in these publicly available databases. Species names can be narrowed down to species with known and identified Indigenous knowledge, and also endemic species. In previous studies mentioned above, many species identified are found in transboundary situations, and many have shared traditional knowledge across multiple countries and cultural groups, highlighting the complexities of protecting Indigenous knowledge from potential misappropriation.

We are adopting this method to undertake further patent landscapes and case studies in Australia and the Pacific, starting with plant species. As Mead explains, “...the Pacific has the dubious honour of providing to the world’s policy analysts, legislators, students and researchers in ethnobotany, bio-ethics and indigenous intellectual property policy and law, some of the very best examples of unethical practice.”¹¹ The Australian Research Council (ARC) Discovery Project¹² *Indigenous*

¹⁰ Patent Lens, <https://www.lens.org/> accessed 23/8/2018

¹¹ Mead, Aroha Te Pareake (2007). “The Polynesian Excellence Gene & Patent Bottom-Trawling” in Aroha Te Pareake Mead and Steven Ratuva (eds) *Pacific Genes and Life Patents: Pacific Indigenous Experiences & Analysis of the Commodification & Ownership of Life (Call of the Earth Llamado de la Tierra and The United Nations University Institute of Advanced Studies, Yokohama)* 34.

¹² Robinson and Raven are joint Chief Investigators on the ARC Discovery Project (Project ID: DP180100507) *Indigenous knowledge futures: protecting and promoting Indigenous knowledge*.

knowledge futures will undertake further analysis of patents that have been lodged over plant species across the Pacific, with specific focus on species in Vanuatu and the Cook Islands. Thousands of patents have now been identified from our searches relating to plants found in the Pacific that have traditional knowledge associated with them, particularly as medicinal plants. Many of these plants are found across the region as well as broadly across the tropics globally, and so there are varying customs and different uses of the plants. Further detailed analysis of traditional uses and of the patent claims is being undertaken now, but there are some preliminary results that we will discuss in relation to the popular traditional drink kava (*Piper methysticum*).

KAVA - FROM KASTOM/CUSTOM DRINK TO URBAN HIPSTER BREW

Kava is a well-known plant native to the Pacific Rim and the Hawaiian Islands. Kava root and rhizomes are used to prepare a non-fermented beverage with relaxant effects that is today used for traditional ceremonies as well as for social and recreational purposes, and has been traditionally used in ceremonies¹³. Since Independence in Vanuatu, kava has become regularly consumed in urban centres and villages on a regular basis by both men and women (traditionally women did not normally drink). There are now 100's of kava bars found in Vanuatu's capital Port Vila where people meet to relax and socialize well into the evenings. Kava roots at urban nakamals are mechanically ground but the roots were traditionally chewed or ground into a pulp through other means and extracted in water, and the resulting brew, which somewhat mimics the effects of an alcoholic beverage, has been used as a ceremonial drink in the Pacific Islands for hundreds of years.¹⁴ While kava is considered a sacred plant in the South Pacific and is used in a variety of ceremonies, it is also used in traditional medicine to relieve anxiety, stress, fatigue, and insomnia, and to treat urinary tract

¹³ For further literature on the cultural and recreational aspects of kava see, for example:

McDonald, D., and Jowitt, A. (2000) 'Kava in the Pacific Islands: a contemporary drug of abuse?', *19Drug and Alcohol Review* 217-277 ; Emiliani, M.E. 'From the Caribbean to the South Pacific: Cultural Hybridity, Resistance, and Historical Difference', (2017) 1(1) *ab-Original: Journal of Indigenous Studies and First Nations and First Peoples' Cultures*, 62-80; Forsyth, M. *A Bird that Flies with Two Wings: Kastom and state justice systems in Vanuatu* (2009).

¹⁴ Cassileth, B., 'Kava (piper methysticum)' (2011) 25(4) *Oncology*, 384-5.

infections and menopausal symptoms.¹⁵

Cultivated kava (*Piper methysticum*)(see Lebot's taxonomic revision in attached paper) is believed to derive from a wild progenitor, *Piper wichmannii* C.DC., which is a fertile *Piper* species indigenous to New Guinea, the Solomon Islands and Vanuatu.¹⁶ Lebot et al. (1997) suggest that 'farmers in the Northern islands of Vanuatu were the first to select and develop the species as a vegetatively reproduced root crop', domesticated less than 3000 years ago in Vanuatu before being carried eastwards via traditional trade routes to Fiji and Polynesia, and westwards into New Guinea and parts of Micronesia.¹⁷

Despite these indications about the breeding origins of kava, there are also multiple *kastom* or traditional stories about the origins of kava. In Hawaiian myths, kava was imported by the gods Kane and Kanaloa, on which they subsisted, roaming across the Hawaiian archipelago planting kava and causing springs to flow where there is no ready supply of water with which to make the kava brew.¹⁸ In Vanuatu it is often known as *maloku* or *mologu* (from Ragu language in North Pentecost)¹⁹, or a similar variant. A common theme found in stories about kava's supernatural, womanly or animal origins is that the first kava plant sprouted from a buried corpse of a woman or an animal.²⁰ Vanuatu kava origin myths and stories often speak to wider cultural notions in *kastom* about proper relations between men and women, leaders and followers and between the living and the dead which Lindstrom refers to as the germinant corpse.²¹ Kava is embroiled in the linkage between death and life, fertility, and growth²² and was traditionally used to enhance communication with ancestral spirits²³. As kava use was central to the traditional cosmology of Vanuatu, the more

¹⁵ Ibid at 385.

¹⁶ Lebot, V., Merlin, M., and Lindstrom, L. *Kava, The Pacific Elixir: The Definitive Guide to its Ethnobotany, History and Chemistry* (1997) 254.

¹⁷ Ibid at 5.

¹⁸ Beckwith, M. (1970) *Hawaiian Mythology*, University of Hawaii Press, Honolulu.

¹⁹ Taylor, J.P. 'Janus and the siren's call: Kava and the articulation of gender and modernity in Vanuatu', (2010) 16 *Journal of the Royal Anthropological Institute* 279-296, 279.

²⁰ Lindstrom, L. (1992) 'Anthropology: The Cultural Significance and Social Uses of Kava, in Lebot et al. (eds), above note 14, 119-174, 122-6.

²¹ Ibid, 129.

²² Turner, J.W. 'Listening to the Ancestors: Kava and the Lapita Peoples', (Winter/Spring 2012) 51 ½ *Ethnology*, 31-53.

²³ Taylor, *ibid*, n 19.

fundamental Christian religions actively campaigned against kava use²⁴ and this continues today to some degree amongst some religions.

For many ni-Vanuatu, kava is a cultural icon and important source of identity and pride that links people to their ancestral traditions in an almost mystical ‘taem befo’ (Bislama for ‘time before’). For this reason, there is an inherent resentment to foreigners being involved in the commercialization of kava as they are seen as interlopers with no historical or cultural connection to kava; but represent just another form of bio-piracy in a long history of European ‘Men of Enterprise’ arriving to Vanuatu’s shores (starting in the early 1800’s) to exploit resources such as sandalwood, giant kauri, sea cucumbers (beche-de-mer), or alienate vast tracts of land for coconut plantations and other crops. This colonial interference even included ‘blackbirders’ who indentured ni-Vanuatu to the Queensland and Fijian sugarcane fields. For this reason the operation of kava bars is on the government reserve list for ni-Vanuatu only, but with passport sales increasingly used as a source of government revenue, expatriates are now eligible to operate kava bars provided they first acquire ni-Vanuatu citizenship. This loophole, however, does not always diminish the resentment felt by people who see foreigners profiting from a culturally important plant with spiritually important powers.

Forsyth (2009) explains the typical operation of the kastom system in Vanuatu and dispute settlement procedures which involve meetings, often involving many members of each community, in a *nakamal* (which today has a dual meaning as a community meeting place and kava bar). When resolving the dispute, many payments are now made in cash in modern Vanuatu, although kastom payments of pigs, pig tusks, mats, kava and root crops (or other traditional wealth items) are also used, especially in rural areas.²⁵ In a kastom observation study, 33 per cent of cases involved a ceremony in which the parties drank kava or ate together, there was an apology, a kastom payment was made or the parties shook hands.²⁶ As Forsyth explains, kava is commonly involved in some form of reconciliation which varies from island to island in Vanuatu,

²⁴ Taylor, *ibid*, n 19; Lindstrom, *ibid* n 20.

²⁵ Forsyth, M, *A Bird that Flies with Two Wings: Kastom and state justice systems in Vanuatu*, (2009) 103.

²⁶ Forsyth (2009) above n 21,105.

for example:

In the Torres Islands, the reconciliation ceremony involves a kava ritual. One person makes the kava and gives two shells of kava to each party who then have to drink the shells all at once. This is said to symbolise washing the sin of the conflict from your eyes because the truth and facts of the world enter your body through your eyes. From that moment on the grievances should be buried.²⁷

Clearly, Kava has been traditionally utilised for its calming and peace-giving qualities. Even in recent times, Taylor highlights that oral-historical narratives remember that the first kava bar in Luganville on Espiritu Santo played a crucial role in establishing harmonious relationships following the ‘Santo Rebellion’ of 1980, and between the ni-Vanuatu and many mainly francophone whites who frequented it.²⁸

It is believed that kava was introduced to the West by Captain James Cook in 1768.²⁹ But in recent decades, kava has gained popularity in many Western countries, where it is promoted in supplemental form for anxiety, insomnia, and stress, and as a relaxant brew served in ‘hipster bars’ and health food shops. But concern has begun to rise in the region about foreign companies gaining patents relating to kava; overseas production of kava in countries such as Hawaii³⁰, Australia and Guatemala; and price pressures that export markets have made to domestic consumption markets.

KAVA PATENTS

From our recent patent landscaping we have identified 200 patents (including current applications) from 132 patent families, using a structured patent search for ‘title, abstract and claims’ in PatentLens.³¹ Because patents are often filed in multiple jurisdictions, they can be described in ‘families’, so the lesser number is indicative of patent innovation surrounding kava. Our search used the keyword ‘*Piper methysticum*’, and by doing a ‘structured search’ we limit the possibility of spurious mentions of the species in the patent documents or cases where it is not critical to the patent. While

²⁷ Ibid, Forsyth (2009) above n 21,105

²⁸ Taylor. Ibid, n17, 285.

²⁹ Lebot et al. (1997). Ibid, n 14.

³⁰ Hawaii was a traditional producer, so local use is not generally resented, and efforts to revive kava varieties and use is actively pursued in Hawaii, and at least one kava bar now operates in Honolulu

³¹ Patent Lens, <https://www.lens.org/lens/> accessed 27/8/18.

some of these patents may be on processes or methods of producing kava for different uses, some of them are explicitly on extracts derived from the plant biological material itself. The patents vary in terms of the field of use, the part of the plant used, the purpose of intended use, as well as many other variables. There are at least three kava patents, of the 200 identifiable kava patents, which create unique examples for highlighting and exploring the complexities of implementing the Nagoya Protocol for specific species, such as kava.

Patent 1: ‘Piper Methysticum Plant Extract’

Patent WO2002/007743 A3 was published in 2003 and is a WIPO patent entitled ‘Piper Methysticum Plant Extract’. The abstract explains that the:

invention relates to an extract taken from *Piper methysticum* G. Forster, which is extracted from above-ground growing parts of these plants, especially from the leaves. Said extract offers advantages with regard to the action and extraction and, according to HPLC analysis, is distinctly different from known extracts taken from root material. One such extract can be obtained by extracting substances from above-ground growing plant material of *Piper methysticum* G. Forster, preferably from the leaf material, and is suited for use in medicaments having an anxiolytic, anticonvulsive, muscle relaxant, narcosis increasing, analgesic, sleep-inducing, anti-inflammatory and/or neuroprotective effect.³²

In this case the patent has likely been granted as ‘inventive’ because it is utilising a different part of the plant - as it explains using the leaves of the plant rather than the root, offering specific advantages. Most of the Indigenous knowledge representing ‘prior art’ is regarding the uses of the root of the kava plant. However, a concern arising from a patent such as this, is regarding the way Indigenous knowledge has almost certainly acted as a lead towards the invention. The Indigenous knowledge about kava is obviously about its uses as a relaxant, having a calming effect and sleep-inducing, amongst other things. This sort of patent free-rides on Indigenous knowledge. As such, there should be some recognition of this, and potential benefit-sharing with the original providers of the plant and the knowledge. This latter idea is the central fulcrum of the ‘access and benefit-sharing’ provisions under the Nagoya Protocol and CBD.

³² WO2002/007743 A3 (Published 3 April 2003) ‘Piper Methysticum Plant Extract’ identified through Patent Lens: <https://www.lens.org/lens/> accessed 27/8/2018.

Patent 2: ‘Pipermethystine-free Extract of Piper Methysticum Useful for Treating Anxiety, Nervous Tension and Agitation’

Another example is the German patent DE 102004039012 A1 published 24 March 2005, entitled ‘Pipermethystine-free Extract of Piper Methysticum Useful for Treating Anxiety, Nervous Tension and Agitation’. The translated abstract obtained explains:

Pipermethystine-free extract of Piper methysticum (kava) is new. An independent claim is also included for producing an extract as above by a process comprising a primary extraction step, a purification step comprising liquid-liquid partition, adsorption-desorption on an ion-exchange or other resin or chromatographic separation to remove pipermethystine and/or other piperidine alkaloids, and optionally a concentration step to produce a dry extract.³³

In this case, the claims appear to be for a method of producing an extract and for the extract itself. The extract is claimed to be ‘pipermethystine-free’. Pipermethystine is a toxic alkaloid present in the aerial portions of the kava plant such as the leaves, which was a matter of health concern in some jurisdictions – particularly Europe.³⁴ There was a belief that imported commercial kava powder contained the compound and that it was causing liver problems or liver failure in some consumers of kava, which ultimately caused the closure of the market in Europe for a period. Subsequent studies have shown that powdered kava root typically contains only low quantities of the alkaloid, resulting in the re-opening of the European market but with more strict rules for kava import.³⁵ This particular patent appears to have been seeking a way to create a safe extract in response to the European regulations and concerns. However, the purpose of the extract – for treating anxiety, nervous tension and agitation – is clearly also based on the Indigenous knowledge and traditional uses of kava. The same arguments raised above in relation to the free-riding effect of Indigenous knowledge, and the need for recognition and appropriate benefit-sharing may also apply to this patent.

³³ DE 102004039012 A1 published 24 March 2005, entitled ‘Pipermethystine-free Extract of Piper Methysticum Useful for Treating Anxiety, Nervous Tension and Agitation’ identified through Patent Lens: <https://www.lens.org/lens/> accessed 27/8/2018.

³⁴ Lechtenberg M, Quandt B, Schmidt M, Nahrstedt A ‘Is the alkaloid pipermethystine connected with the claimed liver toxicity of Kava products?’ (2008) **63** (1) *Pharmazie*. 71–4.

³⁵ *Ibid.*

Patent 3: ‘Kava Piper Methysticum Extract and Preparation Method Thereof’

A final patent worth examining is CN 101239104 B – a granted Chinese patent published 19 January 2011, with applicant China Food Industry Group Company – entitled ‘Kava Piper Methysticum Extract and Preparation Method Thereof’. The translation of the abstract describes the invention:

Disclosed is a kava pepper extract and the preparation thereof, characterized in involving the following steps: collecting and sorting raw material, cleaning, drying, crushing, primarily extracting of alcohol, filtering, concentrating, drying and crushing, secondarily extracting of alcohol from residue, concentrating the secondary extract under a reduced pressure, smashing and mixing, and last the kava pepper extract is obtained. The invention has the advantages of safety, efficient and cost saving, with a kava lactone content and a glutathione content of the prepared kava pepper extract respectively of 20 to 50% and 0.1 to 0.8%.

There is only a limited translation of this patent, therefore we cannot look at the claims in-depth. However, the patent lists a claimed kava extract and preparation method. The purpose of the patent method is unclear, however given the ‘food industry’ focus of the company we can assume it is likely to be for human consumption. The patent-holder has made some case up-front about the benefits – safety, efficacy and cost-saving of creating an abstract with a limited kava lactone content and glutathione content. However, the patent-holders have used a common approach when describing their innovation – for instance, they have used a broad range for the kava lactone content of 20 to 50%. This has the advantage for them of potentially restricting other companies from selling extracts of kava with similar kava lactone content ranges. Although they use what may seem like a complicated method, there are many ways that one might dilute kava to limit the lactone content. So, this patent might raise validity concerns as well as the same concerns as the patents discussed above.

These are just three of the 132 patent families. Some of these might be for very different purposes, they may be new plant cultivars, or new uses of kava. For example, there are some patents that apply kava to cosmetic and skin-care applications. Others would raise similar questions to the ones raised in the above examples. During visits to Pacific islands, discussions about kava regularly see these issues arise. There have been both economic and cultural concerns about the appropriation of kava for decades. In the late 1990s *The Guardian* reported on incoming industry and exporters making deals to appropriate the plant. The Pacific Concerns Resource Centre drew up legislation for the ‘Intellectual Property of Indigenous Peoples’ with the centre’s Fei Tevi quoted as saying:

Kava has already been hijacked... In traditional custom you do not harvest the kava for money. We want pharmaceutical companies to follow a 10-point plan respecting Indigenous people's culture and their rights to royalties.³⁶

There have been many challenges for the protection of Indigenous knowledge and genetic resources in the region³⁷. In many cases, like for kava, the plant or animal species is found in multiple islands, countries or even regions. In these cases, like for kava, the Indigenous or traditional knowledge may also be from multiple places. To assist with this sort of transboundary issue, the Pacific Islands Forum Secretariat – with other agencies – developed *Pacific Model Laws on Traditional Knowledge* in the early 2000s; however, this did not ultimately receive widespread use. This may have been because of different internal/ national concerns and interests, or because of the difficulty in reconciling between traditional systems of governance and kastom/customary law, state laws and supra-state laws. In his detailed discussion of biopiracy of kava from 2009, Lindstrom explains some of the issues associated with operating between these legal layers and systems:

In Vanuatu, [...] individuals (and their families and lineages) may claim overlapping rights to this or that kava variety, and would deny common cultural heritage. There are also (chiefly) titled versus untitled, and male versus female, claims to use and exchange kava. On the island of Tanna, for example, certain families have the right to consume specially grown and decorated kava tapuga at festivals celebrating boys' circumcisions. Overlapping claims to this sort of kava by scattered families across the island would be difficult to adjudicate. Any sui generis patent system that awarded general rights to kava to all ni-Vanuatu, or to the state, also could spark opposition from individuals, regions, kin-groups, and classes jealous of their particular kava claims.³⁸

NAGOYA PROTOCOL AND IMPLEMENTATION IN VANUATU

In the years since the Nagoya Protocol has come into force (2014), there has been a new impetus and framework for re-analysing these challenges. Two articles of the Nagoya Protocol provide particular motivation for future participatory research and community-based activities. For instance, Article 7 of the Nagoya Protocol directs

³⁶ Adams, Catherine (1998) 'Fiji loses its wonder drug to Western stress-busters' *The Guardian*, October 8, p19.

³⁷ See Robinson and Forsyth (2016), *ibid* n 3; Forsyth (2012), *ibid* n 4; and Mead (2011) *ibid* n 11.

³⁸ Lindstrom, L. (2009). Kava pirates in vanuatu? *International Journal of Cultural Property*, 16(3), at p299.

Parties to take measures to ensure that TK associated with genetic resources held by Indigenous and local communities is ‘accessed with the prior and informed consent or approval and involvement of these’ communities and that ‘mutually agreed terms have been established’³⁹. Additionally, Article 12 of the Nagoya Protocol directs Parties to take into consideration Indigenous and local communities customary laws, community protocols and procedures with respect to TK associated with genetic resources⁴⁰.

Vanuatu ratified the Nagoya Protocol in 2014 and is now implementing it through their Bioprospecting Division (Articles 29-34) of the *Environmental Protection and Conservation Act* (2006, as amended).⁴¹ The Act is largely compliant with the Nagoya Protocol, although some amendments relating to monitoring and compliance are likely to be eventually needed. In brief, the Act establishes a Biodiversity Advisory Council (Article 29) which reviews permit applications for research on biological resources. The Council, chaired by the Director of the Department of Environmental Protection and Conservation, has a membership made up of several relevant government departments (Fisheries, Agriculture, Cultural Centre, Trade, Forestry, and Foreign Affairs).

Under the *Environment Protection and Conservation Act*, applicants are required to seek a permit, sign a code of conduct and seek prior informed consent permissions from the communities in which they conduct collection activities. The permit requires a contract and consultations with the community of custom landholders, including details about rights of access, rights of acquisition of biological resources and/or associated TK. It also specifies the need for ‘appropriate fees, concessions or royalties that will be charged for any research, or the acquisition of any biological resource or traditional knowledge, or for any commercial benefit that may be obtained’ (Article 36.4(a)). Importantly, the Act provides for significant penalties including jail terms and fines for non-compliance (Article 32). A deposit of 100,000 Vatu is also held to ensure compliance with the conditions of the permit (Article 33).

³⁹ Ibid, n 1, 7.

⁴⁰ Ibid, n 1, 9.

⁴¹ Vanuatu ENVIRONMENTAL PROTECTION AND CONSERVATION CAP. 283, 2002 (amended 2006).

Equally important, is that Article 36.4a of the Act is particularly relevant for thinking about access to species like kava that are important to custom landholders, that have *kastom* ceremonial significance, and also where there is associated traditional knowledge. Exactly who the ‘providers’ and custom landholders should be is problematic though. Potentially dozens of communities could be the providers. One of the difficulties of operationalising the Act is that it could mean excluding others from involvement in kava production or bio-trading.

The Vanuatu Cultural Council also regulates foreigners wishing to conduct cultural-related research including traditional knowledge through a research permit process⁴² to enable ethical research that does not exploit the TK or natural resources of the communities involved. Researchers are obligated to respect local traditions as well as submit any publications produced from the research to the Council, as well as producing some research outputs that will benefit the community such as educational resources in the vernacular language for use in community schools.

Additionally, in Vanuatu the *Custom Land Management Act* formalises the recognition of customary institutions, the ‘nakamals’ and ‘custom area land tribunals’, whereby ‘final decisions reached by these customary institutions, when appropriately recorded, become recorded interests in land which are binding in law and are not subject to appeal, or judicial review, by, any Court of law’⁴³. The Act has as dispute resolution provision and has been established in part to deal with issues of land acquisition and foreign ownership, as well as for the clarification of procedures for community involvement in land leases. The Act is relevant for ABS because it may gradually help define more clearly who has ‘established rights to provide access to genetic resources’ and associated TK.

However, the Act is still undergoing some reform and its implementation is unlikely to be without issues and concerns. For instance, there is currently a pilot project being undertaken – under Resolution 19 of custom governance under the Vanuatu *Land Management Act* – in collaboration with the Malvatumauri National Council of Chiefs. Nikoletan Council of Chiefs Secretary, Bruno Kehma, in 2017 said this is the only

⁴² Vanuatu Cultural Research Policy (Amended 2016), Vanuatu Kaljoral Senta.

⁴³ *Custom Land Management Act No.33 of 2013*, 4.

roadmap for chiefs to tackle land issues.⁴⁴ Mr Kehma said that pilot project was initiated to identify customary boundaries, set up area councils and identify taboo areas and to submit reports to the Malvatumauri.⁴⁵ The project was piloted in four islands: Malo, Ambae, Efate and Tanna, and it has been extended and still ongoing in Efate, making it easier to make a detailed assessment of the impacts of the Act.

Vanuatu also has a Draft *Traditional Knowledge Bill*, initially drafted by the Ministry of Trade.⁴⁶ This adds another layer of legal complexity to the landscape that seeks to provide guidance to all actors seeking to protect ni-Vanuatu traditional knowledge and to implement the Nagoya Protocol. One idea behind this bill is that communities could be encouraged to register their TK for protection and for clarification of ‘who is the provider’ when bio-prospecting researchers come to Vanuatu. But this bill is still some way from completed so we cannot comment properly on this, except to note that a registration system might duplicate *kastom* systems and it could also cause problems with multiple overlapping registrations – especially for a widely found and used species like kava.

Others, like Lindstrom, have suggested that a ‘promising strategy may be developing consumer awareness of geographic indicators and “noble” kava varieties that Vanuatu’s local producers may control yet globally market as “the best in the world”’.⁴⁷ Given that many of the noble kava cultivars are endemic to Vanuatu, this might be a good strategy for linking the product to ‘terroir’ and seeking reciprocal protections in regions like the EU, as well as equivalent recognitions in ‘new world’ markets like the US and Australia through ‘certification trademarks’. However, there are considerable costs in setting up geographical indications systems, it requires a

⁴⁴ Napwatt, Fern, (2017) ‘Land Management Act- Better roadmap for land issues’ http://dailypost.vu/news/land-management-act--better-roadmap-for-land-issues/article_3f5fffb8-99d2-56c3-99ec-2ea1cc4dde2e.html, 7 January 2017, accessed 28/8/2018.

⁴⁵ Ibid.

⁴⁶ For another example, there has been some activity in the Cook Islands. While the Cook Islands are yet to sign the Nagoya Protocol; it has some of the legal foundations for implementing this provision. The Cook Islands *Traditional Knowledge Act* No. 7 of 2013 gives ‘legal recognition to rights in traditional knowledge of the traditional communities of the Cook Islands’ and ‘help those communities, and holders of those rights, to protect those rights for the benefit of the people of the Cook Islands’. Despite being in force for a few years, there are not yet implementing regulations for the Act and so it is only partially implemented. See Robinson and Forsyth, above note 3 for more detail.

⁴⁷ Lindstrom. Ibid, n 32, 291 and 305.

strong collaborative association of producers to monitor and enforce its protections, and it may take some years for foreign markets to ‘buy-in’ to the idea that these are the best varieties of kava.

CONCLUSIONS AND FUTURE WORK

In summary, there are ongoing issues relating to the appropriation of biological resources and associated traditional knowledge in the Pacific, including in relation to high value and culturally significant species like kava. While there are a number of legal developments stemming from the Nagoya Protocol and in parallel to those laws, it is clear that there is a role for the recognition of customary laws, protocols and practices. However, using state law systems to recognise customary laws and protocols is often inherently fraught and will face ongoing challenges as traditional oral systems of governance are codified and reified to the state level.

Our Australian Research Council Discovery Project *Indigenous Knowledge Futures: Protecting and Promoting Indigenous Knowledge* seeks, over the next five years, to:

- understand the commercial uses and misappropriations of Indigenous knowledge to help inform the implementation of the Nagoya Protocol;
- understand Indigenous perspectives and customary laws surrounding ‘species of interest’ in Australia, Vanuatu, and the Cook Islands where companies are researching and developing products for commercialisation, and which have associated IK; and
- explore the advantages and disadvantages of using community protocols, custom documentation and other tools for IK regulation, the risks they entail, whether they achieve their desired outcomes, and to identify the circumstances that facilitate or hinder real benefits for Indigenous peoples.

As part of this we are in the initial engagement stages of the research in Vanuatu, the Cook Islands and communities across the north of Australia. This has included seeking research permits, visiting communities in these locations, and engaging in discussions about the research and potential outcomes.

Acknowledgements, Funders and Partners

The research with Vanuatu and Cook Islander communities is part of the Australian Research Council (ARC) Discovery Project *Indigenous Knowledge Futures* (DP

DP180100507). It is also part of a wider Pacific Regional Project for the Access and Benefit-Sharing Capacity Development Initiative (ABS Initiative: <http://www.abs-initiative.info/>). The research is funded and supported by: Australian Research Council (ARC); UNSW Australia; Macquarie University, Australia; and through the ABS initiative - Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; European Union (Development assistance); African, Caribbean and Pacific Secretariat (ACP). Some of our project partners are: Secretariat of the Pacific Regional Environment Programme (SPREP); UN Environment; Department of Environmental Protection and Conservation, Vanuatu; Vanuatu Cultural Centre; Cook Islands partners to be confirmed.