

Indigenous Knowledge for Community Benefit

Examples from Lavongai (New Hanover) Island in the Pacific Region

Patrick Karabuspalau Kaiku
Tukul Walla Kaiku

Abstract

From the South Pacific region comes the indigenous knowledge of the people of Lavongai Island (also known as New Hanover) in the New Ireland Province of Papua New Guinea. This paper explores some varieties of indigenous knowledge, how they are transmitted and their wider implications for sustainable development. Indigenous knowledge is defined as the authentic body of knowledge that humans possess about the utility of their surrounding and how human creativity and judgments in the use of nature benefits both the people and their world. The paper illustrates how the Lavongai custodians of indigenous knowledge have been an inseparable part of their natural environment through the ages for the sustenance and sustainability of their society.

Key words: indigenous knowledge, sustainable development, mythology, community benefit, spiritual basis

Introduction

The Pacific Ocean occupies three quarters of the earth's surface and has been home to numerous self-reliant communities for thousands of years. The communities have thrived through the centuries using various elements of their environment and the accumulated knowledge of their collective human experience for their survival. One such community in this region lives on Lavongai Island (also known as New Hanover) within the New Ireland Province of Papua New Guinea. There can be found a reservoir of indigenous knowledge developed by its ancient peoples for the sustenance and sustainability of their society.

The aim of this paper is to highlight four examples of indigenous knowledge from Lavongai Island by portraying how this knowledge has worked in unison and contributed to the sustainability of the environment and sustenance of its inhabitants over the years. The four examples highlighted here include; mythology in relation to ethics and morality and socialization, ritual practices for fish farming, feasting, and birth control.

After establishing what indigenous knowledge and sustainable development are, a snapshot of Lavongai Island and its location in the Pacific region will set the context in which will be featured the examples of indigenous knowledge that have been selected for the purpose of this paper. The conclusion will draw

together a summary of the discussion and end with a number of proposed recommendations for consideration and discussion.

Indigenous knowledge and sustainable development

The conceptual evolution of the terminologies 'indigenous knowledge' and 'sustainable development' highlight changes in development thinking. Where the hitherto view centered on indigenous knowledge as being an 'hindrance' to development, 'Western contempt' for indigenous knowledge has gradually changed due to a 'growing appreciation' of the value of indigenous knowledge (Busse and Whimp, 2000: 1-2).

The term indigenous knowledge cannot be taken out of the individually beneficial or communally life-enhancing body of information transmitted and accumulated by humans through the processes of co-participation, observation, trial and error, and oral instructions, or believed to be acquired through spiritual intercession.

According to Grenier (1998), indigenous knowledge is defined as 'the unique, traditional, local knowledge existing within and developed around the specific conditions of men and women indigenous to a particular geographic area'. It is evident in this definition that knowledge systems are contextual in nature, that is, indigenous knowledge is 'linked to a specific place, is dynamic in nature, belongs to groups of people who live in close contact with natural systems and contrasts with modern or Western formal scientific knowledge' (Studley, 1998).

In our discussion of Lovongai Island, there is a far-reaching nature of indigenous knowledge. It is not grounded exclusively in the natural environment; rather, there is a spiritual basis, reinforced through the mythological and supernatural means that only can be explained by the custodians of these forms of indigenous knowledge. These are not mere works of superstitious and 'backward' people. Rather, they serve as an elaborate institution for the functioning of an observant community where communal respect for the 'art' of indigenous knowledge practitioners give them an edge in the dictation on how care towards nature and the environment is undertaken.

Lavongai Island – background

Lovongai Island is located in the Pacific region in Papua New Guinea. Measuring 40 kilometres (35 miles) from east to west and 35 kilometres (22 miles) from north to south, the land area of the island is 1140 square kilometres (440 square miles). A group of low-lying islands known as the Tigak or La'ung connects Lovongai Island to mainland New Ireland.

Lovongai Island is mountainous and volcanic with outstanding peaks rising between 2000 and 3000 feet above sea-level. A mountain range known as the Tirpitz or Lavongai Range curves from north-west to south-east, notably stretching up and down the entire length of the island while an array of

mountains slopes gently in north-westerly and north-easterly directions. A peninsula to the west known as Cape Mata-nalem is a low swampy limestone plateau caused by a raised sea-bed.

Geologically, Lovongai is a volcanic island with much of its coastal fringes being uplifted sea-beds. Two prominent capes, Cape Pati-anging in the south and Cape Mata-nalem to the west, are raised sea-beds. Many short, swift flowing streams drain out onto the south coast from the Tirpitz Range and interior mountains. On the north side there are wider lower plains and fewer and longer rivers.

Fringing reefs are continuous around the mainland with a chain of islands surrounding the whole north-west and north-east fronts. There are numerous low-lying uninhabited mangrove islands as well. Tropical rainforest coats Lovongai Island with coconut plantations and sago swamps along the coast and mangrove swamps on the coastline. Patches of savanna grassland can also be found on the south coast.

The people of Lovongai Island are socially grouped into twelve matrilineal clans, symbolized by bird totems known as *Pat-mani*. One of these, *Uk* or Dove clan has no members. The surviving eleven clans with members include; *Mani* (Fish Hawk), *Kanai* (Seagull), *Ianga* (Parrot), *Valus* (Pigeon), *Nguma* (Crow), *Kikiu* (Woodpecker), *Venge-venge* (Hornbill), *Sui* (Kingfisher), *Silau* (Bush Fowl), *Tien* (Starling) and *Gila* (Parrakeet). Marriage within a clan is forbidden and a breach of this social law formerly resulted in death for either one or both parties involved. This practice is frowned upon these days.

Examples of Indigenous knowledge use on Lavongai Island

Example 1: Feast-Making

The first indigenous knowledge of Lavongai Island to be discussed is that of feast-making used in mortuary ceremonies (*matan-angan*). *Sasagi* is the art of food preparation, handling, sharing and hospitality to invited guests and the wider community. Dorothy Billings (2002) in her comparison of the Tikana and Lavongai cultures observes that 'communal feasts were prepared in New Hanover for missions and government events, but not in traditional contexts' (p.18). However, the existence of this traditional knowledge system and its ownership by individuals gives credence to its resilience. Contrary to Billings¹, communal feasts were conducted in Lavongai culture, though not in the same vein of elaborateness as that of their Tikana cousins. The existence of this body of knowledge with its overt practitioners attests to that effect. But what is the relationship between indigenous knowledge and sustainable development?

¹ Billings area of study on New Hanover was the Vote for President Johnson in 1964 and the aftermath events, thus little attention was paid to indigenous knowledge bodies which were at that time in the hands of second generation colonized Lavongais.

The use of plants or herbal intermediaries must always be reinforced with the appropriate body of rituals or procedural rites that summon the specialist spirit (*anit*)² in that particular art. The Lavongai artist believes that in every art or act of beneficial significance to the welfare of humans, there is always a guardian or specialist *anit* that must guide the processes of its self-manifestation. Sustainable development is intrinsic to the observance of taboo as a social control mechanism in eliciting respect towards the natural environment.

In the art of feast making (*vil angan*), the ‘miraculous act’ of complete nourishment is sought. The challenge that is proposed to the custodians of this knowledge system is how they can satisfy the hunger of many guests with any available quantity of food. Lassingan Levesi of Meteran village, on the south coast of the island is one custodian of this knowledge system, which is known in the Lavongai dialect as *manteng-i-masung* (the custodian of complete nourishment) (personal communication, 9 January, 2008).

According to Lassingan, the capabilities to make feasts and to satisfactorily feed guests are a ‘gift’ from the *pukpukis* (miracle-worker). In the evolution of mythological beliefs and the work of rituals, indigenous knowledge has taken on the meaning of being a beneficial asset that reinforces the care for the environment. Since Mother Nature is the Giver of the ‘ingredients’ used in this indigenous knowledge, Nature must be respected and cared for.

This imbued spiritual meaning gives credence to the work that custodians of indigenous knowledge perform. In the application of this indigenous knowledge *mateng-i-masung*, the artist is emulating the acts of the miracle worker (*tang tang kusi a pukpukis* [imitate the miracle-worker]).

According to Lassingan Levesi, the work and spiritual inspiration of *manteng-i-masung* are founded on the mythological creators or culture heroes of Lavongai Island. These culture heroes, according to oral tradition, were said to have had magical powers and tasked with creative traits that were used in their creation of Lavongai Island or magical works that were attributed to their names. The use of mythology and the cosmological institutions of Lavongai Island are the basis of drawing the ‘mythical’ inspiration to summon spiritual assistance by practitioners of *manteng-i-masung*.³

² ‘Anit’ in New Hanover society can be translated as ‘spirit’. In Lavongai Island cosmology, however, ‘anit’ is a supernatural being of the supernatural realm and is said to be an active force of a person, an animal or a plant to enable these to perform miraculous deeds. ‘Anit’ is rare and has to be invoked.

³ In his study of cultural structures and their connection with land tenure in the societies of Tongoa, Tanna and Central Pentecost in Vanuatu, Joel Bonnemaïson (1985) observed that: ‘Consequently, places – like men – have their own relationships. From root-place of original appearance of a chain of identity there derives one and sometimes several chains of secondary places that reflect the distribution in space of the power contained at this source. The same applies to all founding myths.....It follows that links in the chain grouping places together with respect to primordial places also govern the relationships between men and clans, whose identities are associated with those same places. The strength, both political and traditional, of clans and individuals mirrors the authenticity of

In the practices of this indigenous knowledge of feast making, two creative beings of Lavongai Island mythology are imitated.⁴ The first person is called *Natmailik*⁵ (orphan male child) who according to legend demonstrated his powers in a place called Pati-lasan, in a hilly region on the south coast of Lavongai Island. It was *Natmailik* who was credited with the invention of the *imun* (earth-oven), hence, he is the symbolic ‘father of plenty’ and he holds the key to complete nourishment. He was also invariably referred to as Tonvalval when he passed through a place called Valval on the west coast of Lavongai Island, spreading his knowledge on the use of the *imun* (earth-oven) as a means of food preparation.

The second creative person who is the spiritual basis of this indigenous knowledge system is *Kipang-tangtangkam*. This person is usually the malevolent or lazy character in Lavongai Island mythology. He derived his popularity by imitating what other noble miracle-workers were able to accomplish. Hence, he was not an original or innovative thinker; rather, he depended on others to think for him. This person has ‘disciples’ today who are destructive elements – those who are out to destroy the work of more creative practitioners of *manteng-i-masung*. This is the reason why when preparing for the *manteng-i-masung*, the *vabat* (defence) is considered to repel foreseeable malice that destructive ‘disciples’ of *Kipang-tangtangkam* are intending to convene.

Practitioners of *manteng-i-masung* possess or have rights, which differ from each other, thus the rites involved are not the same and those practicing these rites have various skills or methods of preparing the ingredients of their trade. However, in practicing the *manteng-I-masung*, there are two rites that are involved.

The first involves *alal* (fasting) where the participants abstain from taking food and water (liquid). The second rite involves *alalai* (avoidance). It involves the severance of any physical contact or spatial proximity to any person, particularly women. This rite involves sleeping or residing in the men’s sacred house (*rangaman-i-atailai*) for approximately two weeks.

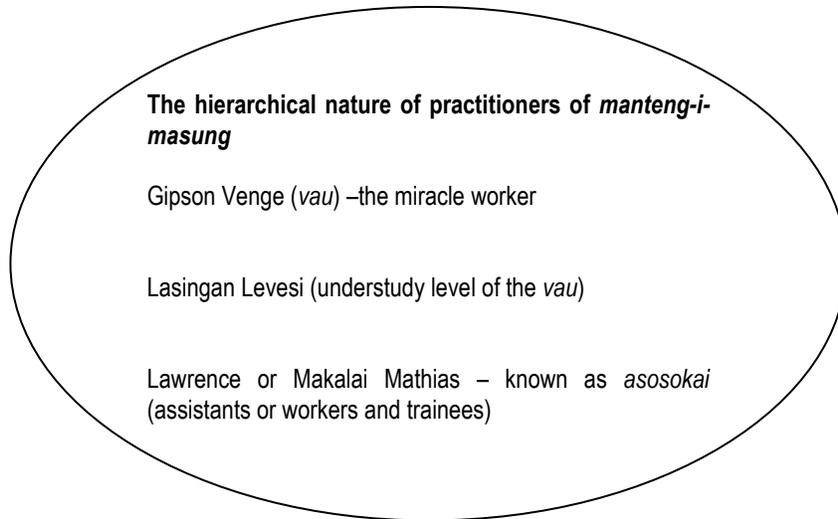
their root-place and their greater or lesser primacy in the chain of magical appearance’ (p.41)

⁴ In the *Argonauts of the Western Pacific* (1979) Bronislaw Malinowski makes a distinction between the different classes of myths. For instance he distinguishes between the (1) *ancient myths*, (2) *culture myths* and (3) *myths in which only ordinary human beings appear*. The third category is relevant to our understanding the significance of the *mateng-i-masung* rituals. In this indigenous knowledge, ordinary human beings in the performance of their art claim to emulate extraordinary powers and magic of their more illustrious predecessors (such as culture heroes) who are known and credited in Lavongai Island mythology as the originators of certain aspects of indigenous knowledge.

⁵ Literally the ‘orphan boy’ of no parents, but in actual fact a culture hero and shaman attributed in legend as the guardian of various (*tangan vongo*) herds and hordes of pigs in and around Lavongai Island.

The art of *manteng-I-masung* operates on the basis of an institutional structure an example of which is illustrated in Figure 1.

Figure 1 showing the relationship between the ownership of the indigenous knowledge and its transference



In this example of a feast making institution, the *vau* (seasoned master) is Gipson. In Lavongai, *vau* is used interchangeably to mean a ‘vessel’ from which the *anit* can easily emerge when summoned. So Gipson is the intermediary for the *anit*⁶ of the *manteng-i-masung*. He has reached this stage by virtue of his having initially undergone rigorous *alal* (fasting) and *alalai* (avoidance). In other words he is the complete embodiment and intermediary of the art of *manteng-i-masung*. He is said to have attained the state or level where he is a host, facilitator and channel of supernatural power.

The *vau* in subsequent processes of summoning supernatural intervention is not required to formally conduct his rituals from the confines of the sacred men’s house but can perform these rites from the confines of the village setting. He would by now have acquired the essential ‘wares’ for making his art become a reality in future engagements. The essential components that a *vau* should have are (1) ginger (*mai*) (2) *kap* (lime powder), (3) *vuta* (ashes) and (4) *dikut* (omen).

There is an understudy of the *vau*, in this case Lasingan, who has passed from trainee level and now basically works with Gipson as an understudy and at the same time also works with trainees Lawrence and Makalai to train them and when the need arises to gather the necessary ingredients to perform the rituals.

Trainees are tasked with gathering the necessary herbs and plants or literally to 'scour the bush' (*sili nei uten*) for the necessary trees and plants that are combined to make the potions. In the making of *manteng-i-masung*, the herbs that are gathered are collectively known as *volo masung pulit* (bundle of plenty), *vabat* (defence) and *vulmakinga* (ointment). These three collective groups of herbs play a complementary role. The *volo masung pulit* (bundle of plenty) and *vul makinga* (ointment) are used in the initial stages and make up the actual ingredients of the *manteng-i-masung*. This process is usually in the first week when the seclusion and fasting by the custodians of this knowledge begins. In this process, the *moi* (herbal ointment), *kap* (lime powder) and other ingredients are produced for their use in the actual food preparation phase.

This work is known as *wuak ni pakakit* (work to reinforce). Rituals performed and herbs used as mixtures in the process of the *mumu* (using the stone oven to bake food stuff) bring the *lom-lomonai* (thinking/idea) into reality. Hence, belief is made into reality through the use of intermediary components such as herbs and strict observance of rituals. When the *manteng-i-masung* art is used, its custodians can be notified of the success of their work if any supernatural manifestations happen. This is relevant because it must signify the fulfillment of the feat.

The *moi* (herbal ointment) is used in food preparation. It is rubbed on women who are assigned to peel the taro, kaukau or other vegetables for the feast. It is also rubbed on the knife and on the hands of people who are going to prepare the food. Rubbing the herbal ointment on the knife is necessary because the belief is that it will boost the energy of the food-preparing-hands so that there is more food peeled, prepared and cooked.

As is evident in this indigenous knowledge system, herbs or plants are crucial elements towards making the various potions. In the work of *manteng-i-masung*, the *kurip* or leaves that are used in this indigenous knowledge must be gathered by the lower-tiered workers. The potions that are extracted from these strictly-kept-secret plants are used in four significant areas:

1. The potions that are placed under the stones of the earth-oven (*imun*) or (*Bil ite ago nei imun*)
2. To be mixed with peeled vegetables (*ane si fok i-kakal*)
3. Since the introduction of foodstuff such as rice and sugar in feasting activities, potions of *manteng-i-masung* are now frequently mixed with these introduced food stuff (*ane si fok masta, rice, sugar*)
4. To be placed as a charm (*aolem*) in the gateway to the food preparation area (*aolem – mete keve selen*).

During the actual day of feasting, when the guests are being served, the *moi-i-sasagi* (herbal ointment used for food handling) is used. In this stage, cooked food parcels are delivered to the guests by attendants who have been rubbed with the *moi-i-sasagi* ointment. The age of persons who possess feast making knowledge is usually thirty years and older, however, trainees as young as

eighteen years old have been known to participate due to careful nurture and selection by close relatives based on the criteria and selection for a *vau* to be.

Example 2: Sardine farming

The second indigenous knowledge of Lavongai Island to be discussed is that of traditional fish or sardine farming.⁷ Any first-timers who might come face to face with a Lavongai person who nurtures sardine (*inavu*) or any fish species for that matter, will attest to the Lavongai using cosmological connotations and physical rituals in carrying out the art. However, they are not mere superstitions. The associated rituals are part of the various acts needed in his art for the invocation of supernatural fulfillment (*kanang*), strengthening his personal resolve in his capabilities/talents and reinforcing community belief in the just cause and beneficial intentions of his art. The linkage between the spiritual and the natural has in part played the crucial role in fostering sustainable and proper use of the natural environment.

An expert in the art of fish farming gives a perceptive description of the interconnectedness between nature and the capability of humans to summon the instinctive life cycle of fish (Gregor, personal communication, dated January 8, 2006). The fish has a brain and to summon its obedience, the enlightened man *vau* who is literally a half-man, half-spirit must have the legitimate '*anit*' (spirit). To acquire and replicate control over the reproductive and nurturer role of Mother Nature, a series of rituals must be performed and plant species must be used.

The first step that must be undertaken is the cleansing phase. This is where the river systems that feed the reef are 'cleansed' of man-made impurities or any natural unclean substance (for example, rotting carcasses of a dead animal). This process where the river system and the reef/salt water are cleansed is called *las*. For the sea reef to nurture and sustain the existence of the sardine, the process of *akala* (cleansing) is necessary. A highly polluted river or reef system cannot be the appropriate medium for the sardine to thrive. Some of the notorious pollutions that confront the fish farmer are coconut husks (*peniniu*), used food parcel leaves (*ingere i-fok*), human excrement (*ita*), blood from menstruating females and common household rubbish (*mung*) that have been dumped into the sea.

During this period, the *tediuos* and elaborate processes and rituals culminate in the creation of the *ngoto* and *kaning*. Rituals involve *alal* (fasting or no food/water intake) and *alalai* (avoidance of other human company). The different approaches to farming the varieties of fish are also taken into consideration. One week of fasting and seclusion is undertaken when the fish nurturer is keen on cultivating the fish from their earliest growth stages. For

⁷ Simon Foale (2006) raises his doubts about serial prohibition or *tambu* in the nurturing of fish stocks in some Melanesian countries. On Lavongai Island this form of traditional fishery management was called *vala*. It is used today.

fish species that are already matured, three days fasting, involving rituals and the use of herbal intermediaries, is undertaken.

Intermediary use is made of herbs and plant species that are gathered and dried on specifically built beds (*pata-i-atailai*). Though the herbs that are used in this indigenous fish nurturing practice are a common sight in the bush and environment on Lavongai Island, it is in the art of *atu inavu* (sardine nurturers) that they are known only to the specialist fish nurturers.

There is also the need for preventative measures against jealous or competing rivals who may wish to destroy the work of the sardine/fish nurturer. The herbal category that is believed to have this property of nullifying the conspiratorial intent to destroy is the *babat* (wall or defenses). *Babat* acknowledges the existence of rivals who might try to challenge the powers and good intentions of the intended nurturer of fish.

Secondly, the herbs⁸ that are collected are used as *kaning* (herb mixtures that are sensed by the fish). This period of establishing an attachment with the fish is referred to as *pakakit* (to strengthen). The *kaning* is placed on stones gathered in the reef (*ngoto*) or at the mouth of tributaries (where fresh water from rivers, streams or inland water sources meet the salt water). The fish has a brain and its growth and subsequent maturity must always be attached to its place of origin. The fish or sardines become receptive to the *kaning* and instinctively remain with or follow the scent of the *kaning*. The human agent acts as a nurturer when he establishes or erects the *ngoto* (piled reef stones/boulders) on the reef and locks (*ngoms*) the herbal mixture under the pile of reef stones/boulders.

The use of this indigenous knowledge is elaborate and strict discipline is required. After the first successful appearance of the sardine or fish under the care of a traditional fish nurturer, he immediately acquires the *vau* (half-spirit, half-man) status. This means that he has unlimited power within his human body to summon the fish. The fish that adhere to the call of their nurturer are known as *Maltamana*. The fish hear or feel the presence of their nurturer and promptly find their way to the place where the *kaning* was transplanted under the *ngoto* (piled stones/boulders on the reef). It is also worth mentioning that self-fulfillment of these various acts or processes and rituals is evident. Signs that tell the traditional fish nurturer that his work is complete and successful range from a green lightening or when a sea tern (*kanai*) or a school of fish is being fed upon by sea birds (*aut*). Through these signs the traditional fish nurturer can be assured that his work has been accomplished.

Example 3: Myths and legends

The third indigenous knowledge of Lavongai Island to be discussed is that of myths and legends. Oral traditions and mythology, reinforced through the

⁸ The names and species of some of these plants are known only to the custodian of this knowledge

existence of the natural wonders in the landscape of the island, have a role in the socialization of the young Lavongais to the knowledge of the supernatural (*pukpukis*) creation of their island. The legend on the creation of the Lavongai Island involved the wonders of one magical figure by the name of *nat-i-nei pies* (child of the sand). It explains the chronological evolution of this hero from a lifeless form in the whirlwind of sand, foam and earth. Lavongai mythology points to the site of his creation as in the east of the island, an area called *Nei-vakapa* (vast expanse), near Luan. This area is the sacred site of Lavongai's creation and is reinforced through the oral accounts of the works of culture heroes such as *nat-i-nei-pies*. To this day, this area is rendered sacred and untraversed land due to its mythical and mystic nature.

Another role of legend are the myths of mythical creatures, both benevolent and malevolent such as *masalais*, *mus*, *ainan-vua-ngai*, *makanaketket* and *matatun*, who inhabit certain localities or natural features on the island. The oral transmission of knowledge has a role as it gives effect to the sacredness of certain areas of the island and they serve as taboo areas where mortals dare not trespass for fear of being cursed. Therefore the use of the natural environment, and the Lavongais exercise in sustainable development were contextualized into their spiritual and material co-existence with supernatural beings.

Myths about caring and respect for animals, plants and people are told to young ones in the evenings when there are no disruptions and the child's mind is allowed to recreate scenes and settings for such. One myth is about two brothers who go out in a canoe one day. On the way they pass a heron that is struggling to crack open some nuts. The heron requests the help of the young men. The younger brother offers to help and in return he is offered some nuts and told to use these when he extracts lice from a witch's hair. The young man extracts lice and cracks the nuts and the witch is happy that the lice are being killed. The witch gives the young man a young coconut and tells him to leave it at the back of his canoe. The coconut is transformed into a young woman. The lazy elder brother is determined to have a wife, does not help the heron, grumbles about looking for lice and is given a dried nut, which is transformed into an old woman who becomes his wife. Myths such this reinforce the socialisation process of teaching the young about the importance of caring for animals and people.

Example 4: Birth control

The fourth indigenous knowledge of Lavongai Island to be discussed pertains to birth control. Although the knowledge traditionally would have been kept specifically within the confines of women, in recent times both women and men are in possession of such knowledge.

Instances of birth control referred to in this case concerns circumstances involving:

1. a disabled or handicapped young woman, and for her safety in terms of not being able to nurture and care for a child and or in events where

- males may take advantage of her disabled condition for sexual pleasures and or in fear that the offspring may be born abnormal
2. a sickly female to safeguard her health
 3. a mother who has more than five children and has experienced problems giving birth
 4. a mother whose husband is a womanizer or a 'good for nothing' and where he is bound to neglect the children and mother.

Based on the above types of circumstances, a mother or grandmother or aunt of a woman in question approaches the keeper of the birth control knowledge. The person with the knowledge gives some thought and asks if one is sure about their decision to invoke birth control.

The day before a woman is to take of the birth control juice, she is told not to take any food upon waking up. Very early in the morning without having had a meal, the keeper of the birth control knowledge goes to the bush where the bark of a specific portion of a tree trunk⁹ is scraped upward by use of a sharp shell, collected as desiccated pulp and placed in a leaf of a certain *gorgor* (non-smelling type) plant and made into a small parcel.

The keeper of the birth control knowledge gets back to the village in time for the recipient who would have woken up to drink of the potion. At the village, half a cup of water is mixed with the pulp which is in the leaf parcel, and these are squeezed and the juice poured into a cup. The recipient drinks the juice and the drained or dried desiccated pulp is cast onto a thatched roof where it will dry up and wither.

After that, the woman, whether disabled, or has not had a child in the last few months, or who has just given birth to a new infant, should abstain from having sex for at least one year. The woman will still have her monthly menstrual cycle, but at the end of one year, it will be impossible for her to conceive and her uterus will be deemed *ngolo* (dry or withered and shrunken).

A woman can choose either to remain barren or to conceive after a while if she so wants. Where a woman chooses to bear more children she must contact the keeper of the birth control knowledge. He must locate the tree from which the bark was first grated. There the keeper, using the shell scraper, re-scrapes the area. This time instead of scraping upward, the scraping is downward with the desiccated bark-pulp allowed to fall to the ground.

There have been instances where trees used for birth control potions have been cut for gardening and other purposes resulting in young women not being able to conceive again.

⁹ Tree known to the custodian of this knowledge

Conclusion

Contrary to claims and thinking that indigenous knowledge is inferior to Western knowledge and a hindrance to development, the existence of the humans on Lavongai Island is testament to the value of their indigenous knowledge as they continue to thrive off or with Mother Nature. This indigenous knowledge system is dynamic in nature and belongs to a group of people who live in close contact with the natural world, allowing for respect and co-existence of them and their environment. On Lavongai Island in the Pacific region there is a reservoir of indigenous knowledge used by that society for the benefit of its inhabitants. Most of this have not been documented.

Highlighted in this paper have been four selected examples from the body of Lavongai Island indigenous knowledge. These included oral traditions for feast making, sardine fishing, myths and legends to socialize the young, and birth control. This indigenous knowledge is for community benefit. Myths and legends serve as socializing and ethics and moral education to instil in upcoming citizens the requirement for respect for people, plants, animals and one's environment and even enemies and that one has to only cause harm in self defence. Harming others or the environment will result in suffering the consequences. The art of feasting is learnt and used for hosting of feasts in which members of the community come together and share the food and thus benefit from the environment that they all share, while fish farming is an art that allows for fish to be made available for the community for sharing and consuming during festive occasions. Likewise, the use of plants and trees for birth control purposes is knowledge to ensure women as child bearers are protected.

The indigenous knowledge of the people of Lavongai Island is an embodiment of age-old traditions that have been passed on from generations since the ancestors landed and inhabited the island. Knowledge can be of general nature such as myths and legends or specific. Where the knowledge is specific, these are handed down only to selected persons after much discretion and detection of who should be the next keeper of such knowledge. Despite the 'greed' associated with the way in which the knowledge is jealously guarded, protected and confined to the keeper of unique, specific knowledge, these bodies of knowledge are usually always for the good and sustainability of the community and its members. Such knowledge is not to be handed down to just anyone, but only to those who are deemed and found qualified to guard such knowledge with utmost wisdom and secrecy¹⁰

Recommendations

The four examples of indigenous knowledge highlighted in this discussion constitute bodies of knowledge of the Lavongai people, which has been

¹⁰ Two handsome youths known to the authors begged a fish farmer to impart such knowledge to them and were denied, the explanation being that the power of such if abused could attract women unnecessarily.

undocumented. This is due to the lack of a documentation program by the national Papua New Guinea National government, the New Ireland Provincial Government and the Lavongai Rural Local-level Government. Some suggestions or recommendations in view of the above include:

1. For the Papua New Guinea National Government through its UNESCO office to have in place a documenting exercise for the documentation of indigenous knowledge of the people of Lavongai Island
2. For the New Ireland Provincial Government to sponsor a purpose built Cultural Resource Centre to house all documentation materials pertaining to local indigenous knowledge
3. For interested organizations to sponsor a documentation exercise of the indigenous knowledge of the people of Lavongai Island.

Bibliography

- Billings, Dorothy 2002, *Cargo Cult as Theatre – Political Performance in the Pacific*, Lexington Books, Lanham.
- Boskovik, Aleksandar 1999, Anthropological approaches to the study of Myth, Brasília: Serie Anthropologia, accessed from www.unb.br/ics/dan/Serie252empdf.pdf [April 25, 2008]
- Busse, M. and Whimp, K. 2000, 'Introduction', in Busse, M. and Whimp, K (eds.) *Protection of intellectual biological and cultural property in Papua New Guinea*, Asia Pacific Press, Canberra, pp. 1-28.
- Foale, Simon 2006, 'Is coral reef conservation possible without science education in Melanesia? Is science education possible without development?', Research School of Pacific and Asian Studies, Canberra, The Australian National University, accessed: April 30, 2008
[\[www.coralcoe.org.au/research/publications/Foale_ICRS_2006.pdf\]](http://www.coralcoe.org.au/research/publications/Foale_ICRS_2006.pdf)
- McElroy, Ann and Townsend, P. K. 1989, *Medical Anthropology in Ecological Perspective*, 2nd edn, Westview Press, San Francisco.
- Sumbuk, Kenneth 2004, 'Who owns a language', in Ranasinghe, R. (ed.) *Wanpisin*, The School of Humanities and Social Sciences, University of Papua New Guinea, Port Moresby, pp. 79-90.
- UNDP (nd) *Conserving Indigenous Knowledge: Integrating Two Systems of Innovation*, An independent study by the Rural Advancement Foundation International commissioned by the United Nations Development Program.

Authors

Patrick Kaiku works with the National Research Institute (NRI) as a project research officer in the social and environmental studies division. He is a graduate of the University of Papua New Guinea having majored in political sciences, but with keen interests in the areas of anthropology.

Mrs Tukul Walla Kaiku is a lecturer in records-keeping, archives and information, and communication at the School of Humanities and Social Sciences at the University of Papua New Guinea. She is a member of the Nguma (crow) clan from New Hanover Island (Lavongai) in the New Ireland province.