Towards Environmental Sustainability: Beliefs and Livelihood Practices of Tagbanuas in Buong Narra Palawan, Philippines

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Abstract. Tribes in upland areas serve as environmental stewards of their ancestral domains. The Tagbanuas in Buong Narra Palawan belong to the group of Tagbanuas, inhabiting the central areas in the province of Palawan Philippines. They practice their own culture, and beliefs in their livelihood. This study determine the profile of Tagbanua in terms of; origin and history; physical characteristics and political system. Their beliefs, rituals and agricultural practices that is geared towards environmental sustainability was also evaluated. Descriptive research methods using documentary analysis, observation, community immersion and video interview was employed. Results of the study showed that the Tagbanuas in Buong Narra Palawan strongly believed on the influenced of deities in their livelihood practices. Their means of safeguarding their environment is implied in their day to day activities as; rituals (pagdiwata, runsai, pagbubuwis, paglalambay); performed for good harvest. It also practiced to free from epidemic like cholera, dysentery and flu. The practice rituals in their swidden farm, honey and rattan gathering is also an implication of protecting their environment.

1. Introduction

Palawan is the province in the west part of the Philippines, and is home to several indigenous ethnolinguistic groups such as Tagbanua, Pala'wan, Tao't Bato, Molbog, Batak, Agutaynen and Cuyonon. The sitio of Buong is situated in the boundary of two municipalities, Narra Palawan and Aborlan Palawan. Narra is a coastal municipality in the island province of Palawan. The municipality has a land area of 831.73 square kilometers or 321.13 square miles which constitutes 5.68% of Palawan's total area. Its population as determined by the 2015 Census was 73,212 (Figure 1) [1].

Aborlan Palawan, is a first class municipality located in the Southern part of Palawan, Philippines. It is situated at the central portion of Palawan Island, 69 km southeast of Puerto Princesa City (Figure. 1). It is located at 118°32' 53" North longitude and 9°26' East latitude. It lies in a vast plain between the Sulu Sea and the mountains. Bounded on the east and west by rich and mighty bodies of water, the Sulu Sea and the West Philippine Sea facing South China Sea, and comprises part of Palawan Island’s almost 2,000 kilometers of coastline. Generally, the soil of Aborlan can be classified into rough mountain soil type which is suitable for forest growth and preservation purposes comprising about 57% of its total land area, and clay loam which is suitable for agriculture comprising about 40%. The topography ranges from flat near the shore of the eastern and western part to rugged mountainous in the central and southwestern portion of the municipality. The total land area of 80,733 hectares is covered with different land use types, of which about 54.8% is forest [2].

The sitio of Buong is under the village of Estrella and is located very close to the village of Dumanguena Narra Palawan (Figure 2) was formerly under Aborlan Palawan. But due to proximity of the said sitio to Narra Palawan, it was now under the municipality of Narra Palawan.
Figure 1. Location of Narra Palawan

Figure 2. Sitio Buong, Narra Palawan (Municipal Planning & Development Office 2019)
Sitio Buong is known for local tourist due to its pristine falls known as Inuman Banog Falls (Eagles Drinking Falls). It is accessible 45-minute ride by any land transport service to Sitio Buong, almost 1.5 hours hike to the falls. The falls seize the interest of local tourist during summer in particular, because of its natural beauty and refreshing cold water (Figure 3).

Figure 3. Inuman Banog Falls in Buong Narra Palawan Philippines

Tagbanua tribe is one of the members of Philippine Indigenous People. The Philippine Indigenous Peoples Rights Act (IPRA) of 1997, explain that, indigenous peoples are also called indigenous cultural communities. It is a group of people or homogenous societies who have continuously lived as organized community on communally-bounded and defined territory since time immemorial. IP’s in the Philippines under claims of ownership, occupies possessed customs and traditions. Likewise, they have distinct cultural traits which differentiates from the majority of the Filipinos. The indigenous peoples have retained their own social, economic, cultural and political institutions but may have been displaced from their traditional or ancestral domains at the time of conquest or colonization and the establishment of present State boundaries [3].

Tagbanuas in Buong Narra Palawan are highlanders. They tend to seclude from the lowlanders with their own culture, beliefs and livelihood practices. They inhabit the sitio of Buong and practice farming in the upland as their main source of income. Like the Maori tribe of New Zealand the Tagbanua in Buong Narra Palawan embodied the idea in the Maori word ‘kaitiakitanga’, which means guarding and protecting the environment in order to respect the ancestors and secure the future.

This study seeks to find out the following: What is the profile of Tagbanua in terms of; origin and history; physical characteristics and political system. It also determines their beliefs, rituals and their agricultural practices that is geared towards environmental sustainability.

2. Methodology
This study is an ethnographic-descriptive research, using data analysis gathered through interviews using interview schedule, and observation gathered during the community immersion in sitio Buong, village of
Estrella, Narra Palawan, Philippines. Documentary analysis and video interview was also employed to enrich the data gathered. Ethnographic research consists of multiple methodological approaches, including short- and/or long-term participant observation, interviews, photographs, videos, and group field work [4]. The Municipal Planning & Development Office (MPDO) of Narra Palawan supplied the total population of Buong (2018) which was 422, with 94 households. The expansion of the Internet and social media has boosted researchers to perform virtual ethnography or net-nography. It rests on the argument that the ethnographer should experience the social life of the research subjects regardless of how those experiences are mediated. Related to this, ethnography can be global, multi-sited and mobile in the sense that researchers follow people around physical and virtual place [5].

3. Results and discussion

3.1. Profile of Tagbanua tribe

3.1.1. Origin and history of Tagbanua tribe
The name “Tagbanua” literally means “people from our place. “Banwa” means country or place [6]. The tribe is found mostly in the Central and northern portion of Palawan. It is one of the oldest ethnic groups in the Philippines, that can be mainly found in the municipalities of Aborlan, Quezon, Calamian islands, Baras Coast, Busuanga island, Coron island, in some parts of El Nido, and even Puerto Princesa City. This tribe live in remote villages, mostly in mountains and coastal villages of Palawan. According to the province’ history. The ancestors of these indigenes have occupied Palawan long before the Malay settlers from the Majapahit Empire of Indonesia arrived in the area during the 12th century. The discovery of Tabon Cave in Quezon Palawan by Dr. Robert Fox in the 70s enabled historians and archeologists perceived that there is a community of Homo sapiens in the Philippines, possibly for more than 50,000 years ago. Tagbanua language, alphabet, the practice of swidden farming, and a common belief in soul relatives, has similarity with Tabon man. Tagbanuas live in compact villages of 45 to 500 individuals. In 1987, there are about 130,000 Tagbanuas living in Palawan. At present, however it dropped to only around 10,000, 1,800 of which are located in Calamianes. Tagbanuas have their own unique government system that is being practiced by both the central Tagbanuas and Calamian Tagbanua [7]. Tagbanua in Buong Narra Palawan belongs to central Tagbanua, since they inhabit the mountainous areas in the central part of the province, the boundary between municipalities of Aborlan and Narra Palawan.

3.1.2. Physical characteristics
Tagbanuas are brown skinned people with slim erect stature and has straight hair. This ethnic group is divided into two groups; Central Tagbanua and Calamian Tagbanua. The two groups speak different languages and do not have exactly similar customs. Although some older men still prefer to wear G-strings for comfort, most of them are dressed like the non-tribe lowlanders. Many are able to speak and understand Tagalog and other dialects spoken in Palawan [8].

3.1.3. Political system
The masikampu/chieftain is at the apex of this hereditary chieftain class that the Tagbanua inherited from the Moro or Islamized Bornean chiefs. It probably replaced an earlier leadership by elders; however, authority is still identified with seniority. Laksamana, Mudadi, Pangara, Tumindung, is their secondary hereditary leaders. They are legal guardians of clans, their counsel may extend to cases involving nonrelatives which may be regarded as interfamilial. Their offices are largely independent and, unlike the masikampu, their powers depend on personal ability and popularity. However, among these leaders, the Maradya, Saribangsawan, Nakib, and Sabande are by tradition and custom superior designations. At present, the villages fall within the jurisdiction of the Municipal District of Narra, though native participation here remains ambiguous. The district is principally administered by the mayor, vice-mayor, three councilors, and police chiefs. Theoretically, the view of the mayor in Narra, outweigh those of the masikampu. The minor Tagbanua settlements are classified as sitios. The barrio is headed by a barrio captain or lieutenant called tininti. A municipal appointee, he mediates between the district and barrio. Tagbanua political organization maintains considerable autonomy through their chieftain. Interpersonal relations are guided by kinship and a judicial system which preserves custom law [9].

3.2. Beliefs and rituals
Tagbanuas are very dependent on the environment. Their source of food, livelihood, and cultural ways always depict dependency from the environment. In return, the community elders and members respect and maintain the health of their ecosystem.
Beliefs and rituals; the ritual of “paglalambay” or offering is also done to call upon good harvest and rain. As part of traditional pest management and belief of purifying, and appeasing positive spirits, dauput or smoking by burning chosen wood and uttering prayers around the agricultural land is done. There are also rituals against epidemics of smallpox, cholera, dysentery, flu, and other epidemic diseases. The—pagbuyis is performed by the magbuyis three times a year. The venue of pagbuyis, is a large permanent ceremonial platform, called piyangaw. It is built in front of the house of the magbuyis. Offerings of katumbal twigs with their red pepper fruits, the favored food of the salakap datu, are made on this platform. The first pagbuyis is done in November, and the second in December. During this whole period, the ayan (northeast winds) are blowing. The third is when the moon can be seen during the daytime, called magkaaldawan (from aldaw, day). During one of the rituals, the magbuyis calls upon the salakap to plead to them not to capture the souls of the Tagbanua as they sail with the northeast winds in their huge boat called sakayan, with their cargo of smallpox, cholera, dysentery, flu, and other epidemic diseases.

The runsay is described as the most dramatic of all Tagbanua rituals. The runsay, like the pagbuyis, is held to ask for protection against epidemics. It is done only once a year, at nighttime, on the fourth day after the full moon of December. The ritual begins at dusk and ends at dawn. The Pagdiwata(deity) is a religious practice of the Tagbanua performed to cure sickness or to show gratitude after a bountiful harvest or before planting. They believe in a supreme being called "Maguindusa” who is the creator of heavens and the earth. Tagbanuas believe that the Pagdiwata invokes all the gods to come down and join in the ritual using rice wine (tabad) as a come-on. Maguindusa, the most revered and most powerful of the diwatas, comes last cloaked in suspense and mystery. He comes down from the sky on a mythical boat guided by candle lighted bamboo poles. The Tagbanua's religious leader also functions as a healer of the community and is called “babaylan”. He exerts influence upon the daily life of the people. His main function is to guide a person's relationship with the dead who are his soul-relatives. He also mediates with the great hierarchy of "diwata" and with the spirits who roam and inhabit the nearby environment. The ritual/ceremony takes place in the evening and deep into the night, with the babaylan, a high priestess who goes to a trance to intercede the spirits of their relatives and ancestors. The ritual is performed around a generous heap of rice in the middle of a pagbuysan altar surrounded by betel nuts, red cloth, candles, sweets, rice cakes in young bamboo stem, native cigarettes and chickens. The Tagbanuas believed that if the tabad is not prepared in the prescribed way, Maguindusa will not show up, thus depriving the people of their hope for healing and guidance. In sequence, several diwatas possess the babaylan who manifest the presence of the fairies by going into trance dances, vigorous as males and gentle as females [10].

3.3. Agricultural and livelihood practices that is geared towards environmental sustainability

3.3.1. Pagdiwata used in Agricultural Practices

Pagdiwata (diwata, “deity”) in Buong Narra Palawan is still observe. It is a dance originating from the Tagbanua tribe which depicts rituals after a rice harvest. The Tagbanua are upland farmers who disperse to their fields in the planting season. Prior to land preparataon, selecting the field to prepare requires a ritual where the afrmers ask the “diwata-Maguindusa” for intervention. To speak with the other spirits and request for permission to work the land. The farmer ends the ritual with te words “I know nothing, you can see,” and is not allowed to revisit the agricultural land for three days in order to allow the spirits to “talk” to each other. Rituals allow communication with the “diwata” letting the farmer know if the spirits will be benevolent, blessing the harvest, or malevolent. Another “pagdiwata ritual” conducted on the cleared agricultural land opens the rice planting activity (papapanggas), right before the sowing activity (sungrod) starts. Before the dawn, the famerheads onto his or her farm in order to build an altar (papag). And say some prayers asking for blessings. The ritual come from wider Tagbanua belief, that a good harvest is not the result of a farmer’s skills or seed, but rather of the blessing of the “diwata” and God: Explaining plant growth in magico-religious terms. This supernatural beliefs system provides believers with peace of mind and helps cope with stressful events [11].

After harvest, they regroup to their village to celebrate the “pagdiwata ritual.” Each family brings wine, tobacco or betel nut. The beating of the gong signals that the ritual is to take place, and by mid-afternoon the villagers begin to congregate. The ritual of the “pagdiwata” is geld after the rice harvest on the last three days of the afternoon. The purpose of the ritual is to ask “Maguindusa” (supreme deity), the other gods and the spirits of their ancestors for a bountiful harvest and well-being of the supplicants [12].
3.3.2. Swidden Farming viewed as sustainable practice.

Swidden farming is observed in Buong Narra Palawan. It involves temporary cultivation of plots, which are then abandoned and allowed to revert to their natural vegetation. Swidden also yields crops with multiple functions. Cassava for example, is used for emergency food shortages, for feeding pigs, for making sweets, and for selling to migrant paddy farmers [13]. The newly cleared land for planting is a time for biodegradation of organic materials in the land, which is a source of organic fertilizer. The hilly terrain and rainfed land of Buong Palawan, deterred the tribe to use commercial fertilizer and hybrid varieties of rice and corn. Tagbanua in Buong, continue to practice traditional Swidden cultivation. It provides Tagbanua families with basic food. Their farming practices tend not to progress since intensified farming requires training of skills and capital for farm input. Plant seed sourcing is from their parents, previous harvest and from other farmers. The practice of seed sourcing displays “bayanihan” spirit. It is a culture of cooperation among Tagbanuas, wherein a farmer helps in land preparation of the other. There are many reasons why they stick to Swidden farming. Low level of education is also a deterrent factor to seek employment that requires special skills.

Tagbanua farmers in Buong Narra Palawan prepare their farm during the early months of the year. At the onset of summer season, they burn the area to be planted. At the onset of rainy season which is usually on the 3rd week of May, planting of upland rice is undertaken. Upland rice long varieties takes around 130-136 days from sowing to harvest, thus the waiting time for the harvest is quite long. While waiting for harvest time, they plant root crops which can sustain them during lean months. Fallow time is 2-3 years, to regain soil fertility. Thus, Tagbanua in Boong Palawan still support sustainability in their tilled lands. They used several areas for their swidden farming to allow the land to rest, vegetation to recover before re-cultivation of the land, to regain its fertility. Henley (2011), Lal (2015) attested that Swidden farming still exist and researches viewed it as sustainable. Under traditional conditions, it is now assumed, swiddening was a sustainable practice and cultivation cycles were long enough to allow forest to regenerate during the fallow interval [14]. Soil fertility is restored by long periods of falling over from other farmers. The practice of seed sourcing displays “bayanihan” spirit. It is a culture of cooperation among Tagbanuas, wherein a farmer helps in land preparation of the other. There are many reasons why they stick to Swidden farming. Low level of education is also a deterrent factor to seek employment that requires special skills.

Pest management like weeding is usually done in the months of June to July, allows the swiddeners to maintain land productivity without use of conventional agricultural inputs. Planting structure is not random, but varieties are arranged and marked by various rites, and rituals. This include —tedlak or an altar like structure erected in the agricultural land as medium of blessing the rice seeds and appeasing the —panyaen or forest spirits to render good harvest and avoid sickness. The varieties mentioned are tipak, mandiwa, malandi, pindinggan and mandiwara, minantika and liyawang for glutinous rice. Legumes, rootcrops and vegetables are planted in the outer perimeter [16].

The tribe of Wanniyala Aetto of Sri Lanka practice farming similar to swidden farming of Tagbanua in Buong, Palawan. They traditionally practiced a form of agriculture called chena cultivation. The forest plots are cleared for one or two years and then left to rest for seven or eight. The plots look untidy, with a multitude of different plants coexisting, rather than neat beds of specific crops, but this diversity is the key to both their ecological value and their economic importance to the Wanniyala Aetto. During the fallow periods, the regenerating plots continue to provide for the community – from animals to hunt to a range of forest products including medicines, fibres and fuel. In these communities, forests are a valued part of their livelihood system – rather than something to be cleared to make way for fields. Similar practices was observed among The Jumma tribes in Chittagong Hill Tracts of northern Bangladesh wherein they have developed this farming system to suit the rugged, hilly landscape in which they live. Poor soils not suited for permanent cultivation became the site for swidden farming. Tribal communities have developed ways of ensuring a diverse and sustainable supply of food from swidden farming, rather than high, but short-term, yields in permanent cultivation [17].

3.3.3. Livelihood from non-timber products

While waiting for the harvest of their agricultural crops, Tagbanua in Buong Palawan look for other sources of income. They usually depend on the non- timber products, since the law on total log banned is strictly observed and followed in the province of Palawan, which is known as the last frontier of Philippines. Tagbanua couples are known as experts honey gatherers. The wild honey in the entire province had been known to have excellent quality. Even in honey gathering Tagbanuas practiced rituals as symbol of respect to the gods of forest. Before honey gathering, usually the wife or companion, notify the spirit of the tree by rinsing the trunk of the trees with water. To enable the honey bees to leave their bee hive, the companion of honey gatherer will burn coconut husk towards the direction of the beehive.
The honey gatherer will immediately climb on the branch of the tree holding the beehive, as his companion continues to burn the coconut husk. When the soldiers and worker bees had left the hive, he then removes the hive and placed it in plastic pail. This practice is a vouch for sustainability since the bees are keep alive and just repulse from that specific location of their hive.

Another source of livelihood from non-timber products is rattan gathering. Like in honey gathering, rattan gatherers practice respect for gods of forest by rinsing water to the big trees where the vines of rattan coils. After which they will pull rattan vines hanging from tall trees. The matured rattan vines are harvested leaving the un-matured vines in the forest. These rattan vines are handcrafted as baskets, furniture and sold in the lowlands during fleas markets which is usually during weekend.

Tagbanuas in Buong also raised native chicken and swine in their backyards. For them it is a source of income while waiting for their harvest. They usually sell native chicken and pigs during flea markets in the lowland. A study in Myanmar also posited similar findings, wherein the introduction of terrace farming, development of animal husbandry, marketing of non-timber forest products, and other activities that generate cash income have reduced dependency on Swidden agriculture [18].

4. Conclusion
Studying environmental sustainability, entails the study of tribal communities living in either upland or coastal areas, where the tribe is located. Examining and evaluating the cultures through their beliefs and livelihood practices enable environmentalist, determine whether the tribe help in the environmental sustainability of the area. The tribe of Tagbanua in the upland of Buong Narra Palawan strongly believed, on the influence of deities in their farming practices and protection of their constituent, against epidemics. They practice several rituals such as pagdiwata, paglalambay, runsay etc. Swidden farming is their traditional way of farming that secures food and allow several fallowing years. Those practices is their way of guarding and protecting the environment in order to respect the ancestors and secure the future.

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