

# Interfacing of Indigenous and Modern Knowledge Towards Effective Community-based Natural Resource Management

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## Abstract:

Philippine laws recognize the rights of indigenous peoples “*to own, manage, utilize and protect ancestral domains*” which they traditionally possess since time immemorial. Most remaining forest covers are situated within these ancestral domains. And in managing and protecting their natural resources its vital to determine a guiding framework that does not alienate them on their culture, traditions and indigenous knowledge. Instead, enhances and develops their community knowledge and cultural practices as traditional forest-keepers while integrating culturally appropriate modern knowledge. This paper presents the entire process of harmonizing indigenous and modern knowledge in coming up with sustainable natural resource management mechanisms. While introducing the GIS technology without prejudice to indigenous viewpoint in looking at spatial conditions of their ancestral territory.

Keywords: *Forestry, wildlife, agricultural systems*

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## Introduction

Since the enactment of the Indigenous Peoples Rights Act (IPRA) in 1997, several development plans have been formulated covering ancestral domains facilitated by various government agencies. However, these plans followed specific development interventions that a particular agency is implementing. In 2004, almost seven (7) years later after the enactment of IPRA, the National Commission on Indigenous Peoples<sup>1</sup> (NCIP) came up with the guidelines<sup>2</sup> that provide a common framework in formulating the Ancestral Domain Sustainable Development and Protection Plan<sup>3</sup> (ADSDPP). However, the guidelines only provide the general framework as to process, format and institutionalization schemes. On the other hand, government plans from the local to the national level strongly based their programs and intervention mechanisms on mapped out physical framework and spatial allocation of lands. In this case, interfacing the community-formulated plan of the indigenous peoples based on the guidelines with the development plans of the local and national governments are consequently limited only to identified projects and programs.

But what is more crucial in ancestral domain management and protection based on the indigenous peoples inherent rights over ancestral territories is the recognition of their collective vision how the land and natural resources are allocated for present and future uses. Since rights of indigenous peoples to ancestral domain also include the right to decide the appropriate allocation of their resources. But in almost all cases, physical framework and land use planning done by government agencies does not properly inform the indigenous peoples nor give enough opportunity for participation. At the outset, indigenous communities continued to be deprived of their preferential rights to access and utilize natural resources within their ancestral territories.

In the broader context, the country at present has no National Land Use policy that will guide development planning at all levels of governance. As a substitute, what are being used as policy guidelines in physical framework planning are numerous guidelines created by various government agencies possessing administrative mandate on certain natural resource and spatial domains. For instance, the Housing and Land Use Regulatory Board's<sup>4</sup> (HLURB), implements guidelines on Land Use Planning for local government units. The Department of Environment and Natural Resources (DENR) pursued several guidelines on Natural Resource Management Planning such as forestry, mining and protected areas. While, the Bureau of Fisheries and Aquatic Resources (BFAR) provides for guidelines on Fishery Development Planning. In most cases, these guidelines are in conflict with each in the operationalization at the community level.

It should be recognized that the dynamics in managing an ancestral domain is very complex. Although the state recognizes the rights of the indigenous peoples to own ancestral domain that since time immemorial have been occupied and possessed by their tribe and handed down by their ancestors from generation to generations. Yet, the complexities are caused by the overlapping of the ancestral territory that the indigenous peoples would own pursuant to existing laws and that of political subdivision that form part of the sovereign territory of the State. Such political subdivision or local government units have their own legal mandates and governance structure in the same way as indigenous people's community over their ancestral domains. In several cases, these governance structures clash with each other in asserting administrative authority on the same geographical area. Ideally, pursuing the self-governance rights of the indigenous peoples should not isolate them from government institutions that in the same way have legal mandates over the domain. However, it should also be emphasized that while there should be an effort to harmonize all other legal frameworks related to physical framework planning, rights of the indigenous peoples should not be sidelined and jeopardized in the process. The protection of their constitutional rights should be the core of the entire harmonization process as well as the protection of their cultural integrity.

The concepts and interfacing mechanisms herein outlined are results of our engagement in an indigenous peoples community in the Southern Philippines. Our organization as an advocate for community-based natural resource management provided them with the technical assistance in collectively drafting a sustainable resource management plan including community rules on resource management, protection, conservation and utilization.

In 2004, the community that we assisted was awarded by the government with a Certificate of Ancestral Domain Title (CADT), a tenorial instrument issued as a formal registration of the private and communal ownership of the community over their ancestral domain<sup>5</sup>. The community belong to the Mandaya Tribe, descendants of the third wave of peoples who came the island during the late metal age (500 B.C.) bringing with them their knowledge on iron smelting and rice agriculture. The name of the tribe derived from their own vernacular which literally means "first people to settle upstream" and is descriptive to their preferred place for abode which is the upstream or upper portion of rivers and headwaters. Thus, historically and culturally, the tribe since time immemorial, are revered protectors of headwaters whose life and survival are significantly attached to major river systems.

The entire domain covers an area of 15,000 hectares and occupied by 2,723 indigenous inhabitants. Remaining forest cover accounts 80% of the entire land area. The settlement is situated in a valley surrounded by very steep mountain ranges and thick forest cover. The biophysical condition of the community isolates them from the town

center with no access roads. To reach the area, one has to travel on foot through trails that traverse under a very thick mossy forest.

Hence, these are the challenging context that this paper hopes to address. It also helps to provide some insights on how community property rights and access to resources are protected and enhanced.

## **Indigenous Peoples and the Forest**

The Indigenous Peoples Rights Act of 1997, refers Indigenous Peoples *“to a group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, become historically differentiated from the majority of Filipinos. ICCs/IPs (indigenous cultural communities/ indigenous peoples) shall likewise include peoples who are regarded as indigenous on account of their descent from the populations which inhabited the country, at the time of conquest or colonization, or at the time of inroads of non-indigenous religions and cultures, or the establishment of present state boundaries, who retain some or all of their own social, economic, cultural and political institutions, but who may have been displaced from their traditional domains or who may have resettled outside their ancestral domains<sup>6</sup>.”*

On the other hand, the Report of the Independent Commission on International Humanitarian Issues described “Indigenous Peoples,” , as *“descendants of original inhabitants of lands that boasted of rich cultures... before they were ravaged by colonizers”*. However, discourses in defining who are indigenous and who are not may not be necessarily important. But it would be significant to take indigenous peoples as a concept in understanding land ownership and communal benefits of natural endowments.

According to the year 2000 population census, Indigenous Peoples estimated to constitute 20% of the total population of the Philippines. The Office of the National Commission on Indigenous Peoples reported that 61% of the entire indigenous peoples population is found in the Southern Philippines. And the Island of Mindanao constitute the southern portion of the Philippine Archipelago. The paper<sup>7</sup> of Dr. Linda Burton of the Research Institute for Mindanao Culture presented to the Commission on Human Rights, showed that *“there were three earlier human populations that settled in the island who were the ancestors of the present-day indigenous peoples in Mindanao”*.

*The first wave of inhabitants (30-25,000) were known to be nomadic hunters and foragers. Around 3,000 years B.P. came in the “late Neolithic culture bearers with slash and burn subsistence pattern. This group of early inhabitants were distributed throughout the island and considered the largest ethno-linguistic group in Mindanao”. Came in last , perhaps during the “late metal age (500 B.C.) with the knowledge of iron smelting and rice agriculture, occupied the southwestern coastal region of the island”. Descendants of these early inhabitants are now currently occupying and traditionally make a living within the last remaining intact forest cover of the Southern Philippines.*

In 1987, the Philippine Government through remote sensing, mapped out the remaining forest cover of the country. The mapping activity revealed that the forest cover have dropped down to 23.7% of the total land area of the country. In a similar study, it is estimated that in the 1900's forest cover constitute 70% of the country's total land area. This findings showed that deforestation is happening at the rate of 100,000 hectares per year. Interestingly, most of the remaining forests cover are found in areas occupied by indigenous peoples since time immemorial. Taking this situation seriously, one could critically think, that the indigenous peoples traditional systems and practices made them survived for several centuries, while, keeping the forest intact possess a wellspring of knowledge for sustainability since then. The situation is true not only in the Philippines, but all over the world. One of the remarkable practices of the indigenous peoples is the shifting cultivation. The remarkable interaction of indigenous peoples and the forests in the Philippines as shifting cultivators is clearly affirmed by a study conducted by Clark University in 1990<sup>8</sup>, which says, *“the basis of sustainable shifting cultivation in its pure form is identical with that of a true sustainable forestry. The biomass is allowed to recover to the level at which it will, after clearance, permit a new harvest as good as the previous one.”*

## **State Policies on Community-based Natural Resource Management**

In looking at community-based approaches in natural resource management, it is important to clarify first the parameters of what constitute a community. The Philippine Government in 1995 adopted community-based forest management as a national strategy for sustainable forestry<sup>9</sup>. This strategy allows communities residing within and adjacent the forest to participate in the direct management of public forests. As an incentive to undertaking forest management and protection, communities are given the opportunity to sustainably utilize the forest resources within the areas awarded to them through the signing of a Community-based Forest Management Agreement<sup>10</sup> (CBFMA) which will last for a period of twenty-five years and renewable for another twenty-five years.

However, in the course of its implementation, several problems cropped up. Many doubts surfaced among key stakeholders regarding its effectivity as a strategy to ensure the sustainable utilization and management of Philippine forests and forestlands and equitable access to benefits from forest resources. One major issue met is the vagueness of its policy regarding community identification. Its implementing rules and regulations defined community as *“a group of people who may or may not share common interests, needs, visions, goals and beliefs, occupying a particular territory which extends from the ecosystem geographical, political/administrative and cultural boundaries and any resources that go with it”*<sup>11</sup>. This policy guideline of the state on the determination of communities who will be granted with the management and protection rights over public forests is merely based on physical accounting. The community’s homogeneity is not being considered, hence, the community’s perspective on sustainable forestry is so diverse and sometimes conflicting that became a burden in the process of managing the forest. Most community organizations granted with resource use permits have heterogeneous membership and include even the influential members of the community. A clear priority on the marginalized members of the community is not established who for centuries have been deprived of opportunities to access forest resources. In this context, management and decision-making powers are manipulated by those who are more influential in the community. Marginalized sectors remain voiceless in all levels of environmental governance and management.

Another state policy that adheres to community-based natural resource management is the Indigenous Peoples Rights Act of 1997 that looks into a rights-based approach to forest management and protection involving indigenous peoples. It recognizes the inherent rights of the indigenous peoples *“to develop, control and use lands and territories traditionally occupied, owned, or used; to manage and conserve natural resources within the territories and uphold the responsibilities for future generations; to benefit and share the profits from allocation and utilization of the natural resources found therein; the right to negotiate the terms and conditions for the exploration of natural resources in the areas for the purpose of ensuring ecological, environmental protection and the conservation measures, pursuant to national and customary laws; the right to an informed and intelligent participation in the formulation and implementation of any project, government or private, that will affect or impact upon the ancestral domains and to receive just and fair compensation for any damages which they may sustain as a result of the project; and the right to effective measures by the government to prevent any interference with, alienation and encroachment upon these rights”*<sup>12</sup>.

Advocates for community-based natural resource management find some windows of opportunity on this state policy for local communities particularly the indigenous peoples to exercise self-governance over their communal resources. At least, among indigenous

peoples, a certain level of homogeneity is present considering their common history, culture and traditions. However, pursuing this strategy for sustainable natural resource management by the indigenous peoples themselves, several challenges have to be considered. The massive colonization by the West, forcibly occupying ancestral lands and territories of indigenous peoples have changed the collective value systems and cultural practices of the indigenous peoples. Their communal concept of ownership have been supplanted by notions of individual private property ownership espoused by Western Colonizers. Traditional institutions have been destroyed and have lost their authority over communal dominion. Yet, in spite of this changing context, there are still indigenous peoples communities who remained true to their traditional precepts of property ownership and still gained significant control over their ancestral territory.

## **Indigenous Framework on Community Resource Management**

### Understanding Indigenous Knowledge

Understanding indigenous peoples framework on utilization, management and protection of their natural resources must be viewed from their cultural practices, belief systems and traditions. Likewise, the process of interfacing modern knowledge within in any indigenous framework on resource management must begin with the understanding of indigenous knowledge that articulate their traditional resource management framework. A *Manual on Recording and Using Indigenous Knowledge* by the International Institute for Rural Reconstruction (IIRR), define indigenous knowledge as

*“the knowledge that people in a given community have developed over time, and continue to develop. It is based on experience, often tested over centuries of use, adapted to local culture and environment and always dynamic and changing.”*

Meanwhile, the Indigenous Peoples Rights Act of 1997, referred indigenous knowledge as

*“systems, institutions, mechanisms, and technologies comprising a unique body of knowledge evolved through time that embody patterns of relationships between and among peoples and between peoples, their lands and resource environment, including such spheres of relationships which may include social, political, cultural, economic, religious spheres, and which are the direct outcome of the indigenous peoples, responses to certain needs consisting of adaptive mechanisms which have allowed indigenous peoples to survive and thrive within their given socio-cultural and biophysical conditions<sup>13</sup>.”*

As you examine clearly the definition of the law, indigenous knowledge then is not only about certain practices and knowledge systems of the indigenous peoples. It also

includes traditional institutions and structures that provide the mechanisms where these practices and knowledge systems are passed on from generations to generations. Hence, it is so significant to view the entire dynamics of their traditional governance systems to have a broader grasp of indigenous knowledge, systems and practices. And in effect, draw out clear framework on utilizing indigenous knowledge systems for effective management of communal resources.

### Indigenous Concept on Resource Use

Indigenous peoples in the Philippines believe that natural resources within their ancestral domain are endowments entrusted to them by their Supreme Deity. People are given the opportunity to enjoy its benefits, however, must assume full responsibility of protecting and nurturing it for future generations as trusted stewards of the Supreme Creator. Everybody in the community assume the stewardship, hence, all natural resources within a particular territory are their communal natural endowments.

The ways of life of the indigenous peoples are expressions of the kind of relationship they have with nature. An important body of knowledge that was passed on to generations to generations was their traditional framework of *working with nature, consulting the spirits and sharing with others*. This knowledge system showed nature as an important natural endowment and not treated as a commodity to be traded and exploited to generate economic and monetary returns. For instance, forests are not only valued according to its economic significance but more importantly according to its cultural and ecological significance. No forests are cleared for cultivation or used for settlements without consulting the spirits believed to be the unseen protectors of the forests. Indigenous peoples regard forests and nature in general not only as sources of food but as source of good health, spirituality and artistry. Undoubtedly, this resource management practices of the indigenous peoples enabled forest cover to remain intact within their ancestral domains.

### **Mechanisms for Interfacing of Indigenous and Modern knowledge**

*“There is no single traditional knowledge system that can be used to preserve biological diversity in all rain forests or on all semiarid rangelands, but no modern technological system can perform this function either. In most instances, indigenous knowledge is often contrasted with ‘scientific,’ ‘western,’ ‘international,’ or ‘modern’ knowledge—the knowledge developed by universities, research institutions and private firms using a formal scientific approach”<sup>14</sup>*



In a conservative viewpoint, indigenous knowledge is always referred to as backward and primitive, unscientific and illogical. However, the argument whether it is inferior to modern knowledge or no value at all is immaterial. What is more valuable is the fact that indigenous knowledge have helped *preserve nature, and above all the humanity*<sup>15</sup>.

Determining the indigenous peoples traditional knowledge and practices is necessary to understand the relationship between them and its biological resources. Thus, strengthening capacities of communities in managing their communal resources should emanate from our substantial understanding on their systems and practices. This will determine how they respond and react to external conditions that could influence the way they would manage and utilize their resources. Moreover, in the global context, United Nations declared that “*respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment*”<sup>16</sup>.

### Context and Challenges in Community Resource Management Planning

In the context of global efforts for biodiversity conservation, the area is likewise identified as a key biodiversity area<sup>17</sup> (KBA) by both Conservation Groups and the Philippine Government because of the high proportion of biodiversity and specie richness it possessed . Consequently, because of its biodiversity richness, various conservation groups including the local government who have administrative jurisdiction in the area and Protected Area and Wildlife Bureau (PAWB) of the Department of Environment and Natural Resources (DENR) pushed for a congressional declaration of the area as a Protected Landscape<sup>18</sup> pursuant to the National Integrated Protected Areas Act. The indigenous peoples recognize the noble intention for protection and conservation of the area but they felt some apprehensions on the aspect of management. According the law, declared National Protected Areas are to be managed by a multi-stakeholder Protected Area Management Board (PAMB) which is headed by the Regional Director of the Department of Environment and Natural Resources. Hence, this particular governing structure posed overwhelming reservation on the part of the indigenous peoples who privately and communally owned the area by virtue of the Indigenous Peoples Rights Act since it might threatened their self-governance rights.

On the other plain, in an effort to achieve high economic growth, the Philippine Government revitalizes and aggressively campaign for more investment in mining. This move by the government prompted several mining companies to apply for mining permits. Consequently, the area that we are working with, in spite of being identified as key biodiversity area have several pending mining claims which entirely cover the

ancestral domain. But pursuant to the Indigenous Peoples Rights Act, government agencies are prohibited from issuing any permits, contracts and agreements<sup>19</sup> without the free prior informed consent<sup>20</sup> (FPIC) of the affected indigenous peoples communities. But in actual operation, this empowering mechanism set by law can also be manipulated by Companies who have the influence and money to bribe Traditional Leaders in obtaining mandated consent.

## Physical Framework Planning: Initial Step to Sustainable and Equitable Resource Utilization and Management

Perhaps, one would wonder, why bother to understand indigenous knowledge when you already have so much stock of modern knowledge that could provide empirical basis in formulating strategic plans for the sustainable management of natural resources. What value can it offer to ensure sustainable utilization and protection of natural resources?

Looking back to the previous discussion, the areas occupied by indigenous peoples since time immemorial and up until the present is also one of the sites of the last remaining forest covers of the country. In this situation, it was valuable and interesting to understand their traditional practices and indigenous knowledge that have direct impact to the integrity of the environment within their ancestral domain in general. This guided in designing the processes that documented and assessed traditional land use practices of the indigenous peoples in the area. The use of indigenous knowledge in this case was employed not because existing Philippine constitution and statute mandated us to do so. But importantly, we saw significant value and affirmative impact of their indigenous knowledge and practices to forest protection and management.

As our initial step in crafting a collective plan for natural resource management, Physical Framework Planning was first undertaken. It enabled community members to collectively decide specific land uses that are culturally appropriate to them. In this context, Land Use refers to the manner of utilization of land including its allocation, development and management in a sustainable manner. Meanwhile, physical framework planning, as a planning tool, is a systematic evaluation of the land and water resources including the socio-economic condition of the community in order to identify alternatives on how to utilize the lands. As a community process, it shall identify appropriate land uses that respond to the needs of the community while ensuring the resources for the future generation.

To benchmark the physical framework planning, the following aspects of indigenous knowledge on resource and land allocation were documented.

Resource Profile	<ul style="list-style-type: none"><li>• Identifies the various natural resources found in the domain – forest, land, wildlife, water, etc.</li><li>• Assessment of the volume of resources identified based on the common knowledge of the community</li></ul>
Resource Use	<ul style="list-style-type: none"><li>• specific traditional uses of each resources</li></ul>

	<p>identified were recorded</p> <ul style="list-style-type: none"> <li>• Its various uses were categorized (medicinal, food, ceremonial rites/ ritual, fuel wood, agricultural, etc.)</li> </ul>
Farming System	<ul style="list-style-type: none"> <li>• System of land allocation for farming</li> <li>• Traditional land preparation and cultivation technologies</li> <li>• Cropping patterns</li> <li>• Traditional crop varieties; seed storage and preservation</li> </ul>
Settlement Pattern	<ul style="list-style-type: none"> <li>• Documentation of its practices in identifying appropriate location for dwellings</li> </ul>

Natural Resource Protection and Management	<ul style="list-style-type: none"> <li>• Listing down of practices and customary laws on protection and management; soil and water conservation; pest and fertility management</li> <li>• Traditional structure for protection and management</li> </ul>
Cultural sites	<ul style="list-style-type: none"> <li>• Mapped out the areas considered as sacred ground and burial grounds</li> <li>• For sacred grounds, document folk stories, myths/ legends that made it sacred to the IPs and its cultural significance</li> </ul>

The documentation of the unique and diverse practices and indigenous knowledge of the indigenous peoples provided us a clear picture in understanding the community's collective framework on how communal resources within their ancestral domain are shared, managed and protected. The approach provided an empowering opportunities for the community to develop a physical framework plan that are carved out from their own traditional practices. In effect, the process gave a higher sense of ownership of the plan on the part of the community.

### Modern and Indigenous Knowledge Interfaced

Modern concepts and ideas must be introduced to local communities who have a different framework and practices of knowledge building not to supplant community's knowledge and cultural practices. Instead enhance their existing practices and systems of doing things. It also aimed at filling in gaps that could strengthen the capacities of the local communities to manage and protect their communal resources amidst the

changing context of their ancestral territories that resulted from colonization. On the other hand, introducing and interfacing of modern concepts and technologies is to facilitate easier understanding of existing indigenous knowledge by non-indigenous peoples particularly to agencies of government, academic institutions and other key players in community development who may have different body of knowledge and systems of viewing resource management. As a policy guidelines of the state, the management and protection plan formulated by the community shall be interfaced with the various government agencies who may have regulatory functions over the delineated ancestral domain.<sup>21</sup>

In this particular case, physical framework planning involves the utilization of mapping technologies to have common tools with that of other government agencies and facilitate the interfacing processes. The indigenous peoples community that we are working with does not have such kind of technology. However, it has traditional practice and notion of spatial allocation and boundary demarcation. Based on their indigenous knowledge, maps may not be an alien technology for them since they do have a concept of space and boundaries. The gap in this situation, is the visual illustration of a particular space and topography with specific boundaries which a technical map can provide. To interface modern concepts in the entire process of physical framework planning, technical knowledge on mapping was introduced to the community. However, the community's traditional concept of spatial allocation and boundary demarcation which uses natural landmarks such as rivers, creeks and top ridges were used in finalizing the allocation for particular land uses. Land use allocations followed natural landmarks as boundary references.

In modern physical framework planning, land areas as important aspect were computed by hectares or acres. In the case of indigenous peoples, land areas are not accounted according to this framework. They always refer area according to its topographic and hydrological features not according to hectares and acres. Their concept of an area and space is not determined by drawing and connecting its perimeter lines into polygon and mathematically compute its size. But according to natural landmarks that would established the scope and extent of ownership and management. Unit of area was widely used when lands are partitioned with corresponding monetary value like any other commodity. But for the indigenous peoples, this sounds strange since lands for them are communal resources which can not be commodified and sold.

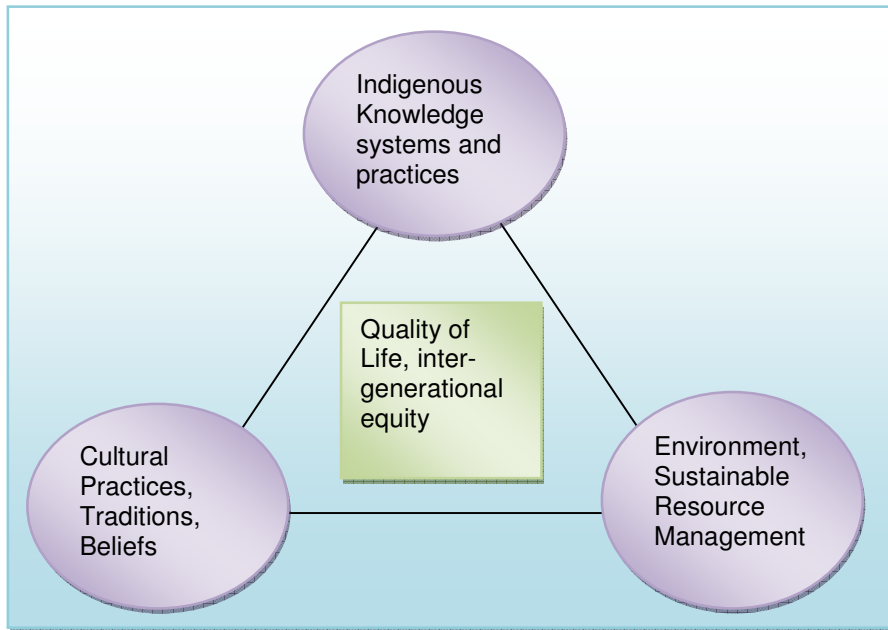
So again, to make government agencies appreciate the physical framework plan formulated by the community, modern technology of geographic information system was introduced with the use of a global positioning system (GPS) equipment. Community members were trained to handle GPS mobile units and took geographic positions of the

natural landmarks of a particular area in order to accurately plot the area into a technical map. Computation of the size the area was done to give a new consciousness to the indigenous peoples regarding size and space as important aspect of natural resource management. And at the same time plot the agreed spatial allocation of lands and resources in a technical map.

The question on how the management zone categories will be decided cropped up. This was answered by the next process: The concern indigenous people presented first their framework and categories of land and resources allocation. Its basis for management zone categorization were clearly understood. Summing up the entire discourse, universally accepted categories were presented and discussed with the community. At the end, labels of certain zone categories followed that of what is commonly used in all government physical framework plan. However, its basis for allocation integrated indigenous and modern concepts. Another aspect being interfaced is on governance mechanisms. Traditional governance structure of the indigenous peoples was clarified and strengthened. This gave them an equal footing to negotiate with state governance structures terms for co-management agreements including recognition of their customary laws on natural resources protection and management.

As we have learned from this experience, modern knowledge can be easily understood by the local communities when it is introduced within the framework of their local or indigenous knowledge. In addition, it enhances existing knowledge of the local communities, in the same way modern knowledge is strengthened when affirmed by local communities and integrated in their local practices.

## Summary and Conclusion



Community-based natural resources management within the context of an indigenous peoples community considers three (3) important aspects as illustrated in the framework shown above. First, the indigenous knowledge, systems and practices (IKSP) that provides the guiding framework in managing and developing the domain. . IKSP that are still relevant and appropriate to the present context of the domain have to be identified and assessed since this would bridge the present generation to its rich cultural heritage. Thus, rebuilding back the concept of communal resource access and management which was ravaged by waves of colonization.

Second is the development of their culture that provides the identity and meaning of their ways of life as a people. It is important that all initiatives within the domain have clear connection and relevance to their culture, customs and cultural beliefs as a distinct race. Culture expresses the ways of life of the community and their relationship with nature and the environment.

Third is the development and protection of the environment which is the main source of the ways of life of the indigenous peoples. Hence, IPs IKSP and cultural practices are shaped from their interaction with nature and the environment. Development and management of the natural resources should be viewed not only as privilege but above

all a very important right of the community as embodied in existing laws and international conventions and declarations.

The interaction of the three main management aspects mentioned above ensures the improvement of the IPs quality of life not only of the present generation but including that of the future.

Central to the sustainable management and utilization of natural resources is the community's local and indigenous knowledge, culture and traditions. Bringing in new knowledge and management frameworks in the community in most cases are not sustainable and bound to fail especially when they alienate the community from their tradition, beliefs and knowledge systems. Believing on the capacities and collective practices of the community are essential preconditions for an effective community-based natural resource management. For after all, it is them who widely knew about their resources. They are the ones directly affected to whatever condition that would happen to their natural environment. Hence, in this framework, modern knowledge is essentially interfaced without prejudice to the richness of indigenous knowledge, systems and practices. A resulting synthesis strengthened the community's capacity to sustainably manage their communal resources.

### Some Challenges and Limitations

Interfacing of modern and indigenous knowledge as an approach to community-based natural resources management might hardly work when traditional institutions and governance structures of the community that safeguard and enhance their culture, traditions and cultural practices are weakened as a blatant effect of colonization. When the community themselves are assimilated to colonial worldview and no longer adhere to their indigenous knowledge, worst, find it irrelevant. Traditional systems may lost its significance in the entire dynamics of their ways of life.

Another constricting factor to this approach is when external environment surrounding indigenous peoples communities are covered with thick walls where modern and western precepts are the only accepted norm. This means that the surrounding institutions and channels of culture are aggressively wanting to supplant and annihilate any traces of indigenous knowledge and practices.

However, amidst this challenging situation, any advocate for the sustainable management of the commons should seriously look back to every single thing that is indigenous. And slowly broken and fragmented pieces of indigenous knowledge and practices are pasted together. In this case, modern precepts, become an empowering



tool to communities who wanted to reclaim their identity and dignity destroyed by colonial rule.

Modern knowledge in all aspects, perhaps successfully turned a single metallic ore into weaponry and production tools but failed to provide access and opportunities to communities who since time immemorial consistently protected the environment as communal resources for the humanity. Natural resource dependent communities all over the world continue to starve. Modern technologies, yes, have given so much economic growth to countries who have access to it but leaving our environment in a very depressing state. The world's natural resources are managed and exploited only by a few corporations for centuries creating imbalance not only to our environment but more so forcing an imbalance of opportunities on access of natural resources.

To avert the continued imbalance, it is but necessary to turn the tide where natural resources are communally managed and utilized by communities living with it. Managing resources by the community themselves necessitates the drawing out of their local or indigenous knowledge and carefully woven into the very complex web of modern precepts to enable them to deeply understand the modern world and find mechanisms to reduce vulnerability. Community-based approaches to natural resource management does not only address the looming social and environmental injustices. But above all, it will lead us to attaining sustainable natural resources management and utilization.

## Notes

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<sup>1</sup> A government agency attached to the Office of the President of the Republic and created by virtue of the Indigenous Peoples Rights Act of 1997 that is mandated to implement its provisions to the letter including the processing and recognition of ancestral domain claims.

<sup>2</sup> Administrative Order No. 01, series of 2004

<sup>3</sup> This is a mechanism set by law wherein indigenous peoples can collectively firm up their vision for development in their domain which shall be crafted in accordance to their customary practice of consensus building. At the same time, the plan shall also articulate their community rules and policies on ancestral domain management and protection.

<sup>4</sup> A government agency tasked to review and provide guidelines mainly on the formulation of Comprehensive Land Use Plan of local governments including urban zoning.

<sup>5</sup> Section 3, Chapter II, Indigenous Peoples Rights Act of 1997 - refer to all areas generally belonging to ICCs/IPs comprising lands, inland waters, coastal areas, and natural resources therein, held under a claim of ownership, occupied or possessed by ICCs/IPs, by themselves or through their ancestors, communally or individually since time immemorial, continuously to the present except when interrupted by

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war, force majeure or displacement by force, deceit, stealth or as a consequence of government projects or any other voluntary dealings entered into by government and private individuals/corporations, and which are necessary to ensure their economic, social and cultural welfare. It shall include ancestral lands, forests, pasture, residential, agricultural, and other lands individually owned whether alienable and disposable or otherwise, hunting grounds, burial grounds, worship areas, bodies of water, mineral and other natural resources, and lands which may no longer be exclusively occupied by ICCs/IPs but from which they traditionally had access to for their subsistence and traditional activities, particularly the home ranges of ICCs/IPs who are still nomadic and/or shifting cultivators

<sup>6</sup> Chapter II, Section 3h, *Indigenous Peoples Rights Act of 1997*; Republic of the Philippines

<sup>7</sup> *The Quest of Indigenous Communities in Mindanao, Philippines: Rights to Ancestral Domain*, presented on May 2003

<sup>8</sup> A study conducted for the United Nations University Project on Critical Environmental Situations and Regions (formerly Project on Critical Environmental Zones in Global Change PROCEED

<sup>9</sup> Implemented through the signing of Executive Order 263 whose implementing rules and regulations are outlined by Administrative Order 96-29 of the Department of Environment and Natural Resources

<sup>10</sup> Tenurial instrument issued by the Department of Environment and Natural Resources to qualified communities with a fixed term of 25 year and can be renewed for another 25 years.

<sup>11</sup> Section 4, Department of Environment and Natural Resources Administrative Order No. 96-29.

<sup>12</sup> Section 7, paragraph b, Chapter III, *Indigenous Peoples Rights Act of 1997*

<sup>13</sup> Section 1, Rule II, *Implementing Rules and Regulations of the Indigenous Peoples Rights Act of 1997*

<sup>14</sup> *Recording and Using Indigenous Knowledge: A Manual* published by International Institute for Rural Reconstruction compiled by Evelyn Mathias

<sup>15</sup> *Proceedings of a Conference sponsored by the World Bank Environment Department and the World Bank Task Force on the International Year of the World's Indigenous People held at The World Bank held last September 27-28 in Washington DC.*

<sup>16</sup> *UN Declaration on the Rights of the Indigenous Peoples*

<sup>17</sup> These are areas comprising of many critical habitats vital for the survival of globally important and range-restricted species and are of international importance for the conservation of biodiversity.

<sup>18</sup> Areas of national significance characterized by the harmonious interaction of man and land while providing opportunities for recreation and tourism within normal lifestyle and economic activity of these areas. (Section 4i, *National Integrated Protected Areas Act of 1992*)

<sup>19</sup> Section 59, *Indigenous Peoples Rights Act*

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<sup>20</sup> *The consensus of all members of the ICCs/IPs to be determined in accordance with their respective customary laws and practices, free from any external manipulation, interference coercion, and obtained after fully disclosing the intent and scope of the activity, in a language and process understandable to the community (Section 3g, Indigenous Peoples Rights Act)*

<sup>21</sup> *Section 8f, Article III, NCIP Administrative Order No. 01, series of 2004.*

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