

# Egongot Tribal Development and an NGO as a Catalyst for Sustainability

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## ABSTRACT

The potential contribution of Indigenous philosophy to global sustainability remains largely unrealized. A significant part of the challenge is the need to actualize the United Nations Declaration on the Rights of Indigenous Peoples within the jurisdictions of specific countries. The Philippines represents countries where Indigeneity is defined more by community of residence and traditional livelihoods, rather than heritage alone. Although Indigenous rights have been recognized in Philippine law, approaches to poverty mitigation and tribal development that support global sustainability may best be advanced through implementation of the catalyst role by Non-Government Organizations as demonstrated for a project with the Egongot Tribe of Aurora Province.

**Key words:** Philippines, biodiversity, Indigenous entrepreneurship, Egongot, Ancestral Domain

In this article we build on an earlier international paper that considered the historic role of Non-Government Organization (NGO) participation in the linkage between Indigenous Peoples (IP) and the environment (Sabbarwal, 2016); and we profile the status of Philippine implementation of the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). As suggested by McCleary (2016) regarding a global approach, the participatory and inclusive design of our project focused on increasing the capacity and involvement of Indigenous Peoples in research for their Ancestral Domain, managing their relationship to the environment. Effectively, our project incorporated a Participatory Action Research Learning (PARL) cycle on ridge to reef coastal resource management (Watts & Pajaro 2014) with consideration for a Social Artistry process (Ayala et al. 2016).

There is global consensus that the life support systems are in jeopardy due to climate change. We suggest that the flexibility potential of non-governmental organizations (NGOs) to serve the catalyst role with Indigenous communities may provide significant hope for the future of Indigenous Peoples, global life-support systems and health, as suggested by international Ecohealth practitioners (Watts et al., 2015). In this article we illustrate the significance of the catalyst role for a specific project within the Philippine Sierra Madre Biodiversity Corridor (SMBC) with the Aurora Province Egongot tribe. The organization Daluhay,

identified as the local responsible partner for an Egongot project, focused on Ancestral Domain management and facilitated Egongot capacity development on the management of funds. These funds were then transferred to the Egongot. Daluhay is based in Aurora Province and has a mandate that considers balance through Ethnoecology, focused on people as part of sustainable ecosystems.

The discussion of Indigenous Peoples' rights is most often associated with their status resulting from the challenges related to colonization, often by Europeans. However, the Philippines represents many other countries, where there is a national awareness that most citizens are descendants from Indigenous Peoples. This cultural heritage has resulted in substantial legal support for Indigenous Peoples under the 1997 Indigenous Peoples Rights Act (RA 8371), often called IPRA Law which preceded the UNDRIP. In the Philippines, recognition of Indigeneity is generally applied to those living traditional livelihoods in a communal setting, often associated with Ancestral Domain titles or claims. Considering the high national and local level of Indigenous Peoples poverty in these traditional communities, the approach to Indigenous entrepreneurship and the funds allotted for the development of biodiversity friendly enterprise in the current project were critical for community engagement. The NGO role included facilitating the valuation of short and long term potentials associated with revenue generation, biodiversity conservation, and the protection/expansion of forest cover in the Ancestral Domains; helping to ensure that culture and traditions are included.

## The Philippines as an Indigenous Homeland

The Philippines is recognized as a biodiversity hotspot, containing 70 to 80% of the world's flora and fauna species, often endemic and mostly threatened. Similarly, the diversity of Indigenous Peoples is large, with over 100 different ethno-linguistic groups spread throughout the archipelago (Jocano 2003), often linked to upland Ancestral Domains. The Indigenous Peoples' territorial claims have historically conserved and sustainably managed their domains using their own traditional systems, thus playing a critical role in the protection of nat-

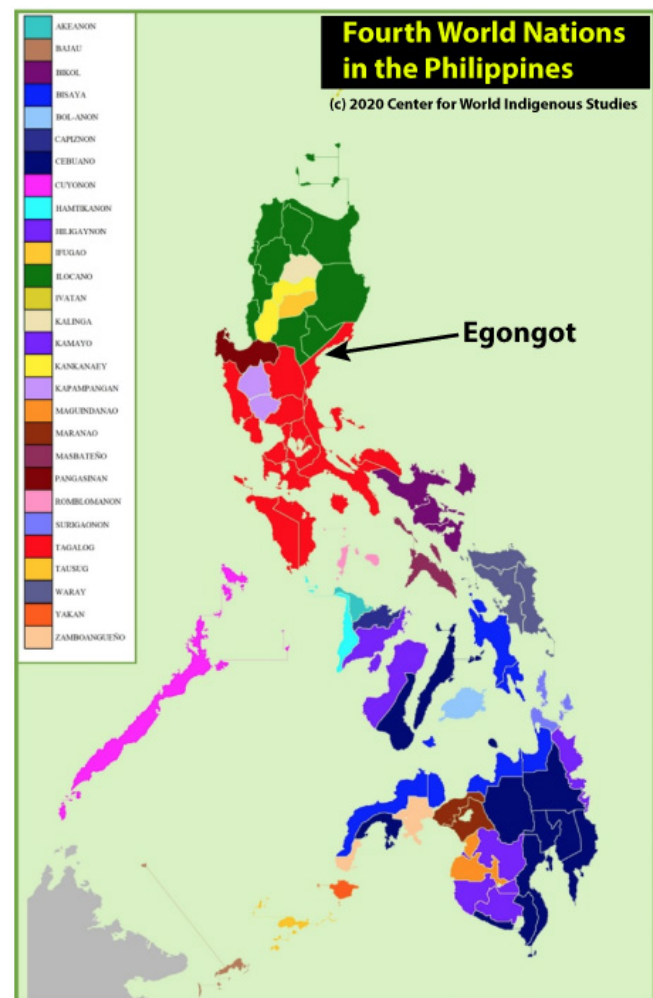


Figure 1: Egongot Tribal Location in the Philippines

ural resources. Although deforestation is a national concern, as much as three-fourths of the remaining forest cover is generally considered to be within Ancestral Domains. Indigenous Peoples are among the most marginalized and disadvantaged Philippine population sector, with the highest occurrence of poverty, illiteracy and unemployment (De Vera, 2007). Given the limited legal recognition of their Ancestral Domains, Indigenous Peoples have been displaced and denied access to the natural resources they have nurtured. Mining, the influx of migrant farmers, poachers, land grabbers, large scale commercial investments and extractive industries have all threatened the various Indigenous Peoples' access to the resources that are entwined with their lives and livelihoods. Their Indigenous knowledge systems and practices have declined in use, often replaced by ecologically unfriendly modern practices causing soil degradation, and loss of both biodiversity as well as cultural heritage.

The 11th Conference of the Parties of the Convention on Biodiversity advocated additional management measures to increase the coverage of protected areas (CBD, 2011). The concept of Indigenous and Community Conservation Areas (ICCAs) emerged with the objective of contributing to biodiversity (Aichi) targets. In Aichi targets 11 and 18, traditional knowledge, innovations and practices of Indigenous and local communities can be fully integrated in the implementation of the Convention. The 1997 passage of Philippine Indigenous Peoples Rights Act<sup>1</sup> provided tenurial security to Indigenous Peoples through the issuance of a Certificate of

Ancestral Domain Titles, The National Commission on Indigenous Peoples (NCIP) is mandated to assist with titling of Ancestral Domain claims. However, the National Commission does not have funds to support individual Ancestral Domains. Further, the government and communities lack skills and capacity to implement the Indigenous Peoples Rights Act. Thus in 2007, a mere 41 domain certificates were awarded to the Indigenous communities which remarkably quadrupled to 162 in 2018 covering about 5 million hectares, which is about one fourth of the total Ancestral Domain claims in the Philippines (Malayang, 2001). However, the process of actualizing Ancestral Domain sustainable development plans remains generally problematic. For example, the vast majority of all Indigenous Peoples in the Philippines do not have bank accounts, project management skills, nor access to funding opportunities. Thus, the role of a local non-governmental organization (NGO) needs to focus on specific settings/situations so as to have a catalytic role for a reflexive response to justice and conservation goals, facilitating quality status for local Indigenous Peoples stakeholders, as suggested by Martin et al. (2016).

In 2015 a project entitled: Strengthening National Systems to Improve Governance and Management of Indigenous Peoples and Local Communities Conserved Areas and Territories was initiated with support from the Global Environment Facility (GEF) through the United Nations Development Program (UNDP). The project known locally as the Philippine ICCA required a level of community development that included a track record for financial management. The Biodiversity Management Bureau of the Philippine Department of Environment and Natural Resources was the Implementing Partner

<sup>1</sup> Indigenous Peoples Rights Act, Republic Act No. 8371, October 29, 1997

for the purpose of strengthening the conservation, protection and management of key biodiversity areas through institutionalizing Indigenous People (IP) engagement on ICCAs. The strategic goals included: to effectively identify, map, recognize and support the governance and management ICCAs, while improving the capacities of IP and other key stakeholders for the effective governance and management of their ICCAs. The priority of Daluhay as the local responsible partner was to focus on community-based capacity development for and by the tribe, complicated by the local nature of clan independence and the relationships between the Egongot Tribal clans of Aurora.

### The Egongot Ancestral Domain

The Egongot provincial Certificate of Ancestral Domain Title (CADT) represents a unified claim consisting of different communities across three provinces (Quirino, Nueva Vizcaya and Aurora) with a total two-dimensional area of 139,691 hectares where 23,124 hectares is in Aurora Province is considered CADT # R02- NAG-0703-0012 (ICCA 2019). The actual habitat and potential area for carbon sequestration is much larger due to the dominant mountain terrain with peaks as high as 2000m above sea level. Two municipalities have 8 Egongot settlements; Maria Aurora (Bayanihan settlement) and, Dipaculao (Dimabono, Ditale, Dibutunan, Diarabasin, Borlongan, Dianed and Dinadiawan) straddle this Egongot CADT in the last remaining expanse of Philippine rainforest. Highway construction and a recent tourism boom has led to many development projects implemented without the free and prior informed consent of the Egongots, undermining their efforts to manage and conserve their Ancestral Domains. The Provincial Federa-

tion of Egongot Tribes in Aurora is the Indigenous community partner in the current project for efforts to reverse these development trends. Since they did not have the experience nor track record of running projects, they selected Daluhay - Daloy ng Buhay, Inc as the local responsible NGO partner.

There are eight municipalities in Aurora (Dinalagan, San Luis, Maria Aurora, Baler, Dipaculao, Dinalungan, Casiguran and Dilasag) situated at the center of the Sierra Madre Biodiversity Corridor (SMBC), where old growth forest cover is the home to over 400 species of wildlife, 153 of which are endemic to the Philippines (van der Ploeg et al. 2003). This includes many threatened dipterocarp<sup>2</sup> forest tree species, other endangered flora, the critically endangered Philippine Eagle, several threatened species of marine turtles, whale sharks and dugongs, endemic mammals (Balet et al., 2011) and rare herpetofauna (Brown et al., 2000). The economic activities of the province include agriculture, fisheries, forestry and tourism. The province is a net exporter of rice to other provinces as well as producing coconut, corn and banana. About 60% of the Aurora province is classified as forestland, with either steep or very steep slopes while 40% is considered as alienable and disposable, most of which are agricultural lands (DENR 2019a). About 76% or 201,000 hectares are claimed as Ancestral Domain by either the Dumagats/Agta or Egongots; while about 10% overlaps with other government-declared protected areas. Stakeholders have reported continuing deforestation, extirpation and declining populations of native wildlife species with many of these

<sup>2</sup> Dipterocarp plants are members of the Dipterocarpaceae family of 695 known species of tropical lowland of evergreen and deciduous trees.

losses involving species such as wild pigs, deer, and the eagles, that are culturally and economically important.

The remarkable biodiversity heritage of the Sierra Madre Biodiversity Corridor (SMBC) is primarily nurtured by disconnected and marginally developed Indigenous groups, somewhat isolated from ecologically limited efforts of local government units. Developing capacity for the Indigenous communities to manage resources requires emphasis on incorporating traditional knowledge, systems and practices with other technologies. Further, ecosystem boundaries extend beyond individual communities and local government units. Thus, there is a need for projects that build Indigenous peoples' capacity and provide linkages between the goals of individual IP clans and inter-community goals. The tribes dominating the central SMBC include the Egongot (also known as Ilongots) and the Dumagat (also known as Agta and Alta). Both Dumagats and Egongots hunt for wildlife, however the former is considered more nomadic and the latter more inclined towards farming. Our organization, Daluhay is active in most of the 20 and more Aurora Dumagat settlements in Aurora as well as the Egongot settlements. Between the two tribes of the Dumagats and Egongots, territories appear to have been defined and governed using customary laws.

The catalyst role of the local NGO includes optimizing the potential for consensus and best practice transfer across the Indigenous groups within the Sierra Madre mountains. However, all actions and development need to be based upon the community-identified goals and objectives. In recent times, cultural transformations have transpired as local

government units were established and customary laws meshed with state laws while the country went through several centuries of colonization. However, the Indigenous communities' dependence on forest and coastal resources remain crucial for their livelihoods and survival. They have also maintained certain areas within their domains as conservation and preservation zones which have deep spiritual and cultural values. Bayanihan in Maria Aurora was originally targeted as the focal site for the Philippine ICCA project in Aurora province. However, consensus could not be reached between the tribal clans in Bayanihan regarding project implementation, perhaps influenced by a centuries-old clan conflict (personal communication, R. Cawad, Egongot Tribal Leader). The clans of the Egongot settlements in Dipaculao, where half of the Aurora-Egongot Certificate of Ancestral Domain Title is placed, unanimously welcomed the project, based upon an agreement that the biodiversity friendly enterprise development funds be divided proportionately amongst the 7 participating settlements. The Daluhay NGO role included adapting set funding allotments for enterprise development in a manner that resulted in 7 parallel and somewhat unique processes rather than the one initially intended when funds were allotted. As part of the Philippine ICCA approach, community residents provided their time as a counterpart for the Ancestral Domain inventory and mapping activities, with the understanding that the Biodiversity-Friendly Enterprise would also be funded.

### **The Egongot Indigenous Community of Dipacalao: Socio-economics**

Aurora's Egongot population is in seven barangays (Brgy.) involving 1,705 Egongot with the greatest number found in Brgy. Diarabasin (Table 1);

representing a mere 14% of the total population of the Municipality of Dipaculao. The influx of migrants occurring over the past century have made the Egongot a minority. Currently, there is a lack of regulation on access to the Ancestral Domains by migrants. The Indigenous knowledge, skills and practices of the Egongot are threatened by modernization and need to be preserved and promoted to the younger generations.

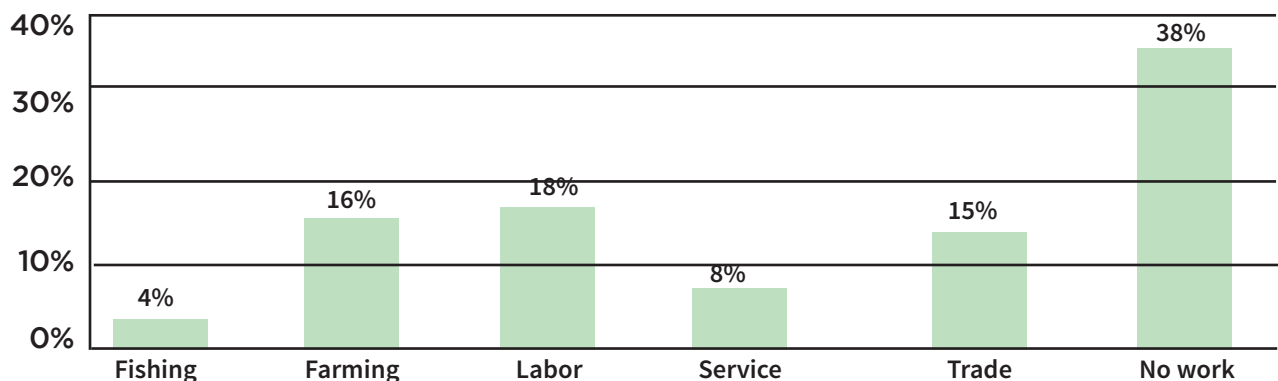
### Statistics Authority 2015 Census and 2018 primary data.

The Egongot have a young population, in which children and youth dominate. A survey of 123 adults indicated that income earners rely mostly on farming, livestock raising and fishing for livelihoods (Figure 2). While women declare themselves as housekeepers, they usually join their husbands in farming and take charge of selling the products whether

BANGARAY	Total population	Number of Egongot individuals	Number of non-Egongot individuals	% of Egongot population in barangay	% of Egongot population in Dipaculao
Ditale	1,398	332	1,066	24%	2.7%
Dimabuno	1,368	170	1,198	12%	1.4%
Dibutunan	860	277	583	32%	2.3%
Diarabasin	1,730	468	1,262	27%	3.8%
Borlongan	2,416	210	2,206	9%	1.7%
Dianed	722	200	522	3.61%	1.6%
Dinadiawan	3,733	48	3,685	1.3%	0.4%

**Table 1: Egongot Population in Dipaculao, Aurora, Philippines.**

*Source: Philippine. Statistics Authority 2015 Census and 2018 primary data.*



**Figure 2: Primary sources of income of Egongots in Dipaculao, Aurora, Philippines**



from farming, fishing, hunting or gathering. There is a lack of stable incomes among the Egongot of Aurora. Augmenting their incomes through access to capital, post-harvest facilities and better marketing opportunities can improve their quality of life.

### **The Philippine Indigenous and Community Conservation Area (ICCA) Program**

International ICCA interests facilitated the Philippine Program development, designed to fit with IPRA Law implementation, national goals for protected area development and biodiversity conservation. This program is a significant step in assisting Indigenous Peoples to move forward and actualize some of the potential benefits of their Ancestral Domains while developing skills that will help them with future programs and projects. The primary focus of the program was to have agencies work together to harmonize the objectives of the National Commission on Indigenous Peoples, the Department of Environment and Natural Resources, the Bureau of Fisheries and Aquatic Resources, and the Housing and Land Use Regulatory Board. The accomplishments discussed below focused on Outputs 2.1. to 2.5 of the Philippine-ICCA project framework (Figure 3). Critically, the policy to harmonize objectives was led by the Philippine ICCA Consortium as a primary caveat to program delivery. The local responsible partner catalyst role included insuring that all activities remained focused on the goal of harmonization within implementation. This required systematic/iterative NGO courtesy calls and relationship development with three levels of local government and national agencies as well as the IP communities.

### **Project Accomplishments**

The Philippine-ICCA project contributed to strengthening the conservation, protection, management and institutionalizing of the 41,480 hectares of Egongot Ancestral Domain as their ICCA. Management zones included sacred grounds, marine sanctuaries, traditional hunting areas, as well as tourism and production areas; all with corresponding prescriptions. Tenurial rights for the 15,900 hectares is secure given that it has been awarded a Certificate of Ancestral Domain Title in July 26, 2003. The consistent engagement of the Dipaculao tribal elders and leaders who centered the Local Planning Team, along with representation from women and youth, were crucial in coming up with the appropriate ICCA management decisions and informed conservation plans, guided by the results of the participatory mapping exercises and resource inventory. The capacity of Local Planning Team members was greatly enhanced by acquiring skills such as financial management, the use of Global Positioning Systems (GPS), and the systematics for the collection and recording of data to determine the health of their forest and marine resources.

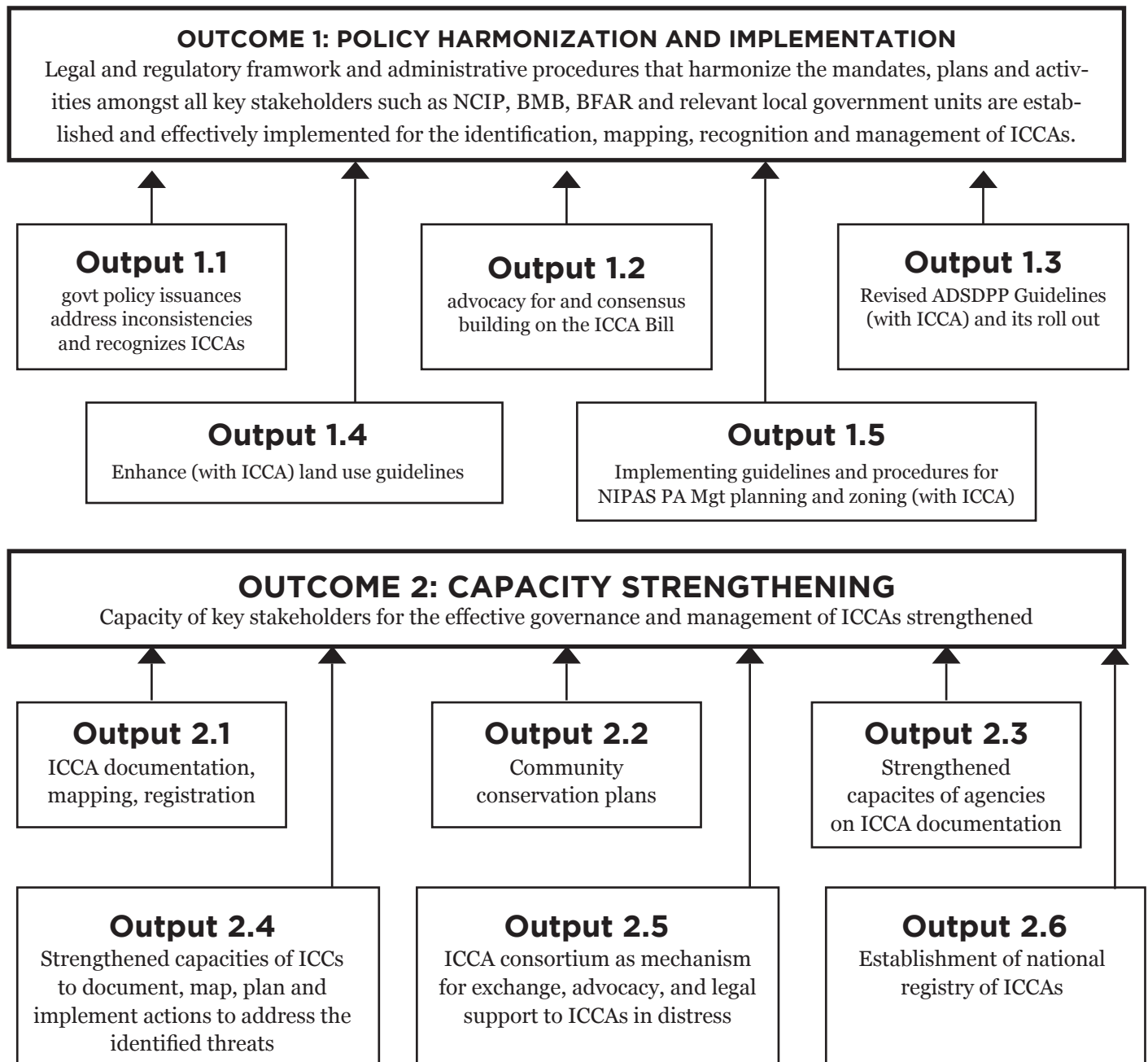
### **Participatory Forest and Marine Resource inventory**

Capacitated by training sessions designed with the local NGO responsible partner, the Local Planning Team gathered and analyzed data collected through a Forest Resource Inventory and Participatory Coastal Resources Assessment (PCRA). It has been suggested that Indigenous identity cannot be understood by a single concept of nature, but instead requires a specific local approach (Ludert, 2010). This goal was met through trainings for

## PHILIPPINE ICCA-PROJECT FRAMEWORK

### OBJECTIVE

Strengthening the conversation, protection and management of key biodiversity sites in the Philippines by institutionalizing ICCAs as a sustainable addition to the national protected area estate.



**Figure 3: Philippine ICCA Consortium (unpublished program outline) - Program Framework**



Egongot skill development focused on empowering the community to monitor their Ancestral Domain natural resources and renew their cultural connection to nature. The inventory determined abundance and distribution of flora and fauna found in various habitat types as well as species richness and diversity concerning species of cultural, ecological and economic significance to the Indigenous community. A carbon stock assessment was considered as one of the important steps to start with sustainable land use planning in relation to global climate change mitigation, carbon trading and marketing. The information generated was also used in formulating their Community Conservation Plan.

The surveys recorded a total of 90 forest species belonging to 36 taxonomic families. Most of the species are endemic to the Philippines, and several are listed as threatened (either critically endangered, endangered, or vulnerable) according to the Department of Environment and Natural Resources (DENR 2019b) and IUCN Red List. Carbon stock were also determined using the data collected from the survey. The aboveground biomass ranged from 78 to 531 Mg C ha<sup>-1</sup> which if averaged would be at 199.81 Mg C ha<sup>-1</sup>. This is a low estimate for similar forest types in the Philippines which is 446 to 1126 81 Mg C ha<sup>-1</sup> (Lasco et al., 2006) except for the forests in Ditale which has the highest recorded carbon stored at 531.83 Mg C ha<sup>-1</sup> where the trees are bigger in diameter, hence the above ground biomass was also higher compared to the other transect stations. The Ditale carbon stock is comparable to the mature secondary forest of Mt. Makiling observed to be at 576 Mg C ha<sup>-1</sup> (Lasco et al., 2004). However, transects were set in accessible areas and the Local

Planning Team members indicated there were much healthier forests with bigger trees further up the slopes towards their sacred areas. Barangay Dimabuno had the highest number of species/individual trees (richness) more than twice that of Borlongan which had the lowest. Dimabuno, Ditale and Dianed had a biodiversity index close to 1, indicating high diversity (Simpson, 1949). Several threats were also observed during the survey. These included timber poaching, slash and burn farming, charcoal making and illegal wildlife hunting.

Participatory Coastal Resource Assessment (PCRA) was conducted for the Dipaculao fishery profile and habitat assessment. Part of the process for the Egongot Ancestral Waters claim in Dipaculao is to re-establish their marine cultural and heritage connection, as well as determining the current status of marine resources in the Ancestral Waters. PCRA was conducted in different habitats, assessing; mangroves, beach forests, seagrasses, intertidal zones, corals and fish. The PCRA was conducted in 6 coastal barangays: 1) Dinadiawan; 2) Dianed; 3) Borlongan; 4) Diarabasin; 5) Dibutunan and; 6) Ditale, and welcomed non-Indigenous local residents. The knowledge and skills required for PCRA were established for each community. The training was designed to work with the volunteer availability of community members, decrease the inconvenience of long travel (especially for elders and mothers with infants), optimizing time and outputs for individual sites. A pre and post training assessment survey was also conducted to monitor the skills learned by the Local Planning Team and others. The majority (66%) of the PCRA survey respondents were male; 54% of the respondents were local but not

recognized members of the Indigenous community. The coastal profile revealed that most participants were dependent on fishing as their primary income with an average monthly income reaching Php 5,000.00 (approximately \$100 U.S.) in Barangay Diarabasin and the lowest recorded income was below Php3,000.00 in Barangay Dianed. In general, fish catch is perceived as declining due to the increase fishers from other municipalities, provinces and Taiwan conducting illegal fishing activities. This pressure on fish stocks is considered locally to have resulted in community fish price increases along with other commodities. Survey respondents identified other causes of depleted fish catch as bad weather caused by climate change, loss of sexually mature fish, and coral reef destruction.

Benthic surveys, fish visual census and seagrass assessment were conducted on the proposed Ancestral Waters. Using a photo transect and Coral Point Count analysis, the status of the corals was determined and results showed that the highest live coral cover (60%) is in Barangay Dibutunan where a Marine Protected Area is located. Dominant fishes recorded were Fusiliers and Surgeon fishes with size range of 1 to 10 centimeters. The size of the fish shows that these are juveniles who are dependent on coral assemblages. Seagrasses were also recorded with two species identified (*Cymodocea rotundata*, *Halodule uninervis*) with percent cover reaching 39%. The core sampling indicated that several invertebrates are present including economically important sea cucumbers and clams.

## Participatory Indigenous Geography - mapping

Participatory mapping was done in each of the seven project sites through the development of 3-Dimensional (3D) maps (Figure 4) and the merger of community-based guidelines to establish GIS-based specific management zones including an area for production (Figure 5). Representatives from each of the seven communities were capacitated to build a model that realistically portrays the image of their land.

Egongot mapping involved boundaries that are not simply defined by straight political lines. Settlement demarcation often followed the curve of the



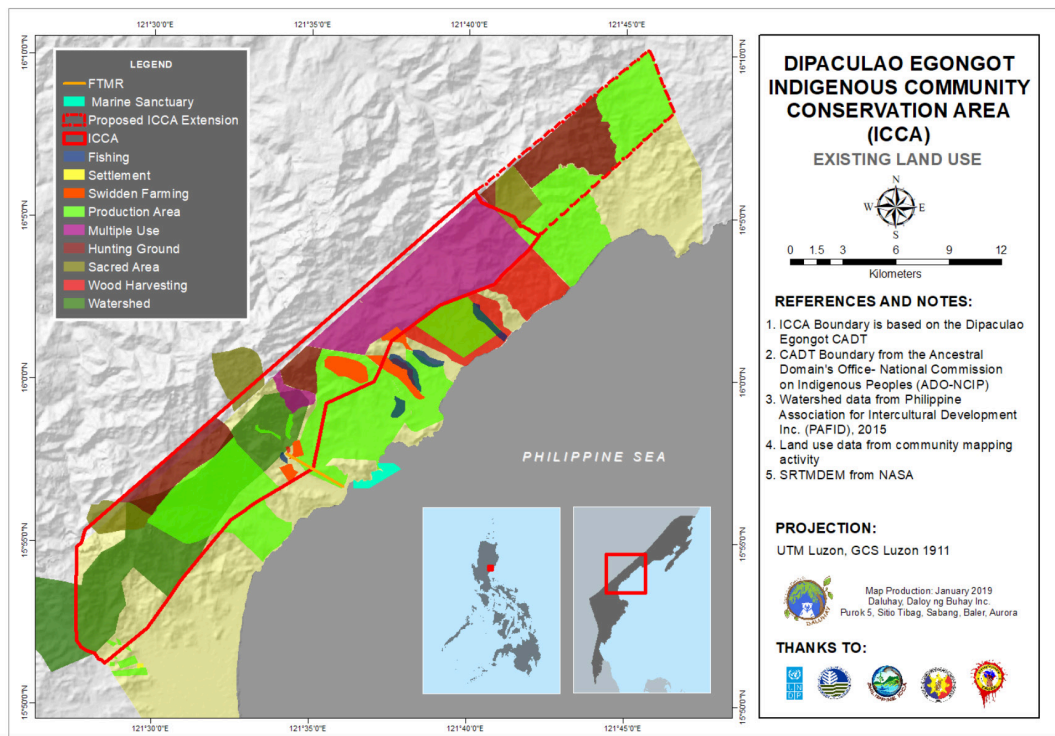
**Figure 4:** Participatory 3-Dimensional Mapping with the Egongot Indigenous Communities of Dipacalao, Aurora, Philippines

river or the location of one mountain peak relative to another. Landmarks are defined by natural features, such as a cave, an enormous tree, or a rock formation. One particularly important mapping component involved delineating Ancestral Domain management and production zones. The Egongot have traditionally designated different areas for protection and production, with the goal of keeping huge sections of their forest intact while still having an area from which they can harvest daily sustenance for their families and community. Through three dimensional mapping and zoning activity, the Local Planning Team was able to identify nine zones: (1) critical habitat; (2) hunting ground; (3) production area; (4) reforestation area; (5) sacred area; (6) tourist spots; (7) watershed; (8) wildlife sanctuary, and; (9) marine sanctuary. The zones identified incorporated their traditional uses for the

land but also included non-traditional zones such as tourist spots as the local residents worked to access the changing economic opportunities of Dipaculao.

## Indigenous Knowledge, Systems, and Practices (IKSP) Documentation

The Indigenous Knowledge, Systems, and Practices (IKSP) characteristics of the Dipaculao Egongot were documented through one-on-one interviews and focus group discussions on specifics including their traditional governance system. Relevant information shared by the Egongot spontaneously during other activities such as during the participatory resource inventories was also recorded. A general orientation on conducting the Indigenous Knowledge, systems and Practices documentation and traditional governance system data gathering was held at the same time during the training



**Figure 5:** Map of the current land use inside and outside the Egongot Ancestral Domain of Dipaculao, Aurora, Philippines.

on Resource Inventory and Community Profiling where a total of 37 (27 males; 10 females) attended, representing all seven settlements. A more detailed orientation for Egongot youth was conducted for one-on-one interviews that capture socio-economic data and stories of farmers and fisherfolk in relation to their Indigenous community and their natural resources. The volunteer youth who were recruited to gather the knowledge system and practices data visited homes to interview the tribal elders, leaders and other members, to gather data and learn more about the Egongot knowledge system and practices particularly with reference to their Ancestral Domain. Focused group discussions with elders covered topics on environmental changes they have recalled from stories of their forefathers and what they have witnessed throughout the years. The active participation of the first author as a community facilitator, knowledgeable regarding local IKSP, validated the stories and researchers consistently sought clarifications from the elders.

The Ancestral Domain Sustainable Development and Protection Plan authored by the Egongot and other published articles were also used to gather secondary information on their knowledge system and traditional government. A previous project engagement with the Egongot, mainly from Maria Aurora, under the United Nations Development Program Small Grants Program provided the opportunity to initiate the documentation of the Egongot's knowledge system and practices. This knowledge platform was expanded through additional narratives from the Dipaculao Egongot key informants. The traditional governance and many other Indigenous knowledge, skills and practices of the Egongot

are intimately linked to their natural environment. Their art forms depicted in music, dances, clothes, ornaments and architecture are inspired by their close interaction with nature around them.

The Egongot knowledge systems and practices and traditional government have the potential to conserve biodiversity over time. However, present threats to conservation and the Indigenous Peoples' livelihoods include: an increasing migrant population, contact with other people, modern technology which is unsustainable, and practices that consistently focus on increasing the quantity of harvest/production. Through time, traditional ways of Indigenous knowledge have been slowly forgotten. Specifically, the approach of engaging the youth for interviews in the current work was designed to mitigate that concern, hopefully initiating ongoing generational transfer of knowledge. Participants that were aged above 40 years were still able to recall, identify, and explain certain practices or traditions that their parents used to teach them. Related to their concern about cultural decline is the degrading state of their Indigenous and Community Conservation Area (ICCA). Although the entirety of the ICCA itself has yet to be entered by illegal environmental offenders (such as illegal loggers/poachers, illegal miners, etc.) there are cases of illegal logging and hunting of wild animals near the fringes of the Certificate of Ancestral Domain Title. Reviving and institutionalizing their traditional conservation practices and engagement of the youth in sustainable management of the ICCA is urgent and necessary if Aurora Province is to retain the unique biodiversity that is so closely intertwined with the cultural heritage. In terms of mitigating climate change, the global sig-



nificance of tropical projects such as the one herein, is enhanced by the fact that the potential for carbon sequestering is several times greater than that of boreal regions (Winjum et al. 1992).

### **Biodiversity-Friendly Enterprises (BDFE)**

For local residents, primarily focused on the challenge of feeding their children, the Biodiversity-Friendly Enterprise (BDFE) component of the project was critical. The catalyst role of the local NGO responsible partner included advocating for biodiversity conservation in terms of feeding children in the future. This involved the participatory approaches reported above, basic bank account procedural training, financial management and planning and critically, in-depth Philippine accounting requirements. The decision to have seven independent enterprises locally developed, required extensive optimization of budgets and travel, particularly considering hazardous weather conditions. There were four criteria applied for each BDFE: 1. Promotion of environmental protection and conservation, 2. Equitable profit-sharing that includes women, 3. Generate income, 4. Part of which must go back into supporting local ICCA management and protection. More time was required than originally planned and there was a need to justify the approach and the timeframe to the Implementing Partner before the BDFEs were allowed to proceed. This challenge also served as an opportunity for the communities to crystallize their growing sense of project and protected area ownership, management and development.

Stewardship for their Ancestral Domain is innate to the Egongot and the Dipaculao Egongot

welcomed the ICCA project as strengthening the Indigenous communities' capacity for resource management and development. The NGO catalyst role in project implementation typically required an operational balance to allow for scheduling adjustments and cultural engagement, best considered through a fusion of art and science (Ayala et al. 2016). Understandably, the need to feed the family has priority over taking part in efforts to protect their natural resources. The Biodiversity Friendly Enterprise component of the project gave the people an opportunity to improve income generation using their innate and traditional knowledge, skills and practices while putting less pressure on natural resources; attracting international ICCA attention as a potential model. The project provided/facilitated; monetary means for equipment purchase, registration with the Securities and Exchange Commission, local government accreditation, opening bank accounts, bookkeeping skills, etc. A workshop was conducted to guide communities in BDFE planning and start-up. The workshop allowed the participants to design a proposal for their BDFE per settlement. Each group completed their proposal with full consideration of their human, nature, physical, financial and social capitals (Table 2). In the true spirit of bayanihan (community support), the Dipaculao chieftains agreed to include the BDFE proposal from the supportive group in the neighboring Egongot community of Bayanihan whose Ancestral Domain lies adjacent to theirs, as requested by the Provincial Chieftain.

The Community Conservation Plan formulated by the Egongots of Dipaculao identified initiatives to implement BDFE activities that address low incomes; limited employment openings and a gener-

Borlongan	Fish trade and ecotourism
Dianed	Fish and Vegetable trade; rice grain
Diarabasin	Coffee production and trade
Dibutunan	Rice grain trade; barter trade
Dimabuno	Rice farming
Dinadiawan	Banana chips production
Ditale	Abaca nursery and planting
Bayanihan	Souvenir items development and production; ecotourism

**TABLE 2:**  
**Biodiversity Friendly Enterprise (BDFE)**  
**Start-ups in 8 Egongot Settlements of**  
**Aurora Province, Philippines.**

al lack of access to economic opportunities that could help them meet their daily needs. The BDFE activities were based upon business plans and targeted by the Egongot of Dipaculao, were nature and culture-based, making profits that promote and enhance not only biodiversity and ecosystem services but also their culture and traditions. Two groups focused in part on ecotourism as a non-extractive source of income development. However, more generally the settlements focused upon specific agriculture or production innovations. These included:

- 1) production of high value and high quality agricultural commodities such as coffee, cacao and abaca;
- 2) improvement and promotion of their handicraft products given their skills and knowledge in weaving, embroidery, carpentry and painting

(hence, handicraft products such as native bags, hats, fans, other ornaments);

3) production, processing and marketing of basic agricultural and fisheries commodities such as rice, fish, banana and root crops. In terms of poverty mitigation, the BDFE activities were able to enhance the business-mindset for livelihoods in the communities. Locally, earning money from livelihoods is blended with a more traditional form of a barter economy. The project helped to crystalize an initial process for local sustainability efforts through enterprise.

The NGO experience with implementation of the BDFE among the Egongot provided a better understanding on how local Indigenous Peoples conduct their enterprise activities, primarily based upon their culture, available resources, knowledge, skills and experiences. Egongot Indigenous entrepreneurship appears to be egalitarian and based on kinship ties, relying on immediately available resources so that jobs are less permanent compared to those in the mainstream societies and therefore may not be in direct response to market needs, as described for other settings (Dana, 2015). While Western models of entrepreneurship takes place in the market, the Egongot conducted much of their enterprise activity internally with no formal transactions. Hence, all the Chieftains and other leaders initially agreed informally that each settlement would partake in individualized yet meager budget allocation instead of venturing into one larger enterprise concept. They also accommodated the neighboring Egongot settlement from Bayanihan. The results highlight how Indigenous entrepreneurship needs to consider the balance between current economics and the



cultural perception of opportunity, particularly as it pertains to BDFE that also serve to move the Indigenous tribal culture and economic status forward in development.

## Conclusions: Local and National Project Innovations

The primary goal reached was the establishment of community-based capacity to move forward with their Indigenous and Community Conservation Area (ICCA) management plans. The communities were engaged in the entire planning process from situational analysis to the defining of vision, mission, goals and the formulation of a strategic plan. The project provided opportunity for Daluhay to facilitate and help define strategies, while the Egongot communities learned implementation strategies to meet local challenges, including finances; moving forward with community goals as tribal development. Daluhay's catalyst role helped the Dipaculao Egongot community to establish their ICCA and further develop as an organization. The project also served as a model for Daluhay's work with other Indigenous communities through the development of sector-specific relationships within communities. Although there were significant overlaps, there were valuable inputs gained by talking with individual sectors, for example; women, fisherfolk, farmers and youth. Daluhay staff had the opportunity to develop sectoral relationship-building skills that can be applied to different Indigenous cultures in other local settings. The project provided the platform for the Egongot community to be capacitated in financial and organizational management that was inclusive of ecological resources. The residents developed an understanding regarding the value of community

capacity. Through the project the community grew to appreciate the significance of being organized and having a legal personality for the advancement of conservation, protection and economic development work. For this community, the project provided a progression in local ownership and valuation of their cultural heritage through a two-way learning process with Daluhay. Further, the ICCA highlighted the knowledge systems and practices of the Egongot and provided a template for how youth can also embrace their previously eroding culture. Legacy and valuation renewal regarding the Ancestral Domain was particularly evident in the youth participants. The Egongots became more aware of the processes in documenting Indigenous Knowledge Skills and Practices and their huge role in establishment and management of their ICCA. Their interest to claim the ancestral waters also provided the opportunity for the Egongot to become aware of the process on securing marine tenure for the Egongot community. The community developed new skills linking culture with science to monitor their Ancestral Domains. Skill development included standardized forest and marine inventories considering traditional knowledge, resource management and habitat protection. Effective implementation and documentation of this monitoring and evaluation system could serve as a national model for globally significant discussions regarding Aichi biodiversity targets 11 (protected area coverage) and 18 (Indigenous knowledge inclusion) as well as contributing to the 2050 vision for the Convention on Biodiversity prioritized targets and actions.

The project's success directly contributed to Philippine United Nations Declaration on the Rights

of Indigenous Peoples (UNDRIP) implementation while connecting participants to an ICCA network and gathering support for future project funding. Given the need to establish more Philippine ICCAs, this approach is now being implemented by Daluhay in other Ancestral lands of the province. The critical learning on a national scale involved the required adaptation to optimize Indigenous entrepreneurship and locally-relevant biodiversity friendly initiatives. Creative linkages that encompass the local socio-economic culture appear increasingly significant where low existing incomes create higher pressure for natural resources that can potentially increase exploitation. Biodiversity financing solutions can serve as a bridge to this connection, mitigating poverty while protecting and conserving biodiversity, if they are based upon sound business plans. International ICCA discussions have recently included consideration of using this Egongot community biodiversity conservation approach as a model – based in part upon ongoing monitoring. The biodiversity finance solutions created strategically included conservation principles while providing livelihoods for communities. Biodiversity Friendly Enterprise can be an important approach to Indigenous entrepreneurship if localized valuation and political consensus can be realized. The initial NGO catalyst role provided a community-based foundation for sustainable development. Future monitoring and documentation of the success and challenges of the local initiatives will serve as an evolving model for the NGO when initiating similar processes for other communities in the globally significant Sierra Madre Biodiversity Corridor. Acknowledgements: The functions and success of the project were a direct result of the participation by the Egongot People of

Dipaculao. We would also like to thank the Aurora office of the National Commission on Indigenous Peoples and the Municipality of Dipaculao for their collaboration. The project is also indebted to the Daluhay Finance and Administration Coordinator, Ms Angela Baltazar for comprehensive facilitation of beneficiary financial management skill development. The foundational work of the Philippine Indigenous and Community Conservation Area (ICCA) Consortium was led by the United Nations Development Program, the Global Environment Facility and the Department of Environment and Natural Resources. Their efforts led to defining and funding this initiative within the Philippine ICCA Program, all of the positive outcomes herein as well as the parallel Philippine projects.

***This Article may be cited as:***

Amatorio, R., Dela Torre, M., Pajaro, M., Raquino, M. E., Watts, P., y Zafra, E. (2020) Egongot Tribal Development and an NGO as a Catalyst for Sustainability. *Fourth World Journal*. Vol. 19, N2. pp. 25-42.

## ABOUT THE AUTHORS



## Ronnie Amatorio

Ronnie Amatorio is an Egongot artist and a local traditional knowledge expert. He shares his passion for passing on Indigenous knowledge systems and practices to the younger generations through his artworks of paintings, artefacts and handicrafts that showcase the rich culture of his Egongot roots. Ronnie's project role focused on community facilitation where he took the lead in the engagement of the communities or settlements that were directly engaged in the current project as well as project coordination.



## Marilyn Dela Torre

Marilyn Dela Torre is a member of the Dumagat Tribe from Dibut, San Luis, Aurora. Her Indigenous roots and heart are close to the forests. Marilyn is determined to help empower marginalized sectors and conserve natural resources. She started off as a volunteer in Daluhay as she pursued her degree and earned a license in Forestry before landing a research position. Marilyn, also a Rainforest Trust Fellow provides technical assistance on tree nurseries, reforestation, and resource inventories.



## Dr. Marivic Pajaro

Dr. Marivic Pajaro's has built her career based upon her early work at the University of the Philippines-Marine Science Institute and the Haribon Foundation before obtaining her doctoral degree at the University of British Columbia. Central to her work is recognizing and facilitating the role of local people in resource management and secondly, actualizing the scaling-up of the ecological approach for sustainability. Leading the project, Marivic serves as the Executive Director of Daluhay.



## Mark Edison Raquino

Mark Edison Raquino role as Daluhay's Research and Development Coordinator applies his background in environmental management and tropical marine ecosystems management. Mark is also part of the team that helps build capacity for local and Indigenous communities for resource management and governance. Mark was formerly one of the ASEAN Youth Biodiversity Leaders and is currently a Fellow of the Rainforest Trust working on Ancestral Domains and biodiversity conservation.



## Dr. Paul Watts

Dr. Paul Watts, President of Daluhay, has a background in Wildlife Biology and sociology. This perspective evolved into an Ethnoecology Program through the University of Manitoba with a focus on involving indigenous leaders as co-instructors. In 2004, he expanded his life-long interest in volunteering to work on international development. Paul met Dr. Pajaro while training at the University of British Columbia and together they established Daluhay.



## Erica Zafra

Erica Zafra's passion for stray animals evolved into a concern for other living beings as she learned about the global illegal wildlife trade. Erica majored in Geography at the University of the Philippines learning about the interconnections between people, wildlife, and the environment, and where she developed more as an environmental advocate through GIS and Remote Sensing. Erica currently serves as a Daluhay project manager in Northern Aurora.