



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE
Mamburao, Occidental Mindoro

AUG 08 2022

MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA Region
1515 L&S Bldg, Roxas, Blvd.,
Ermita, Manila

THRU : The ARD for Technical Services

FROM : The OIC, PENR Officer

SUBJECT : **SUBMISSION OF PROGRESS REPORT UNDER ASEAN HERITAGE PARK (AHP) INITIATIVES FOR SECOND QUARTER 2022 ACCOMPLISHMENT REPORT**



Forwarded is the memorandum dated July 25, 2022 of PASu Mounts Iglit-Baco Natural Park (MIBNP) regarding Submission of Progress Report under ASEAN Heritage Park (AHP) initiatives for Second Quarter 2022.

Included in the report are the results and progress of activities conducted by MIBNP-PAMO anchored to the focused priority outputs under involvement of Indigenous and Local Communities within Protected Area as follows:

1. Output 1: A sound understanding of the structure, culture and needs of Tau-Buid communities in and around the Tamaraw habitat and of the options and needs for sustainable land use and landscape rehabilitation;
 - *Permaculture system building monitoring*
 - *Interviews with Taubuid residing near Station 2*
 - *Interview with PT Fausto*
 - *Two training activities conducted such as "Sustainable Land Use and Livelihood System from the Perspective of Social Geography" and "Seed Saving."*
2. Output 2: At Taubuid communities are engaged in implementing agreed plans of activities to improve sustainability of resources and land use and rehabilitate damaged landscapes in and around the Tamaraw habitat.
 - *Informal discussions with Taubuid yield additional information that were incorporated in the documentation of traditional practices*
 - *Trust building phase continues: Taubuid in Anahawin was provided of 18 sacks of rice as loans and as part of dongdong (rice store house) initiative, supported by DAR*
 - *Fire break and landing conti*
3. Output 3: The Tamaraw population is well protected, stable or increasing and occupying an increased protected zone of at least 2,500 ha; and
 - *Two (2) on-site activities were carried out during the quarter in relation to refining the census techniques for tamaraw.*

- *Fire break at landing area is continuously maintained as model for fire management.*
3. Output 3: The Tamaraw population is well protected, stable or increasing and occupying an increased protected zone of at least 2,500 ha; and
- *Two (2) on-site activities were carried out during the quarter in relation to refining the census techniques for Tamaraw:*
 - *Double observer point count from April 9 to 18, 2022;2 and*
 - *Double observer Distance Sampling of Tamaraw dungs in MIBNP using 27 transect lines from April 25 to May 4, 2022*
4. Output 4: A claim of the right of Taubuid is prepared and submitted by the end of the project.
- *On June 6, 2022, a meeting was conducted and attended by the Superintendent of Sablayan Prison and Penal Farm (SPPF) together with the Team from NCIP and Taubuid Tribal leaders. During the meeting, it was agreed that the NCIP would send a letter to the Regional Office of Bureau of Corrections informing them that the 2010 survey for the ancestral domain will be continued this year.*
 - *Likewise, on June 15, 2022 another meeting was conducted and attended by the NCIP Sablayan team and the D' Aboville Foundation (DAF) to discuss concern about possible outsourcing of geodetic engineer who will facilitate survey of ancestral domain.*

For information and record.


ERNESTO E. TAÑADA

TSD-CDS3/4/20222

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MTS. IGLIT-BACO NATURAL PARK - PROTECTED AREA
MANAGEMENT OFFICE (MIBNP-PAMO)

PROGRESS REPORT
ON

ASEAN HERITAGE PARK (AHP) INITIATIVES

2ND QUARTER OF C.Y 2022



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Provincial Environment and Natural Resources Office
MOUNTS IGLIT-BACO NATURAL PARK
PROTECTED AREA MANAGEMENT OFFICE

July 25, 2022

MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA Region
1515 L & S Bldg., Roxas Blvd., Ermita, Manila

THRU : The OIC, PENRO Officer
Mamburao, Occidental Mindoro

FROM : The Protected Area Superintendent
Mts. Iglit-Baco Natural Park

SUBJECT : **SUBMISSION OF PROGRESS REPORT UNDER ASEAN HERITAGE PARK (AHP) INITIATIVES FOR SECOND QUARTER 2022 ACCOMPLISHMENT REPORT**

Respectfully submitted is the 2022 Second Quarter Report of Mts. Iglit – Baco Natural Park – Protected Area Management Office (MIBNP-PAMO) on activities under the ASEAN Heritage Park (AHP) Initiatives.

Relative hereto, included in the report are the results and progress of activities conducted by MIBNP-PAMO anchored to the focused priority outputs under Involvement of Indigenous and Local Communities within Protected Areas as follows:

- Output 1: A sound understanding of the structure, culture and needs of Tau-Buid communities in and around the Tamaraw habitat and of the options and needs for sustainable land use and landscape rehabilitation;
- Output 2: At least 2 Taubuid communities are engaged in implementing agreed plans of activities to improve sustainability of resource and land use and rehabilitate damaged landscapes in and around Tamaraw habitat;
- Output 3: The Tamaraw population is well protected, stable or increasing and occupying an increased protected zone of at least 2,500ha; and
- Output 4: A claim for the rights of Taubuid is prepared and submitted by the end of the project.

For your information and record.

Prepared by:

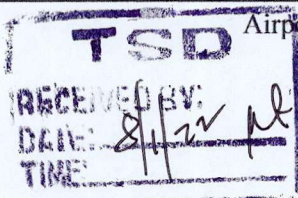
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Approved by:

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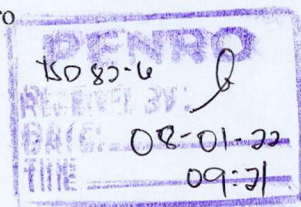


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The Mts. Iglit - Baco Natural Park (MIBNP) has been designated as an ASEAN Heritage Park (AHP) under the ASEAN Declaration on Heritage Parks of 18 December 2003, signed by the ASEAN Ministers of Environment. The Mts. Iglit-Baco Natural Park, through the Protected Area Management Office (PAMO) continuously support the AHP initiatives by promoting the Involvement of Indigenous and Local Communities within Protected Areas and as one of the key aspects for the accomplishment of targets of the Mts. Iglit-Baco Natural Park (MIBNP).

The following are the expected outputs, based on the approved Physical and Financial Plan of MIBNP, CY 2022 under the Involvement of Indigenous and Local Communities:

- **Output 1:** A sound understanding of the structure, culture and needs of Tau-Buid communities in and around the Tamaraw habitat and of the options and needs for sustainable land use and landscape rehabilitation;
- **Output 2:** At least 2 Taubuid communities (approximately 200 men, women and children) are engaged in implementing agreed plans of activities to improve sustainability of resource and land use and rehabilitate damaged landscapes in and around Tamaraw habitat;
- **Output 3:** The Tamaraw population is well protected, stable or increasing and occupying an increased protected zone of at least 2,500ha; and
- **Output 4:** A claim for the rights of Taubuid is prepared and submitted by the end of the project.

The Progress of activities under Involvement of Indigenous and Local Communities of the AHP Initiatives for MIBNP for the 2nd Quarter of CY 2022 is presented in the following statements.

1 Expected Output 1: A sound understanding of the structure, culture and needs of Taubuid communities in and around the Tamaraw habitat and of the options and needs for sustainable land use and landscape rehabilitation

1.1 2022 Performance Indicators:

- Study on Taubuid agriculture, resource use, and food security completed
- Detailed ethnographic and socio-economic study to understand how new practices in agriculture and land use can be assimilated completed
- At least two study visits and training events completed
- Demonstration area established

1.2 2022 Planned Activities:

- Conduct a study of Taubuid agriculture and resource use and food security
- Conduct socio economic and ethnographic studies of one Taubuid village in order to understand how new practices in agriculture and land use can best be assimilated.

- Conduct exchanges, training events and study visits from the Taubuid to other indigenous initiatives in the Philippines
- Establish an area inside MIBNP for trials and demonstrations of agriculture and agroforestry and ecosystem restoration techniques.

1.3 Progress

1. Dr. Julia Tichit, a French social geographer consultant, visited Mindoro from 27 April to May 5. She trekked to and stayed at Station 2 and was able to observe the landscape and interview several Taubuid who resides near the Station 2 as well as Punong Tribu Fausto Novelo at Station 1. During her visit, she also facilitated a three-day workshop entitled “*Sustainable Land Use and Livelihood System from the Perspective of Social Geography*.” Based on her visit and reports on interviews by PAMO and DAF staffs, she prepared a second draft of the “state of knowledge” on Taubuid Land Use and Natural Resource Use Practices. The “state of knowledge” document will be updated regularly as more interviews are conducted. The Taubuid in the uplands do not still readily agree to be interviewed and it is still not possible to visit their furuan (settlements) and gamasons (swiddens). Interviews were conducted whenever there was a chance during visits at Station 2, and to the rangers and other informants who are willing to be interviewed were approached. The following new information were collected during these interviews:

- **Wider no-hunting area before March 2016.** Before March 2016 (when the “no hunting” zone was agreed), the park management (joint Protected Area Office and Tamaraw Conservation Program) considered the entire park a no-hunting area because of its designation as a protected area. However, ranger patrolling was only effectively done from Lawitan Creek towards the eastern part of the park. The Taubuid requested that the boundary of the no-hunting zone be adjusted towards where it is now. This new boundary was agreed in March 2016.
- **Safong** (circular burning used in hunting) was already done in the areas of Inobon, Bayokbok, and Loibfu [inside the current no-hunting zone] before March 2016, but after March 2016, safong was only done in the area close to the territory of Buto Daol on one side of the Iglit River. Some rangers, do not know the term safong but know it as “circular burning.” The origin of this practice is still not clear and needs further research.
- **Inclusion of Buto Dao;’s safungan in the no-hunting area.** Why the safungan of Buto Daol was included inside the no-hunting zone is also not clear. Some Taubuid say there was a confusion in the understanding of the boundary [Iglit River, which seems to be very clear physically]; some rangers say that Buto Daol did not honor the March 2016 agreement.

- **Furuan in Nagbobong.** There used to be a furuan in Nagbobong. The residents of this furuan transferred sometime in the 1990s to areas nearer Tamisan because of an outbreak of measles. After thirty years, no one has attempted to return.
- **System of acquiring land.** Land within the ancestral domain is not sold to siganons, even in category 1 communities. Land can be acquired through inheritance and through exchange usually with a female pig. In category 1 communities, land can be acquired by buying. A hectare would cost PhP 5,000. Borrowing of land is a widespread practice. Young Taubuid who do not have inheritance usually borrow land from friends who have land. Two names emerge as big “landowners” – Punong Tribu Fausto Novelozo and a certain Fufuama Usilo.
- **Burial sites.** There are no fixed areas for faksandigan (burial sites) in category 2 and 3, but there is in category 1 (in a talundan [old forest]). A faksandigan becomes a sacred area. The Taubuid seems to have a different conception of what sacred means; this needs further research. Understanding this could be important in harmonizing indigenous and government conservation measures.

2. After pre-testing the research questionnaires contained in the overall research strategy, these were updated. These are being used to collect information on at least two furuans near Station 2. There are always MIBNP-PAMO and DAF staff at Station 2, even on weekends. But the key visits with the presence of a senior staff were conducted during the following dates as shown in **Table 1**.

Table 1. Dates of key visits and activities conducted

Dates	Activities conducted
21 to 23 April	<ul style="list-style-type: none"> • Permaculture system building monitoring • Interviews with Tabouid residing near Station 2
28 April to 2 May	<ul style="list-style-type: none"> • Permaculture system building monitoring • Visit of Dr. Julia Tichit, interviews with Taobuid residing near Station 2 • Interview with PT Fausto
27 May to 1 June	<ul style="list-style-type: none"> • Permaculture system building monitoring

Some of the key information ² collected include:

- **Boundaries between communities.** The boundary between furuans seems to be porous because of inter-marriages between furuans that results in one family having land in both community territory; but there is a recognized boundary that was established by the mangaguyang [elders] and passed on through generations. A senior DAF Taubuid staff drew the boundaries for two boundaries (see Map 1); he said that he does not know the boundaries of the other furuans.



Map 1. Indicative boundaries of Tagurades and Bayanan

- **Location of swidden.** Gamasons are far from furuans and from each other. Families usually maintain three gamason plots. One reason given for the distance between gamasons and furuans is that livestock they keep might destroy crops so they keep the farms far from livestock. The cropping cycle for rice and the indicators for the start and ends of the different phases in the cycle is now clear. This seems to mean that fallow period in category 2 swiddens is getting shorter.
- **Boundaries of the no-hunting area.** The two communities generally honor the boundaries of the no-hunting zone except for Bayanan whose balatiks (spear traps) are installed inside the northwest part of the no-hunting zone.
- **Population density and sustainability threshold.** Using the indicative boundaries of the two furuans, it appears that the population densities in

Tagurades and Bayanan are beyond the 5 to 10 persons per square kilometer of forest to maintain a minimum standard their living. The population densities, however, are still below the 40 persons per square kilometer sustainability threshold indicated in the literature³ (Table 1). Bayanan is precariously on the upper limit of the threshold.

Table 2. Population density in Tagurades and Bayanan

Furuan	Population	Area (ha)	Density (p/km ²)
Tagurades	75	416	18
Bayanan	185	467	40

3. Two (2) trainings activities were conducted:

- **“Sustainable Land Use and Livelihood System from the Perspective of Social Geography”.** On May 3 to 5, 2022, in San Jose, Occidental Mindoro. In this training, the facilitator explored the use of social-geography as a tool to document, understand and enhance the land-use system of the Taubuid communities residing in the Protected Area. The workshop is a continuation of the previous modules in para-anthropology and complement the permaculture approach initiated inside the park, aiming at enhancing the skills and knowledge of DAF team, PAMO staff and Taubuid community members to conduct such socio-ecological approach. The outputs of this workshop will feed into the formulation of a Community Conservation Plan (CCP) as spelled out in the Implementing Rules and Regulations of the Expanded National Integrated Protected Areas System Act of 2018 (ENIPAS Act of 2018). Eight (8) persons participated in the workshop (4 males and 4 females); three were Taubuid and one was a Hanunuo Mangyan. The workshop was preceded by a visit to MIBNP that included discussions with Taubuid elders. The resource person for the workshop was Julia Tichit Navarro, a social geographer who graduated from the University of Montpellier in France and who conducted her PhD in Geography and Land Planning, studying urban agriculture of poor communities of Metro Manila.
- **“Training on Seed Saving.”**, from May 28 to June 1, 2022, in Station 2, Mounts Iglit-Baco Natural Park. This was a practical training on seed saving and food crops aimed at enhancing the knowledge and skills of the DAF team and staff of MIBNP many of whom are Taubuid. The training included discussions and hands-on demonstration on the selection, cleaning, storage, germination, and propagation of seeds. The Taubuid way of storing seeds on top of their dafugs [hearth] and dongdong [rice store house] was included in the workshop. Taubuid residing near Station 2 were also invited and some of them observed some practical sessions during the journey. Our local permaculture team will now build a seed saving storage facility, including an open display system at station 2 to encourage rangers and Taubuid residents to bring, exchange, produce and identify seeds, so as to build an interactive seedbank of all local varieties of plants that grows inside the

protected area. Eleven (11) persons participated in the training (7 males and 4 females); five (5) were Taubuid and one was a Hanunuo Mangyan. The resource person for the training was Harry Paulino from the Global Seed Savers of the Philippines and Bert Peeters of the Philippine Permaculture Association of the Philippines.

4. The Philippine Permaculture Association consultants (led by Bert Peeters) visited Station 2 from 28 May to 1 June, 2022. The PAMO team continued to work closely with DAF personnel in establishing the permaculture-based system in Station 2. Below are the key achievements related to the permaculture-based food production and habitat restoration initiative:

- **Kitchen garden.** The kitchen garden has started to produce vegetables. This produce has already been consumed by the DAF staff and the rangers. The vegetables that have been harvested included the following: okra, pechay, alugbati, kamote tops, kangkong, pipino, patola, ampalaya, eggplant, blue ternate, and stringbeans. Crops that were already growing in the area before the initiative started has already become regular food sources. These are bananas, papaya, langka, labong, pungapong, katuk, cassava, nami, pineapple, star apple, guyabano, avocado, kalamansi, and balimbing. We have tried making jam out of the balimbing and it was a success.



Figure 1. Some vegetable produce from the kitchen garden



Figure 2. Hut and raised seedbed built in Station 2

- **Compost bins.** After half a year, the compost bins can now provide a continuous small supply of organic fertilizer that can be used in the garden.
- **Basic structures made of local materials.** The following structures were completed through the joint efforts of PAMO rangers and DAF staff: a

raised seedbed covered with mesh to protect seedlings from insects; a hut at the back of the ranger bunkhouse for preparing food; a toolshed at the bottom of the DAF hut; a separate kitchen and sink at the bottom of the DAF hut to declog the ranger's and visitor's kitchen. The materials for the laundry area and the chicken coop has been procured and collected; it is expected that these will be completed in the next quarter.

- **Waste segregation system.** The waste segregation system generally works but people including rangers and DAF staff still need to be constantly reminded to properly segregate wastes. Plastics are being transported back to the waste bins in Station 1 (where these are then collected by the municipal waste management team) but this task is still being carried out by DAF staff. It needs to be included in the routine work of the rangers.

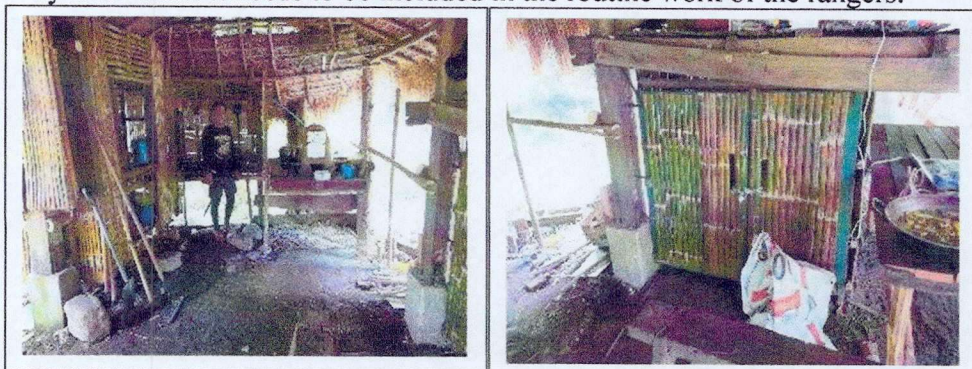


Figure 3. Toolshed and kitchen at the bottom of DAF Kubo

- **Nurseries.** Apart from the seedbed devoted to germinating vegetable seeds, a nursery mainly for trees was also established. This nursery contains plants grown from seeds and as collected wildlings. The PAMO rangers and DAF staff collect wildlings and seeds along the trail from Station 1 to Station 2 whenever they climb to Station 2. Many of the seeds and wildlings were collected within the park. Many of these have been planted in the Landing area. We continue to maintain a list of plants that we have initially assessed as non-invasive that were taken from outside the park and monitor these.



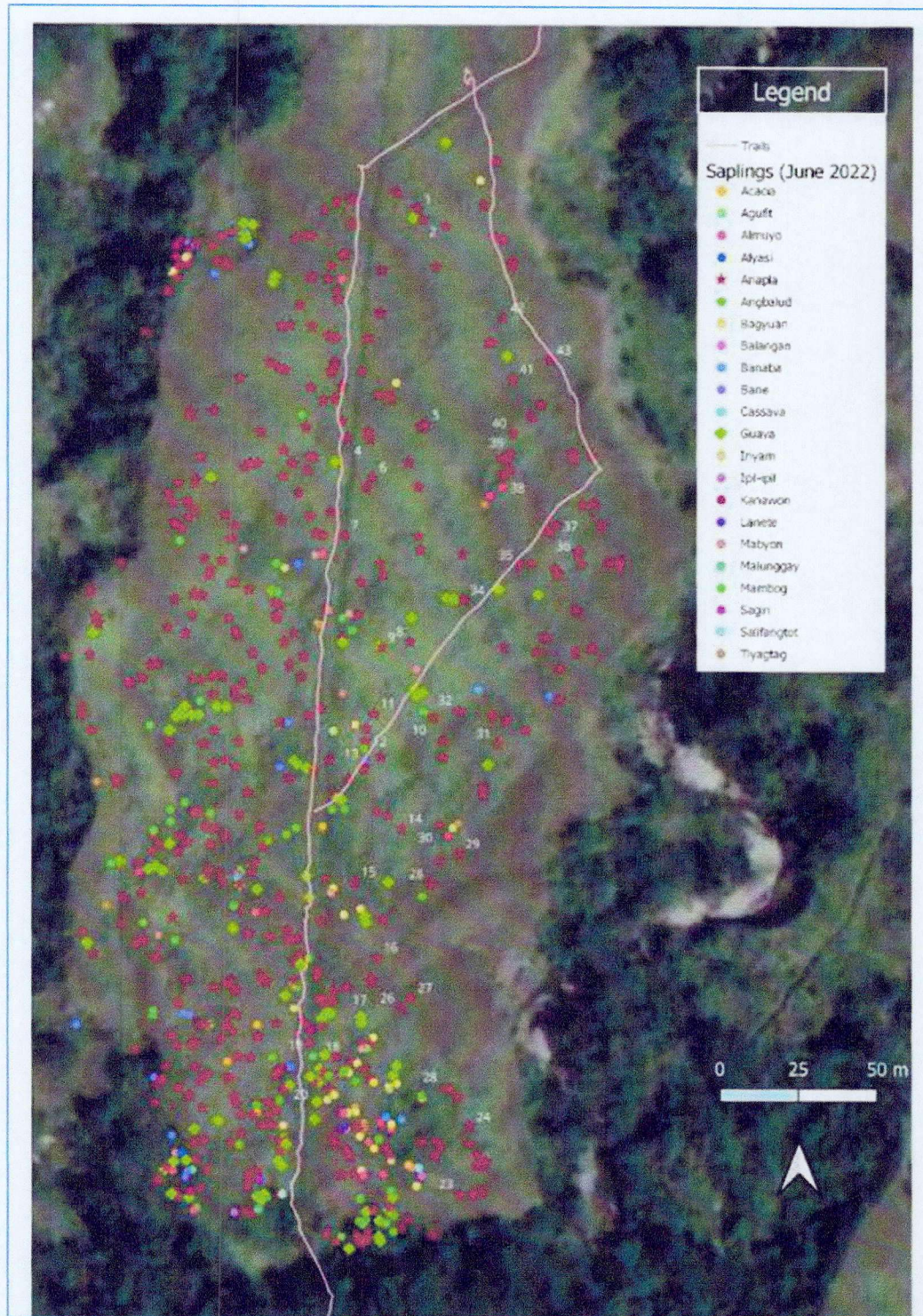
Figure 4. Nursery mainly for trees, PAMo and DAF working together

- **Food forest.** The food forest being established is located in the southern part of Landing near the water tank. This approximately one-hectare area was divided into three strips. One hundred thirty-two (132) fruit trees belonging to twelve (12) species have so far been planted in this area (**Table 3**). Apart from these, the following were also planted: banana, cassava, camote, and sabawil. More fruit trees and other crops are planned to be planted in this area.

Table 3. Species of plants planted in the food forest and numbers

Species local name	Scientific name	Strip 1	Strip 2	Strip 3	Totals
Kasoy	<i>Anacardium occidentale</i>	11	14	12	37
Papaya	<i>Carica papaya</i>	9	10	10	29
Kalamansi	<i>Citrus x microcarpa</i>	10		8	18
Malunggay	<i>Moringa oleifera</i>	4	4	4	12
Kamachile	<i>Pithecellobium dulce</i>	4	2	5	11
Kalumpit	<i>Terminalia microcarpa</i>	1	4	2	7
Guayabano	<i>Annona muricata</i>	2	2	2	6
Kaimito	<i>Chrysophyllum cainito</i>	3		2	5
Balimbing	<i>Averrhoa carambola</i>	1	1	1	3
Pomelo	<i>Citrus maxima</i>		2		2
Avocado	<i>Persea americana</i>		1		1
Mangga	<i>Mangifera indica</i>	1			1
Totals		46	40	46	132

- **Habitat restoration area.** Another full enumeration counts of all the saplings located in the entire five-hectare expanse of the Landing area was conducted. This time there were 765 trees belonging to 21 species were recorded, an 64% increase from the previous (January 2022) count of 466 saplings. Anapla (*Albizia procera*) remains to be the predominant species colonizing the area (**Map 2** and **Table 4**).



Map 2. Saplings located and recorded in the entire Landing area

Table 4. Species of saplings recorded naturally-growing in Landing

name	Tagalog name	Scientific name	Number	%
Anapla	Akleng parang	<i>Albizia procera</i>	486	63.53%
Bayabas	Bayabas	<i>Psidium guajava</i>	98	12.81%
Angbalud			32	4.18%
Bagyuan			27	3.53%
Kalamayo	Mambog	<i>Mitragyna speciosa</i>	24	3.14%
Bane			20	2.61%
Almuyo	Tibig	<i>Ficus nota</i>	17	2.22%
Tiyagtag	Hawili	<i>Ficus septica</i>	14	1.83%
Mabyon			11	1.44%
Kasya	Akasya	<i>Samanea saman</i>	9	
Inyam	Inyam	<i>Antidesma bunius</i>	7	
Kanawon			5	
Banaba	Banaba	<i>Lagerstroemia speciosa</i>	4	
Malunggay	Malunggay	<i>Moringa oleifera</i>	2	
Lanete	Lanete	<i>Wrightia pubescens</i>	3	
Agufit			1	
Saging	Saging	<i>Musa paradisiaca</i>	1	
Alyasi			1	
Salifangtot			1	
Balangan	Dalairo	<i>Anaxagorea luzonensis</i>	1	
Ipil-ipil	Ipil-ipil	<i>Leucaena leucocephala</i>	1	
Totals	Totals		765	

The habitat restoration area in Landing was divided into two sections: an area with no intervention in the west and an area with intervention in the east. These sections are separated by the trail lying south to north along the expanse of Landing. The interventions in the eastern side consisted of creating mounds filled with biomass (decaying logs, fallen leaves, and cut grasses) and the planting to companion trees alongside the anapla saplings located.

Transects were established in the no-intervention section for monitoring purposes to explore the natural succession dynamics in different types of soil. The grasses growing on the area will be used as a proxy indicator for the type of soil. There are four types of areas based on the species of grasses growing on these: 1] dominated by kangaroo grass (*Themeda triandra*) or samong samong in Tagalog, as the most abundant; 2] a mix of Christmas grass (*Themeda arguens*) agyon in Fanaubuid and fern species; 3] dominated by wild sugarcane (*Saccharum spontaneum*) or talahib in Tagalog; and 4] areas with a mix of kangaroo grass and cogon grass (*Imperata cylindrica*).

The monitoring design consists of 12 transects with east-west orientation, packed in four groups of three, and each pack separated by 15 meters. The distance between groups of transects is 30 meters. In each transect, two-meter buffers (one meter on each side) will be monitored (**Map 3**). The design ensured

proper representation of the entire study area and of the different types of areas based on the grasses growing on these. The area will be monitored every six

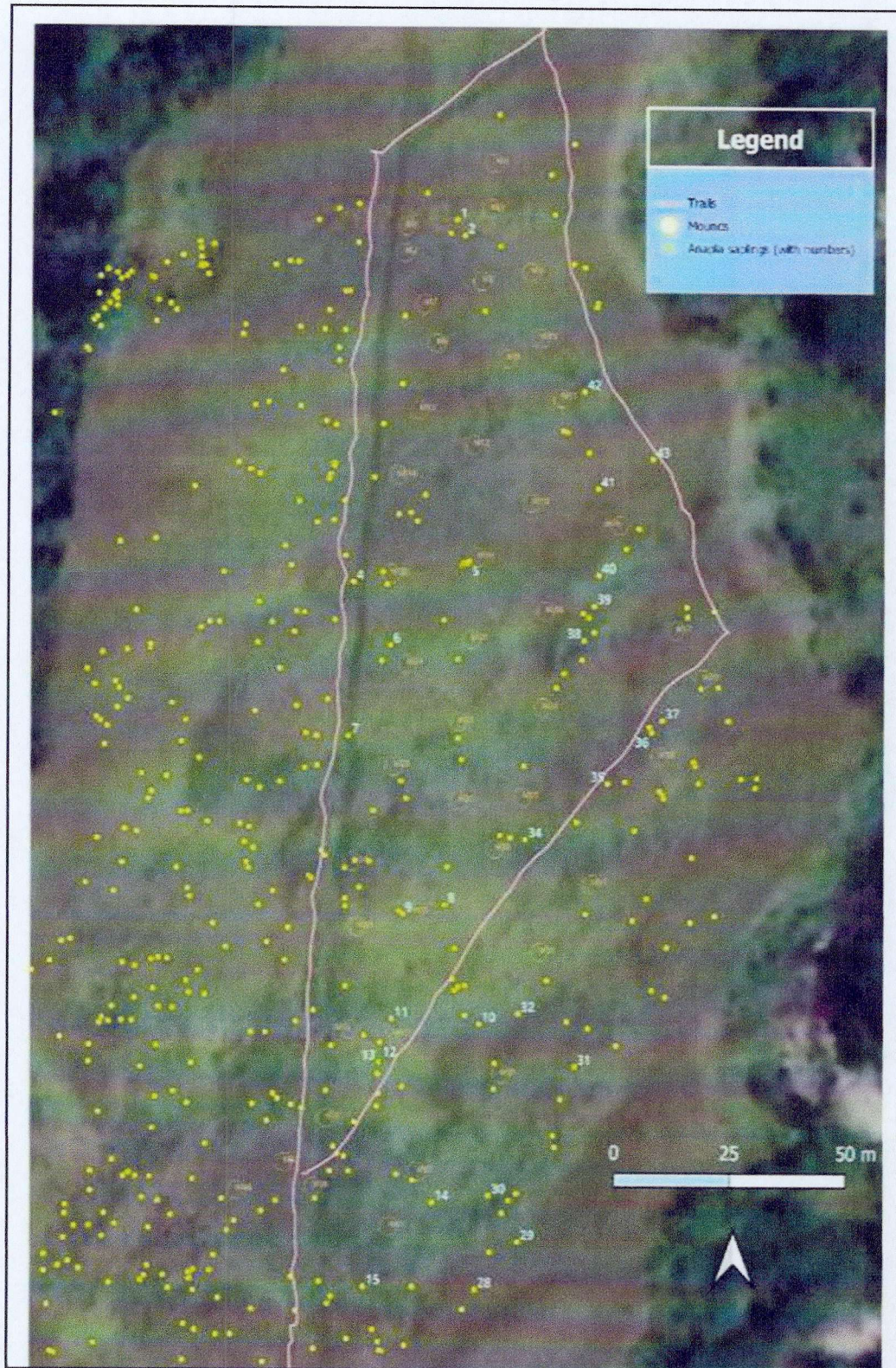


Map 3. Monitoring design for the no intervention section in the habitat restoration area in Landing

months. The first set of data has been collected.

In the with-intervention section, forty-two mounds were established. Each mound was filled with biomass (logs, fallen leaves, cut grass). Two-meter high marker poles with numbers were placed on each mound pierced into the ground to easily locate the mounds for monitoring purposes. All the planted trees in the mounds are recorded and their survival will be monitored monthly. Some of these germinated on the mounds, some were brought there through the transported biomass, and most were planted (from the nursery as seeds or wildlings). Two hundred ninety-eight seedlings have so far been recorded in the mounds. The list of Species of seedlings planted in the mounds is presented in **Attachment 2**. (Note: the mound of one acacia was not recorded in the Excel monitoring sheet; unid = unidentified)

Forty-two (42) anaplas with heights between two to four feet were randomly chosen (see **Map 4**). Companion trees will be planted beside these anaplas to form tree triangles; the planting will commence in the next quarter.



Map 4. Location of anaplas chosen for the tree triangles

2. Expected Output 2: At least two Taubuid communities are engaged in implementing agreed plans of activities to improve sustainability of resource and land use and rehabilitate damaged landscapes in and around Tamaraw habitat

2.1 2022 Performance Indicators

- Community Conservation Plan (CCP) draft completed
- Number of Taubuids adopting new practices
- Strategy for erosion control, fire management, and invasive species control developed

2.2 2022 Planned Activities

- Hold participatory resource management planning (community conservation plan, or CCP) events with the Taubuid
- Work with at least one selected village to enable and encourage uptake agricultural extension advice
- Develop and start to implement strategies and joint actions for fire management, erosion control and invasive species control.

2.3 Progress

1. As agreed with Punong Tribu during the last quarter, the draft CCP will be discussed first with him before this is discussed with the relevant Taubuid settlements. The plan is to present the draft by the end of this year. Based on initial data collected, the appropriate scale for the plan that is emerging is that of two or at the most three settlements (most likely Tagurades, Bayanan and Bangkodo) whose community territories intersect with the tamaraw range (see **Map 1** on page 4). At this stage, the program is continuing data gathering for information that would feed into the draft CCP. The research strategy and interview questionnaires discussed in the Output 1 section is guiding the collection of data. The aversion of the Taubuid in the uplands to being interviewed and being visited in their settlements and in their swiddens invalidates quantitative research methods and leaves the program with no other choice but to use qualitative methods. The program is therefore relying on analyzing aerial views using Google Earth Pro software to understand stable landscape elements. The program is also interviewing Taubuid leaders from category 1 settlements, PAMO rangers, and other DENR staff who have worked in the uplands of Iglit to get more informations.

Towards the end of the workshop on “**Sustainable Land Use and Livelihood System from the Perspective of Social Geography**” in May, participants were given assignments to collect information on the following: 1] mapping of swidden areas in Tagurades, Bangkodo, and Bayanan, 2] history of swidden management and fallow management, 3] indigenous seed banking, 4] identifying the trees that recover during the fallow period in the swiddens, 5] assessment of the population density in category 2 settlements and comparing

this with the sustainability threshold for inhabitants per kilometer square. Some of this information have been collected and together with other data gathered, led to the updating of the “state of knowledge” on Taubuid land use and natural resources practices and the key information collected that was discussed in the Output 1 section.

Discussions with Taubuid informants led the program to came up with a proposed Fanabuid translation of the CCP, “Fasadan noggalaga mangilafang, fananomon, ay araw” {literally this translates to “plan to conserve wildlife, plants, and forests”). In the coming months until the end of this year, the program will collect additional more specific information on the following topics that would feed into the drafting of the CCP:

- Beliefs and practices related to the talundan (old forests)
- Beliefs and practices related to faksandigan (burial sites) that become sacred areas
- Beliefs and practices in the use and management of safa or batangan (rivers)
- Beliefs and practices related to mountains and peaks
- Beliefs and practices related to safong (hunting using circular fire)
- Updating the boundaries of the hunting territories
- Beliefs and practices related to gathering
- Beliefs and practices related to swidden farming
- Beliefs and practices related to abandoned community territories

The program already possesses general information on some of these topics. The focus will be to collect information with finer details especially in the category 2 settlements.

2. The attitude of the Taubuid residing near Station 2 towards the program remains to be detached but curious. Some of them exchange vegetables and other crops for rice, sugar, coffee, and other stuff not available in the uplands. Others provided planting materials for free or in exchange for the same abovementioned items. Others observes what is being done in the kitchen garden, in Landing, or even the hands-on training being done and they engage the staffs in informal conversation. This is done almost exclusively by males but in a few occasions female Taubuid talk with the program’s female staffs. But they still do not directly participate in the activities even as workers for just a few days to earn cash. Some of them, however, lend their services as porters when requested during a time when they badly needed cash to buy rice for a planting activity of one of their community members. One Taubuid who was reluctant to talk to us before told us in private that he now understands what we are doing but begged us not to tell other members of their community because their elders do not approve of them supporting the program.

Against this backdrop, the strategy of the program remains anchored on demonstrating by example and let the Taubuid see for themselves the

possibilities and just continue to engage them in conversation but never to force them to participate in any training or activity.

Another approach in trust building that the program employed is to respond to their request for loans of rice that would be used to feed fellow Taubuid who help in cooperative rice planting activities or during times of fanlunos (lean months). This started during the lean months last year (sometime in August 2021). A dongdong (rice store house with one leg) was constructed beside the DAF hut in Station 2 and this housed the fare (unhusked rice) that was paid by those who borrowed last year. Upon the request of those residing in Category 1 settlements, another dongdong was constructed in Tamisan II, early this year. Labor was provided by the Taubuid and materials were donated by a friend of a DAF staff. They were also able to buy Php 10,000 worth of unhusked rice from the Taubuid during the harvest season in November 2021. The money was donated by a certain staff of DAF. This quarter in May, DAF donated an additional Php 15,000 worth of milled rice and another Php 5,000 worth of milled rice was donated to the dongdong in Tamisan II. A local politician also donated eight (8) sacks of rice to the Taubuid. The DAF and the Taubuid inside MIBNP signed a MOA regarding the dongdong, stipulating its purpose to provide low interest rice loans exclusively to the Taubuid to help them during fanlunos (lean months) and to assist them to extricate themselves from the debt trap that drives them to expand their swiddens and clear more forests provided that they manage the system themselves and keep a record of the transactions that they will share with PAMO, DAF and the donors. Towards the end of May, during the onset of the rice planting season, the dongdong initiative loaned a total of 18 sacks of milled rice and 4.9 sacks of rice seeds to more than 30 Taubuid. The dongdong initiative has definitely increased the confidence of key Taubuid leaders in the sincerity of the program. However, only the Taubuid in category 1 settlements have the willingness and the capacity to keep records and manage the system. The Taubuid in the uplands wanted the program to be the one to manage the dongdong system for them. The program will continue to explore options in this regard as this seems to be a key aspect in gaining the trust and cooperation of the Taubuid of MIBNP.

3. Apart from expressing their concern over the plan to phase out grassland burning in the core zone of monitoring that was discussed during the previous quarterly report, strategies for fire management, erosion control and invasive species control has not been discussed during the quarter. This will be included in the CCP formulation process.
4. **Expected Output 3: The Tamaraw population is well protected, stable or increasing and occupying an increased protected zone of at least 2,500ha**

3.1 2022 Performance Indicators

- Refined census method implemented

- Agreement on enlarged no hunting area (or section in CCP)
- Number of rangers and data managers trained/coached
- Annual law enforcement report
- At least two awareness campaign events

3.2 2022 Planned Activities

- Support, develop, and implement refined census techniques for Tamaraw
- Agree an enlarged no hunting area with the Taubuid (linked to 2.1)
- Train, equip and support rangers to improve protection and monitor and plan activities using SMART software.
- Collate statistics and publish an annual law enforcement and wildlife crime prevention report
- Conduct an awareness campaign on the management of MIBNP need for tamaraw conservation. Focal groups - Park edge communities - Local government units and official agencies with an interest in MIBNP

3.3 Progress

1. Two (2) on-site activities were carried out during the quarter in relation to refining the census techniques for tamaraw. The on-site activities were:

- **Double observer point count from April 9 to 18, 2022.** Immediately, after the annual tamaraw count that ended on April 4, 2022. Ten trained rangers from DENR- Tamaraw Conservation Program and Mounts Iglit-Baco Natural Park - MIBNP, together with the DAF team and local Taubuid, participated in a ten-day operation in the tamaraw area of presence inside the park. The methodology consists of two observers per team who record independently all the animals they can see from the same vantage point at the same time. Thereafter, the animals reported by each observer are compared, extracting the proportion seen in common and the part that is not, allowing us to calculate the detectability rate and refine the final result. Five teams of two observers were assigned three vantage points each. A total of fifteen (15) vantage points was covered due to the restrictions in the availability of the rangers.

The teams experienced a low pressure with repeated rainfall and fog during the operation, a very unusual weather event at this time of the year, affecting the visibility of animals. In addition, parallel activities beyond the program's control created disturbance in the past few weeks and during the operation. The data now will undergo thorough analysis through statistical models built from the pilot operation last year.

The Double Observer Point Count operation will provide a stronger estimation of the tamaraw population in 2022, reducing some important biases of the traditional annual count, like double counting and missing animals. This operation complements the development of the distance sampling of dungs using transect lines, as a way to continue monitoring the

tamaraw population in a context where the phase-out of grassland burning will invalidate the traditional point count method. Indeed, both the Tamaraw Conservation Management Action Plan (TCMAP) and the Protected Area Management Plan for MIBNP, which are now the roadmaps guiding conservation and management of the species and the Protected Area, are stressing the detrimental impact of regular fire in the count zone; therefore, a plan for stopping burning and restoring natural habitat is also in process in parallel with developing alternative census methods. Technical reports and recommendations will be provided to partners, DENR and local authorities in the coming months to discuss future steps.

- **Double Observer Distance Sampling of Tamaraw Dungs in MIBNP using 27 transect lines from April 25 to May 4, 2022.** This is the result of an intense collaboration of two years aiming to test and develop an alternative census method for tamaraw which doesn't require burning the grassland, unlike the counting method used until now. Data recorded is undergoing cross-analysis with the data from the double observer point count operation conducted earlier in April and the results of the annual tamaraw population count, so as to provide two important information: 1] a more precise estimation of the tamaraw population in the count zone in 2022; 2] a conversion factor between the density of dungs collected through the transect operations and the number of animals estimated through visual counts.

In addition to enabling stopping the use of fire, this methodology allows surveying all types of habitats, avoiding blind spots (forest lands, deep creeks...) inherent to visual counts and collecting data on other animals such as the Mindoro warty pig (*Sus oliveri*) or Philippine deer (*Rusa marianna*) as well as evidence of illegal activities as it is similar to regular patrols. This experiment will be evaluated in order to propose to the Philippine authorities a suitable method and operational protocol to monitor the tamaraw population in substitution to the current method or complementing to other techniques.

2. Just like in the previous reports, the discussion on the enlarged no hunting areas being done alongside the formulation of the CCP, as discussed in section 2.3 above.
3. The program learned that TCP continued using SMART, but mainly in other areas with tamaraw presence not in MIBNP where patrolling is now done by MIBNP PAMO rangers. There are MIBNP PAMO rangers still using SMART but in a very limited scale. On the other hand, DAF collaborated with the Zoological Society of London, International Union for the Conservation of Nature Species Survival Commission Asian Wild Cattle Specialist Group, and Re:wild in the preparation of a proposal for tamaraw-focused wildlife crime prevention. This proposal includes SMART-related training activities. If successful, the activities will start in April 2023.

4. Dependent on developments in Activity 3.
5. The program completed the production of the second video on permaculture-based system building in Station 2 and has uploaded on YouTube. Here is the link: <https://youtu.be/zVKwrt69RMA>. This video has been also shown to the rangers, some TCP and MIBNP PAMO, and DENR regional office staff. It will also be shown to the MIBNP PAMB members during the regular meeting. The link to the YouTube upload has been shared in DAF's Facebook page so that the public will have access to the video in main social media mainstream.

The program also got selected to make a 10-minute public presentation and a poster at the Second Asia Parks Congress under the Working Group on Governance of Protected and Conserved Areas last May 26, 2022 held in Sabah, Malaysia. The ten-minute public presentation was titled “Merging National Legislation and Indigenous Customary Laws to Manage Landscape and Preserve Wildlife inside a Philippine ASEAN Heritage Park” The poster presentation was titled “Supporting the application Certificate of Ancestral Domain Title of the Taubuid indigenous peoples sharing borders with an ASEAN Heritage Park (see **Figure 5**).

The program was not able to attend the congress physically due to conflicts in schedule (the staff were scheduled to visit the field during the time of the Congress) but the program's partner from Re:wild, Dr. Mike Appleton, made the presentation in behalf of the program.



Figure 5. Poster at the second Asia Parks Congress in Sabah, Malaysia

4. Expected Output 4: A claim for the rights of the Taubuid in their Ancestral Domain is prepared and submitted by the end of the project

4.1 2022 Performance Indicators

- Support to ADSDPP application provided
- CCP plan completed

4.2 2022 Planned Activities

- Provide resources to support the CADT and ADSDPP process, based on the requests of the Taubuid and the NCIP
- Complete documentation of all requirements for CADT and ADSDPP inside MIBNP (CCP)

4.3 Progress

1. On 31 March 2022, Memorandum Order 2022-03-037 was issued by the National Commission on Indigenous Peoples (NCIP) Regional Office delegating the NCIP Mindoro Provincial Team to work on the CADT Application of the Taubuid ICC in Calintaan and Sablayan, Occidental Mindoro. The outgoing Sablayan Municipal Mayor Andres Dangeros has provided his share of commitment through the NCIP with a check amounting to Php 30,000, This is in addition to the support that DAF is providing.

Last 6 June 2022, the Sablayan Prison and Penal Farm Superintendent and the NCIP Team accompanied by the Taubuid leaders had a meeting and agreed that the NCIP Team would provide an information letter to the regional office of the Bureau of Corrections informing the said office that the 2010 survey for the ancestral domain claim would be continued this year. The SPPF Superintendent expressed no opposition to the area being claimed by the tribe as it is highly forested area which is a strictly protected zone. There are flat areas for cultivation on the claim but the non-IPs have positioned in that area and are not being controlled by the SPPF management. Thus, SPPF is in support of the survey of the ancestral domain claim within the farm provided that the regional office has been formally informed.

Last 15 June 2022 the NCIP Sablayan team, Sablayan IP leaders and DAF Staff met to discuss on the concern of the possible need to outsource a geodetic engineer who will facilitate the conduct of the survey with the supposed NCIP Engineer Mcdenniz Magpali loaded with tasks for the whole region of MIMAROPA being the sole geodetic engineer of the office. As such the following has been agreed:

- a. Engineer Magpali would craft the terms of reference for a geodetic engineer's deliverables for the survey on the Taubuid ancestral domain claim.
 - b. The IP leaders led by Sablayan IPMR Abraham Padua and Barangay Captain for IP Barangay Tagmara Peping Poyngon would re-live the offer of the incoming Mayor Bong Marquez on their offer last 2021 regarding the provision of a geodetic engineer that will be funded by the Sablayan LGU. Update on this will be known beginning July 1, with that being the first day of the new administration.
2. See section on the CCP.

5. Attachments

Attachment 1. Summary of progress made

Expected outputs	2021 Performance Indicators	2021 planned activities	Progress
1] A sound understanding of the structure, culture and needs of Taubuid communities in and around the Tamaraw habitat and of the options and needs for sustainable land use and landscape rehabilitation	<ul style="list-style-type: none"> • Study on Tabouid agriculture, resource use, and food security completed • Detailed ethnographic and socio-economic study to understand how new practices in agriculture and land use can be assimilated completed • At least two study visits and training events completed • Demonstration area established 	<ul style="list-style-type: none"> • Conduct a study of Taubuid agriculture and resource use and food security • Conduct socio economic and ethnographic studies of one Taubuid village in order to understand how new practices in agriculture and land use can best be assimilated. • Conduct exchanges, training events and study visits from the Taubuid to other indigenous initiatives in the Philippines • Establish an area inside MIBNP for trials and demonstrations of 	<ul style="list-style-type: none"> • “State of knowledge” on Taubuid land use and natural resource management practices updated incorporating additional collected information and research strategy for the CCP pre-tested and interview guides started to be used. • Data collection on-going informed by inputs from conducted training activities for staff • Two training activities conducted: 1] “Sustainable Land Use and Livelihood System from the Perspective of Social Geography” and “Seed Saving.” • Technical visits of PPA carried out 27 May to 2 June. Planting in food forest section and habitat restoration area in Landing initiated. More naturally-growing saplings located and

			<p>agriculture and agroforestry and ecosystem restoration techniques.</p>	recorded. .
2] At least two Taubuid communities are engaged in implementing agreed plans of activities to improve sustainability of resource and land use and rehabilitate damaged landscapes in and around Tamaraw habitat	<ul style="list-style-type: none"> Community Conservation Plan (CCP) draft completed Number of Taubuids adopting new practices Strategy for erosion control, fire management, and invasive species control developed 	<ul style="list-style-type: none"> Hold participatory resource management planning (community conservation plan, or CCP) events with the Taubuid Work with at least one selected village to enable and encourage uptake agricultural extension advice Develop and start to implement strategies 	<ul style="list-style-type: none"> Informal discussions with Taubuid yield additional information that were incorporated in the documentation of traditional practices Trust building phase continues; Taubuid leaders in Anahawin provided 18 sacks of rice as loans as part of the <i>dongdong</i> (rice store house) initiative supported by DAR and others Fire break at Landing continue to be maintained as a model for fire 	

			and joint actions for fire management, erosion control and invasive species control.	management. Alignment meeting with BIOFIN consultants on habitat restoration conducted in the last week of June.
3] The Tamaraw population is well protected, stable or increasing and occupying an increased protected zone of at least 2,500ha	<ul style="list-style-type: none">• Refined census method implemented• Agreement on enlarged no hunting area (or section in CCP)• Number of rangers and data managers trained/coached	<ul style="list-style-type: none">• Support, develop, and implement refined census techniques for Tamaraw• Agree an enlarged no hunting area with the Taubuid (linked to 2.1)• Train, equip and support rangers to improve protection and monitor and plan activities using SMART software.	<ul style="list-style-type: none">• Fourth and last iteration of double observer point count and double observer distance sampling of dung conducted in April and May• Discussions with Taubuid on-going• Some rangers in MIBNP continue to use SMART but database management remains done by TCP• Second video on the permaculture-based system for food production	

	<ul style="list-style-type: none"> • Annual law enforcement report • At least two awareness campaign events 	<ul style="list-style-type: none"> • Collate statistics and publish an annual law enforcement and wildlife crime prevention report • Conduct an awareness campaign on the management of MIBNP need for tamaraw conservation. Focal groups - Park edge communities - Local government units and official agencies with an interest in MIBNP 	<p>and habitat restoration completed, uploaded on YouTube and shared to the public via Facebook.</p>
4] A claim for the rights of the Taubuid in their Ancestral Domain is prepared and submitted by the end of the project	<ul style="list-style-type: none"> • Support to ADSDPP application provided • CCP plan completed 	<ul style="list-style-type: none"> • Provide resources to support the CADT and ADSDPP process, based on the requests of the Taubuid and the NCIP • Complete documentation of all requirements for CADT and ADSDPP inside MIBNP (CCP) 	<ul style="list-style-type: none"> • NCIP Sabalayan discussed with Sablayan Prison and Penal Farm management who expressed no objection to the delineation activity. Taubuid leaders exploring ways to find a geodetic engineer as NCIP's engineer is being fulfilled by other mapping priorities. • Documentation being done by NCIP as per agreed Work and

				Financial Plan.
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Attachment 2. Species of seedlings planted in the mounds

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