‘Washing out Diversity’:
The Impact of Oil Palm Plantations on Non-Timber Forest Products (NTFPs), Indigenous People’s Livelihood and Community Conserved Areas (CCAs) In Palawan (the Philippines)

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"ALDAW is against all forms of food production contributing to climate change and to the privatization of natural resources by agribusiness enterprises. We believe that large-scale monocultures are worsening global food crisis. We support sustainable peasant and indigenous agriculture that is rooted to local economies and grounded on local culture and traditions. We are not supporting the appropriation of public natural resources that are taken away from traditional users and put under the control of large corporations" (organization's statement).

A. INTRODUCTION

Between 30 June 2012 and 15 May 2013, ALDAW (Ancestral Land/Domain Watch) has carried out several field appraisals in six southern Municipalities in Southern Palawan, which are all being affected by oil palm development. The primary objective[1] was to obtain information on the impact of oil palm development and mining on non-timber forest products (NTFPs). This main task was pursued concurrently with advocacy initiatives which, indeed, are part and parcel of the ALDAW mandate. So while research data was being collected, our field staff continued to organize local communities, extending paralegal assistance to them, while building up consensus against oil palm companies and raising awareness on the social and adverse impact of oil palm plantations through meetings and video-showing. At the same time, on May 6 2013, ALDAW launched an international call for a moratorium on further expansion of oil palm plantations in Palawan which received much support from the global community, and more than 100,000 signatures were collected online (see https://www.rainforest-rescue.org/mailalert/915/our-ancestral-land-is-worth-more-than-palm-oil).

Although the initial focus of our research was to investigate the impact of both oil palm and mining on useful plant species, most of our data, instead, had to do with the environmental consequences of oil palm expansion[2]. Since the beginning of our investigation, the majority of our indigenous collaborators had brought to us the following concerns: **a)** a drastic decrease of NTFPs used for making items such as *sawali* (woven bamboos for house walling) and *banig* (mats) - which are also sold in the local market, and **b)** a decline of medicinal plants and of other plant species used as house material and for the production of traditional objects. In addition to this, indigenous people from the impacted areas continuously manifested their preoccupation for the disappearance of animal species and fresh water resources which they could no longer hunt and gather due to massive land conversion by oil palm enterprises. These concerns encouraged us to narrow down the scope of our research to Pälawan plant species and their uses[3] and to focus on a limited number of indigenous communities found in two locations: Barangay Pulot (Municipality of Sofronio Española) and Barangay Iraan (Municipality of Rizal). Particularly, the Pälawan communities of barangay Pulot became our main research partners, being themselves exposed to both mining and oil palm threats.

Indigenous people's grievances and our preliminary research findings were presented in the course of two oil palm inter-agencies meeting that took place in Puerto Princesa City on 7 and 28 August 2013, and which were attended by representatives of local NGOs, indigenous peoples' organizations, members of oil palm impacted communities, staff of

key government agencies such the Palawan Council for Sustainable Development (PCSD), the National Commission on Indigenous Peoples (NCIP), Provincial Environmental and Natural Resources Office (PENRO), Philippine Coconut Authority (PCA), oil palm cooperatives' chairmen and two representatives of the Agumil Philippines, Inc. (the major oil palm company)[4]. During these meetings the representatives of the Palawan Council for Sustainable Development (PCSD) and of the Philippine Coconut Authority (PCA) argued that our findings had to be corroborated by more systematic and scientific data. Unfortunately, at that time, our field data about the impact of oil palm plantations on NTFPs had not yet been organized, so we were unable to present these in the course of the inter-agencies meetings. The identification of plant species through detailed consultation of existing bibliography and comparison with illustrations found in botanical volumes has taken considerable time[5]. Now that most of this work has been accomplished, we hope that the data provided in this report will clearly demonstrate that oil palm development is far from being 'environmentally friendly' and 'socially compatible'[6]. On the contrary, it is contributing in a major way, to the destruction of the resource-base on which hundreds of local indigenous communities depend, thus affecting their 'traditional knowledge', 'cultural integrity' and wellbeing.

In section B of this report, background information on the uniqueness of Palawan biological diversity and on the Pälawan ethnic group are provided with particular emphasis on their upland agricultural practices, extraction of 'sago' starch from wild palms, and use of plants for basketry and for the construction of other traditional items. This is to provide the reader with the necessary background information to better understand our research findings within the context of Pälawan cultural traditions and worldview[7]. In addition to this, this section provides a brief description of oil palm industry in Palawan, a profile of companies and their overall target.

Section C describes our research findings with reference to the communities involved in the study. We will be visiting these communities again in the near future to support their locally grounded efforts against the encroachment of mining and oil palm companies. During such visits, we plan to double-check with them some of the information that has already been gathered during previous ALDAW appraisals. We consider the present study as a work in progress which will have to be constantly updated, also beyond project's termination.

Section D (conclusions), suggest that a direct relationship exists between oil palm expansion, the impoverishment of people's diet, the progressive deterioration of traditional livelihood and the interruption of cultural transmission of specific aspects of people's knowledge. This section also analyses some of the possible reasons behind the weak involvement of civil society at large, as well of national NGOs, with the anti-oil palm struggle. Policy recommendations for key government agencies and two lists of Pälawan plants' names and uses are provided in the annexes. Copies of important documents are found at the end of this report: these include evidences of deforestation by oil palm companies attested by CENRO (Community Environment and Natural Resources Office), a related criminal case filed by CENRO-Quezon, as well as a letter addresses to Agumil Philippines Inc. by the Palawan office of the National Commission on Indigenous Peoples (NCIP). A copy of the only SEP (Strategic Environmental Plan) clearance issues by the Palawan Council for Sustainable Development (PCSD) to Palawan Palm & Vegetable Oil

Mills Inc. for its nursery and oil mill area (about 13 hectares only) stands as an evidence that no other SEP clearances have been released by PCSD for the remaining thousands of hectares being converted into oil palm plantations. Letters of support to the call for a moratorium on oil palm expansion, by international organizations and well-respected individuals are also found at the end of this report.

B. BAKGROUND INFORMATION

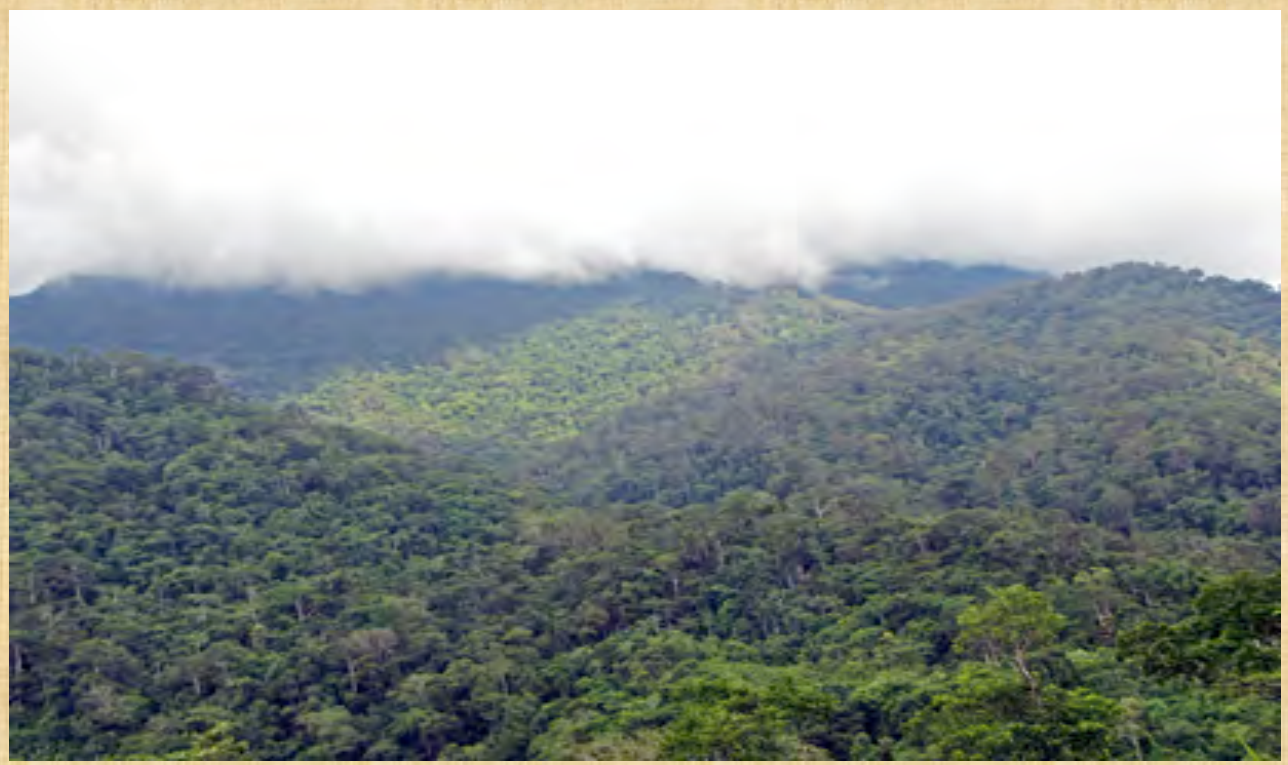
B.1 The Province of Palawan and its biocultural diversity

Palawan Province, in the Philippines, has a total land area of 1,489,655 hectares; 690,000 hectares of which are terrestrial forest and 44,500 hectares are mangrove forests. It is located 7º47' and 12º22' north latitude and 117º00' and 119º51' east longitude, bounded by the South China Sea to the northwest and by the Sulu Sea to the east. The main island is nearly 278 miles long (about 435 kilometers) and has a width of forty kilometers at its widest part. It is surrounded by 1,767 islands and islets. Its steep mountainous terrain and the very thin topsoil makes the island prone to erosion and landslides.

Palawan had a population of approximately 892,600 in 2007 distributed in its twenty-three municipalities and in the provincial capital city (Puerto Princesa). Approximately 20 percent of the total population is made of indigenous peoples belonging to three main ethnic groups: Tagbanua, Pälawan, Batak (on the main island) and Molbog (on Balabac Island). The primary sources of livelihood and income are fishing, agriculture, collection of non-timber forest products (NTFPs) and tourism. The southern part of the main island, where most mining and oil palm activities are concentrated, is also inhabited by vulnerable upland communities of the Pälawan ethnic group, which are living in partial isolation. Such indigenous communities are the traditional custodians of a unique biodiversity, which also includes 49 animals and 56 plant species, which are globally threatened with extinction according to IUCN (The International

Union for the Conservation of Nature).

It has been estimated that at least 11 of the 25 non-flying mammal species indigenous to the Sundaic region are unique to Palawan, in addition to 14 bird species (Diamond and Gilpin 1983; Heaney 1986). Overall, at least thirty-one animal species found in the province are single-island endemic, and two of them (the Palawan pheasant and two species of swallowtail butterflies) are listed in the International Union for Conservation of Nature Red Data Book (Collins and Morris 1985). The Philippine crocodile still survives in small numbers along the estuaries of the main rivers.



A botanical survey found 1,672 species of higher plants on the island, discovering an additional 153 species (Hilleshög Forestry A.B., Landskrona 1984). These are distributed within a mosaic of vegetation types, including mangrove forest, beach forest, karts forest, lake-margin forest, semi-deciduous lowland forest, forest on ultramafic soil, middle altitude evergreen forest and montane forests (Hunting Technical Services Limited et al. 1985).

Few places in Southeast Asia can match the distinction of the province, home to seven protected areas, a declared “Game Refuge and Bird Sanctuary” since 1967 and a “Mangrove Reserve” since 1981. UNESCO declared the whole Province a Man and Biosphere Reserve in 1990. Included are two World Heritage Sites: the Tubbataha Reef Marine Park and the Puerto-Princesa Subterranean River National Park.
Logging was also once a thriving industry in the province while, today, there is a moratorium on commercial logging. However, illegal logging is still rampant.

Palawan is also known for its rich natural gas reserves - the Malampaya gas field located 80km off the coast of Palawan with a capacity of 2,700MW and the Galoc oil field.

Today the areas being threatened by aggressive development include indigenous communities' conserved territories and their burial grounds, sacred and worship sites. The local inhabitants perceive the destruction of these historical and natural landmarks as an obliteration of their history and collective memories of the past.

B. 2 The Pälawan ethnic group

The Pälawan is an Austronesian speaking ethnic group inhabiting the southern region of Palawan Island in the Philippines. They perceive themselves as divided into two major groupings: the Pälawan of the uplands, *Pälawan ät bukid* or *Pälawan ät daja*, and the Pälawan of the lowlands, *Pälawan ät napan* (see Macdonald 1988, 2007, Novellino 2001a, Revel 1990). Some isolated communities living in the Island's interior, at the edges of the Mantalingahan and Gantong ranges, have retained a higher degree of cultural autonomy and, as of now, have limited contact with outsiders (Novellino 1999b). The total number of Pälawan amounts, approximately, to 10,000 people (see Macdonald 1988).

b.2.1 An Outline of Pälawan Ethics and Worldviews

Pälawan do not have a religious system organized in terms of fixed codes of ethics and of a structured clergy The key moral principle to which people appeal in their everyday life is known as ***ingasiq*** (literally compassion) (Macdonald 1988, 2007).

This is the key term describing proper social behavior and thus one's ability to be generous, compassionate and to show sympathy and pity towards others (Macdonald 1988, Novellino in press a).

Pälawan ritual practices which include healing ceremonies, formulas and prayers and ***deruhan*** chanting, as well as curing dances **(*tarek)*,** are part and parcel of what the people defines as ***adat et kegurangurangan*** (the customs of the ancestors) (Macdonald 1988, 2007) The shamans **(*beljan*)** are not regarded as superior or 'sacred' persons, nor do they enjoy any particular status. They are generally normal people who are believed to be able to access the invisible world and to contact 'powerful super-human beings' (***taqaw kewasa*** *or* ***diwata***) either during trance or dream. Generally the shamans' distinctive quality has to do with abilities of 'seeing' **(*memiriq*)** and extracting from the patient's body those impurities causing sickness (Macdonald 1988, see Novellino 2003b). Generally, shamans are also expert in the use of 'medicinal' plants. The latter are often collected and used after receiving permission from their mystical owners (Novellino 1995-1996).

Occasionally, in its attempt of 'healing the world', the life-force of the shaman is believed to travel to the other levels of the universe (e.g. the underworld). Pälawan universe is perceived as vertically organized and divided in fourteen different layers (Macdonald 1988, Novellino 2003b, Revel 1990).

According to the Pälawan, humans possess multiple ***kuruduwa*** (souls or life-forces). The most important ***kuruduwa*** is believed to enter and fill the body through the whorl of the hair in the region of the fontanels **(*bubun*)**. Only this ***kuruduwa*** at the crown of the head is associated with ***näkam*** (consciousness, discernment and judgment). The ***kuruduwa*** of the head is also the focal point of Pälawan curative treatments (Macdonald 1988, Novellino 1999c, 1999b, 2003a). According to people's own belief system, human health depends on the integrity of the tangible (the body) and intangible component (the life force). Hence, the loss of the ***kuruduwa*** produces a bodily and intellectual loss of balance, a disturbance to the very core of the 'self.' It makes the human body vulnerable to illnesses and to attacks by malevolent entities (Novellino 2003b). A newborn child is particularly vulnerable to sickness, as his soul is not yet firmly secured to the body, and specifically to the top of the head **(*erimpuru*)** (Macdonald 1988, Novellino 1999b, 2001, 2003a).

The most important collective ritual attended, in the past, by representatives of different Pälawan communities was known as ***panggaris*** (meaning 'slicing'). The ritual which appears to have been abandoned in the early nineties after the dead of Tuking, a powerful shaman, is preceded by several days of gong playing **(*basal*)** and ritual dancing **(*terek*)** (Macdonald 1988, 1997). The most important stage of the ritual consists in the 'opening of the earth' with a ritual sword by the shaman. The ground is sliced eight consecutive times and - on the last time - a hole in the ground is made using the same sword. This activity is followed by various sequences that include the pouring of coconut oil **(*lana*)** in the hole, the introduction of other ritual items in the same hole [e.g. branches of ***rukuruku*** (*Ocinum sanctum*) the dancing of the shaman and of a virgin, the offering of newly harvested rice, etc. All these activities are associated with the action of 'cleansing the earth' from all 'dirty' **(*meriddi*)**

human behaviors, such as incest (Macdonald 1988, 1997). The cleansing of the world is also meant to avoid that a dragon like monster **(*tandajag*)** will take revenge against humans, swallowing the entire heart and making it to sink and vanish in the vastness of the universe (Macdonald 1988, 1997). The ***panggaris*** was traditionally celebrated between the months of October and November, during the flowering of some trees that are providers of pollen for the bees. In fact, the Pälawan believe that this ceremony will also cause an abundant harvest of wild honey (Macdonald 1988, 1997, Novellino 2001a).

The Supreme Being for the Palawan is known as ***Empuq*** (the Lord or the Owner) and he is perceived to be the creator of all things in the world. Other benevolent beings are believed to reside in the higher mountains, and in those portions of the terrestrial world, which remained untouched by the legendary flood (Macdonald 1988, Novellino 1999b). The forest is also believed to be the domain of a large number of demons such as ***sejtan*** and ***lenggam***, the latter being the caretakers of poisonous and 'biting animals' **(*rämu-rämu*)** such as ***älupjan*** (centipede), ***bäncanawa*** (scorpion), ***kätimamang kätimamang*** (mygale spider), ***säli*** (snake) (Macdonald 1988, Novellino 1999b, Revel 1990). These are taboo animals, of which consumption and killing is forbidden. Any attack of ***rämu-rämu*** upon humans is said to be activated by the anger of their owners. The reasons why humans become vulnerable to ***rämu-rämu*** attacks include 'ecologically unsound behavior' such as over-hunting, harvesting of trees inhabited or guarded by certain entities, etc. (Novellino 1999b). Before clearing a forest plot, Pälawan consult and appease various entities, and interpret omens in dreams. Certain signs are placed in the area chosen for the swidden, to determine whether the 'entities' inhabiting that particular portion of the forest are willing to vacate it. The people believe that after trees have been felled, the swidden begins to be occupied or visited by different entities. Some of them are said to inhabit the swidden only for limited periods, and to return later to their cosmological locations (Macdonal 1988, Novellino 2007c).

The Pälawan attribute therapeutic properties to a large number of plants. It is believed that the causes of illness must be determined by taking into accounts various occurrences such as the infringement of a prohibition and unexpected encounters with malevolent entities responsible for stealing the humans' life force (***kuruduwa***). Temporary departure of the 'life force' induces sickness only, but permanent separation of the kuruduwa from the body is believed to cause death. Useful plants are believed to be 'owned' by benevolent entities ***Diwata*** (Novellino 1995-1996, Novellino 2001). Hence, the administration of medicinal plants can be coupled with the stylized repetition of a specific formula ***tawar***, or by addressing the mystical owner' of the plant with certain words (***ämpang ät ururu'***) (Macdonald 1988, Novellino 2001). The use of plant species is believed to be necessary to pursue certain aims: e.g. the protection of rice fields from pests, keeping malevolent entities away, becoming invincible, gaininig the admiration of a woman, attracting game animals (Macdomald 1988, Novellino 1995-1996, Novellino 2001, Revel 1990).

b.2.2 How Do they Live?

The Pälawan are swidden cultivators with a sophisticated knowledge of intercropping techniques. Resin from *Agathis philippinensis* (*bägktik*), rattan canes (semi-woody climbing palms) and wild honey are collected for sale. The wild pig, *bjäk*, is the preferred game and its catch is usually preceded by a request to the 'master' of the animal game. Also bees are imagined to have their own master who dwells in the upper-world, and can only be seen by the ***baljan*** (shaman) during trance (Novellino 2001a).

Traditionally, every seven years, a ceremony (***simbung***) was performed in honor of the ***master of bees*** and to restore the cosmic balance (Macdonald 1988, Novellino 2001a). Starch (***natäk***) is extracted from both domestic and wild palms and represents an emergency source of energy. The felling of the *gumbja* palm (*Metroxylon sagu*), is often preceded by a sort of skirmish mimicking a duel between the gatherer (acting as a sort of warrior) and the *gumbja* (addressed by the gatherer as ***käläng taw*** - the "Big Man") (Novellino 2001a). The more settled Pälawan also engage in the cultivation of wet rice, coconut for commercial purposes and raise domestic animals such as caws, buffalos and pigs. At first sight, members of such communities may be undistinguishable from migrant farmers and, in many cases, intermarriages have occurred between both groups (Macdonald 2009). The majority of the communities affected by oil palm expansion belong to the 'Pälawan of the lowlands' and have experienced various levels of acculturation and integration into the mainstream society. This also implies that, compared to the 'Pälawan of the uplands', they have undergone significant transformations and have been subject to stronger degrees of cultural erosion.

b.2.3 Common trends in Pälawan upland farming and beliefs

Shifting cultivation requires an area of land that is much larger than that being cultivated, to ensure that soil will regain its fertility through fallow periods. Fields, once cultivated, are left to fallow for several years and then replanted with rice, root crops and vegetables. There are basically six stages in the swidden cycle: underbrush cutting, felling the forest, burning the dead vegetation, planting or sowing the seeds, weeding the field and harvesting. Most often, indigenous cultivators in Palawan use secondary and tertiary forest that is grown during the fallow period rather than primary forest. In fact, the latter would need higher energy expenditure to be chopped down (Novellino in press b).
Intercropping techniques are known and mastered by Pälawan. Soil, mostly from long-fallow vegetation, secondary forest, and occasionally primary forest, is first planted with rice. For this purpose, a dibble stick is used. This does not disturb the fragile top soil behind a depth of a few centimeters (Novellino in press b).

Corn and upland rice are planted almost at the same time; the former matures in about three months and may be planted twice. *Andropogon sorghum* (L.) Bronth, *Sorghum vulgare* (L.) Moench, *Coix lachryma jobi* (L.) etc. can be planted at the same time with rice, forming breaking lines across the agricultural field. Other crops such as *Setaria italica* (L.) Beauv. and *Sesamum orientale* L. are planted at the margins of rice fields. About one month after rice planting and, when rice stalks have reached a size of about 20/25 centimeters, *Colocasia esculenta* Schott & Endl., *Alocasia* sp., *Dioscorea alata* L., *Dioscorea bulbifera* L., different species of beans, various cucurbits [*Momordica charantia* L., *Luffa* spp., *Lagenaria siceraria* Standley, *Cucurbita maxima* Duchesne, *Cucurbita*

moschata (Duch.) Poirer, etc.] are planted in the swidden, at the base of stumps, dead logs and fallen tree branches. *Colocasia esculenta*, '*tälus*', is also planted after underbrush clearing or after rice harvesting. Little care is necessary after the initial planting, which is done by burying a piece of shoot or sucker into holes dug with a stick (Novellino 2007c). Cassava, *Manihot esculenta* Crantz, can be planted around the margins of the swidden at the same time with rice. Alternatively, it can be interplanted in the main swidden field, 45/60 days after rice planting. More often, cassava is planted on poor soil, in separate fields. Stems of *Manihot esculenta* from the previous planting season, are cut into pieces of about 25 centimetres long and inserted halfway in the soil at an angle of about 30 degrees. Sugar cane, *Saccharum officinarum* L. can be planted around the swidden fields at the same time with rice, or in breaking lines crossing the swidden plot, about 20 days after rice planting. Sweet potatoes are usually introduced into the field when most of the previously planted crops have been harvested. Coconut palms, bananas and fruit trees, such as papaya can be cultivated inside the swidden. Various combinations of pepper, eggplant, tomato, sugar cane, melon, squash, ginger, plants for fish poison, fruit trees, cassava and other root crops are planted in the farm gardens, adjacent to the semi-permanent field huts (Novellino 2007c).

The forest is believed to be the domain of a large number of demons such as *säjtan* and *länggam*, the latter being the caretakers of poisonous and 'biting' animals (*rämu-rämu*) (Macdonald 1988, Novellino 1999b, Revel 1990). Before clearing a forest plot, the Pälawan consult and appease various entities, and interpret omens in dreams. Certain signs are placed in the area chosen for the swidden, to determine whether the 'entities' inhabiting that particular portion of the forest are willing to vacate it (Novellino 2007c).
Even after 'permission' for slashing the forest has been granted by the *länggam*, there are still a number of precautions that the people should take before slashing the underbrush vegetation.

A Pälawan legend attributes the origin of rice and cultivated plants to a human sacrifice (Novellino 2007c, Revel 1990). Each year, before planting rice, the people practice a number of ceremonies to call back the *kuruduwa* ('life force') of the child who was killed by his father in legendary times. Germination of rice seeds and the health of crops is said to depend on the action of the 'child's life force' (Novellino 2007c).
For this purpose, Pälawan build a ceremonial structure (*pinädungan*) in the centre of the swidden (cf. Macdonald 1988, Novellino 2007c, Revel 1990). This is the place where the 'child's life force' will reside during the planting and growth of rice and several measures will be taken to protect it from all sorts of dangers and inconveniences.

It must be specified that the practice of making *pinädungan* has mostly been abandoned by the most acculturated Pälawan communities living in the proximity of the national road, even before the establishment of oil palm plantations. These communities often live in mixed settlements uninhabited by both migrants and indigenous peoples and inter-marriages are frequent amongst these groups. Although *pinädungan* is no longer being constructed by the most acculturated Pälawan communities, this does not entail that the whole system of beliefs and practices related to upland rice has been lost. In some communities, certain features of traditional agriculture knowledge and related beliefs continue to persist while others may not be transmitted (Novellino personal communication). In those Pälawan communities that are undergoing intense acculturation, the establishment of oil palm plantations represents 'the final blow', in short

it contributes to erase what remains of peoples' traditional knowledge, especially in relation to the use of medicinal plants and other species employed in the construction of objects and artifacts. In addition to this, oil palm expansion accelerates the disappearance of genetic diversity of crops and, as a result, the whole system of knowledge associated with such crops becomes meaningless and fades away (Novellino personal communication).

b.2.4 'Sago' starch: an emergency food on the verge of disappearing

Sago palms in southern Palawan provide an emergency food (starch), on which people rely in moments of need, for instance when they experience crop failure, e.g. during drought (cf. Macdonald 2007). In the face of ongoing climatic changes and erratic whether patters, both cultivated and wild sago palms represent an important source of starch when no alternative carbohydrates are available (Novellino 1999d). In Palawan, sago palms include species from at least three genera: Metroxylon, Arenga, Caryota. Both the spiny and smooth taxon of Metroxylon are found on the Island (Novellino 1999d). In Pälawan language *natäk* is the starch that accumulates in the trunk of certain species during the vegetative phase lasting approximately between 7 to 15 years (Kiew 1977). The starch from *Metroxylon sagu* Rottb, is extracted during the palm's reproductive phase. Generally, the plant dies after bearing fruits. The period between the production of the single terminal inflorescence to fruit bearing lasts approximately two years and coincides with the loss of the remaining leaves and the exhaustion of the carbohydrate supply in the stem (Kiew 1977). The best period to extract the starch from *bätbat* (*Arenga undulatifolia* Becc.) is when flowering begins. Pälawan define this period of the vegetative phase as *kumugita*. On the contrary when the palm is bearing fruits, *natäk* extraction is said to be unproductive (Novellino 1999d).

Bätbat is regarded by the Pälawan as one of the most valuable wild palms and, according to our investigation (see table no.1), this palm features amongst those species facing significant decline, due to the expansion of oil palm plantations. *Bätbat* is found in clusters at low/medium altitude both in primary and secondary forest, and even in swidden fields under fallow. This is to say that the locations in which this specie is customarily found coincide exactly with the areas being converted into oil palm plantations or being considered for future expansion.

The extraction of palm starch is generally a household oriented activity, involving a group of close kin. Trips to starch palm locations may include other forest based activities, such as the collection of wild fruits, vegetables, and honey (Novellino 1999d).

There are three species of palms commonly utilized for their starch: the *bätbat* (wild) also known as *putäl* or *bänkäs*, the *nangäq* (wild), and the *gumbja* (cultivated) (Novellino 1999d). Techniques for the extraction of starch vary from species to species, and the felling of the palm is always undertaken by men (Novellino 1999d, 2001a). Women help with the clearing of the area where starch extraction and processing takes place. Women also play an important role in the actual extraction of starch. Before felling the *bätbat*, a deep 'V' shaped cut is made into the palm trunk to check the consistency of the white marrow, and thus to anticipate the results of starch extraction. If the marrow is not too wet, and has a high content of white powder, this is the sign that the palm can be felled down (Novellino 1999d).

b.2.5 Basketry, artwork and the making of artifacts

In Southeast Asia, basketry and weaving are generally women activities. However, in Palawan, also men make *biday* (rattan mats), using strips of finest Calamus species. Unlike the majority of baskets and mats, this particular mat is worked vertically/horizontally rather than diagonally, and strips are not woven but tied together (Novellino 2007a).

The most common types of weaves occurring in Southeast Asia include: 1) checkerwork; 2) wickerwork; 3) crossed weft; 4) diagonal or twilled. These types of weaves are also represented in Palawan. In the first type of weave, the warp and weft are of uniform size and pliability, and each element passes over one and under one of the other, thus forming square or rectangular checks.

A variant of this weave is found in certain baskets in which the warp is crossed and the weft passes through in regular order, so as to produce hexagonal openings. In wickerwork the warp is rigid; the smaller and more flexible weft passes under one and over one of the former. In crossed weft, two sets of wefts cross each other at an angle and interlace a rigid warp. Diagonal or twilled weaving is particularly common and it occurs when two or more weft strands pass over two or more warp elements, but not the same in adjoining rows; also warp and wefts both run diagonally (see Cole 1956: 58).

Samples of Pälawan weaving types and plant material used in basketry are provided below:

Fig. 1. ***Duduq*** Cover and base, 15 x 9cm.

Fig. 2. ***Duduq*** Base

Duduq**:** (breast-shaped basket): Container for small objects

MATERIAL:

1) Body: ***binsag*** *Dinochloa* sp. (**Poacee**).
2) Circular frame: ***mägtulangän*** probl. *Calamus sp.* (**Arecaceae**).
3) Tying material: ***sika*** *Calamus caesius* Blume (**Arecaceae**).

TYPE OF WEAVE: Twilling

DECORATIVE PATTERN:

Cover *(**sinulindang**);* Base *(**rindäng rindäng**);*

Ätar Ätar 5.5 X 4cm.

Ätar Ätar**:** miniature basket, also used as talisman container

MATERIAL:

gähid *Lygodium* probl.*circinnatum* (Burm.) Sw (**Schizeaceae**).

TYPE OF WEAVE: Wrapping

****

tinkäp 30 X 12 cm.

tinkäp*:* Basket with cover used as container for domestic items

MATERIAL:

1) Body: ***ämagas***, probl. *Calamus sp. or Korthalsia sp* (**Arecaceae**).
2) Circular frames: ***tikäd manuk***, *Calamus* sp. (**Arecaceae**).
3) Base: ***kälapi*** *Calamus merrillii* Becc. (**Arecaceae**).
4) Tying material: ***ärurug***, *Calamus* probl. *javensis* Blume (**Arecaceae**).

TYPE OF WEAVE: Twilling

****

bäka 40 X 26

Bäka: Agricultural and foraging basket

MATERIALS:

1) Body: ***timbärangan***, *Calamus* sp. (**Arecaceae**).
2) Tying material: ***sika***, *Calamus caesius* Blume (**Arecaceae**).
3) Base: ***kälapi,*** *Calamus merrillii* Becc. (**Arecaceae**).
4) Strap: ***lindägung***, *Trema orientalis* (L.) Blume (**Ulmaceae**).

TYPE OF WEAVE: Twilling

An exhaustive treatment of Pälawan “material culture” would probably require the publication of a dedicated volume. Baing aware of these limitations, this report provides information only on the most common objects and tools of the Pälawan cultural repertoire (cf. Macdonald 1974). Information on these are provided in **table no. 2**, where **9** musical instruments are listed together with **6** tools and objects employed in hunting, in addition to **7** different types of traps, **3** items used in honey gathering, **5** types of fishing traps and tools, at least **12** types of woven items, **15** domestic objects (some of them directly employed in the preparation of food) as well as **5** tools/objects used in agriculture and **12** objects of personal use, such as tobacco containers, combs and long-blade knifes. Other instruments and objects such as canoes and anthropomorphic and zoomorphic statues of ritual use are also listed. All these artifacts and material objects are associated with about **150** plant species, belonging to at least **35** plant families.

The progressive decline of such species due to land conversion for oil palm plantations is having a significant impact on Pälawan production of artifacts and artwork. This is to say that a direct connection exists between massive expansion of oil palm plantations and the progressive disappearance of traditional items and related plant knowledge. In turn, as field findings suggest, the decline of these useful plant species is also having direct repercussions on Pälawan cultural reproduction and transmission.
Images related to selected Pälawan artifacts are found below.

Ritual objects

täwtäw (anthropomorphic carvings)

zoomorphic carvings

Musical instruments

gimbal (drum)

kulintangan (xylophone)

Objects of Personal use

äläp (*tobacco container)*

Sudaj (comb)

tukäw
(long-blade knife)

Objects of domestic use

gäntangan *(container for the rice)*

läsung (mortar)

luluag (large cooking spoon)

säsäratan (strainer)

Hunting, trapping and fishing tools

Käraban
(darts' container)

raway o rabay (snare trap for wild chickens)

sjud (scoop-net)

B.3 The Oil Palm Industry in Palawan: a Chronology

Agro-fuels in Palawan, as elsewhere in the Philippines, have been portrayed as a key solution to lower greenhouse gas emissions; achieve energy independence, as well as a tool for poverty eradication (Dalabajan 2009). With these objects in mind, the former Provincial Government of Palawan, as well as the present one, have been strongly supported the oil palm industry.

The Philippine Oil Palm Development Plan for 2004-2010, crafted in 2003 through the leadership of the Philippine Palm Oil Development Council (PPOIC), states that oil palm industry will be able to generate rural employment while ensuring sustainable development. The Philippine Oil Palm Development Plan also states that the area to be converted nationwide for oil palm plantations will only include 'idle' and 'underdeveloped' lands. However, what the plan fails to consider is that most of the so called 'idle' and 'underdeveloped' lands include areas that are utilized by the rural and indigenous populations for different purposes (gathering of NTFPs, medicinal plants, swidden cultivation, etc.). These areas also include rivers and streams providing rural households and indigenous peoples with potable water and fishing grounds.

On 2003, former governor Joel Reyes (now wanted by ICPO - International Criminal Police Organization) invited the Agusan Plantations Group (APG) of Companies and the Philippine Palm Oil Development Council (PPODC) to Palawan. Starting on February of the same year, several visits were carried out to conduct assessments on the potential of Palawan for palm oil plantations. Some of these findings were presented during a forum held at the Palawan State University (PSU), which was attended by government officials, investors and NGOs.

Around October 2004, the Agusan Plantations Group of Companies began intense consultations with local stakeholders at the barangay level, collecting additional information and setting the bases for its future operations. Finally, in barangay Maasin (Municipality of Brooke's Point), the company was able to identify the site for the construction of the oil palm mill, which was donated by the Municipality of Brooke's Point. On January 2004, the Palawan Palm Oil Industry Development Council (PPOIDC) was established through a provincial legislation (Provincial Ordinance No. 739-04).

In Palawan, the main oil palm operations are being run by Palawan Palm & Vegetable Oil Mills Inc. (PPVOMI) and its sister company Agumil Philippines Inc. (AGPI). By December 2005, PPVOMI was organized and registered as a local company and part of the Agusan Plantations Group of Companies. PPVOMI, which is 60 percent Singaporean and 40 percent Filipino-owned sells 100 percent of its production to its sister company Agumil Philippines Inc. (AGPI), which has established and operates an oil mill in barangay Maasin (Municipality of Brooke's Point) for the processing of crude oil palm and palm kernel. It would appear that AGPI, which is 75 percent Filipino-owned and 25 percent Malaysian, undertakes the export of at least 70 percent of its production to Singapore, China and Malaysia. All plantations are managed and owned by individual self-financing growers, cooperative out-growers and PPVOMI. PPVOMI plantations constitute around 25% of the total area planted, while the remaining 75% are plantations belonging to the contract growers of AGPI (the majority of these are cooperatives with very few individuals) (Barraquias 2010).

Official oil palm operations began only in January 2006. The target area for oil palm development spans over the municipalities of Aborlan, Narra, Quezon, Sofronio Española, Brooke's Point, Rizal and Bataraza, most of which are in Southern Palawan.

As of now, most of the resources of oil palm companies have been invested in the construction of a milling plant, in planting and expanding oil palm plantations, and in purchasing heavy equipment needed for their operations. Agumil Philippines, Inc. also rents equipment such as tractors and bulldozers from the CAVDEAL construction company. The ALDAW research team was unable to get precise information on the costs invested in oil palm plantations by other secondary stakeholders such as the Cavite Ideal International Construction and Development Corporation (CAVDEAL). This is a construction firm, now turning into palm oil business and, according to some sources, the company has purchased several hundred hectares of land in the Municipalities of Brookes' Point and Sofronio Española. Also another enterprise owned by a local Chinese businessman has purchased at least 700 hectares in southern Palawan to be developed into oil palm plantations.

The main financing institution for oil palm production in Palawan is the Land Bank of the Philippines (LBP). In principles LBP should commits 80% financial assistance while the remaining 20% becomes the borrower's equity. The anchor firm (the company) shoulders 10% of the equity. The bank requires no collateral but does require original land titles for safekeeping reasons (Barraquias 2010). However, because farmers have often no capital to invest, the Agumil-Philippines, Inc sets up the equity for the cooperatives in order for the LBP to commit to 80% equity. As a result, cooperatives and farmers have now double loans, both from AGPI and from LBP (c.f. Barraquias, 2010 and Larsen at all. 2014).

A triangulation of data from different sources suggests that, as of now, the overall area converted into oil palm plantations in Palawan is of about 6,000 hectares, and probably more. Instead, the area being targeted for oil palm expansion is between 15,000/20,000 ha. It is interesting to note that, according to a study carried out by the Philippine Coconut Authority (PCA) and the Palawan Palm Oil Industry Development Council (PPOIDC), out of the 454,405 ha of agricultural area in Palawan, almost half of it (208,997 ha) is said to be suited for oil palm plantations (Barraquias 2010). The Provincial Government as well, has provided excessive estimates for the land allegedly suited for oil palm expansion. Specifically, it has argued that, in Palawan, at least 80,000 hectares are suitable for oil palm plantations. Interestingly enough, this estimate is four times higher than the nationally allocated target of 20,000 ha (ibid.).

On June 25-26, 2009, the 6th National Palm Oil Congress was held in Puerto Princesa City, Palawan. During the congress, Mr. C.K.Chang of Agumil Phils., Inc. asked the local government to do its part in developing the industry in its province, claiming that what the company really wanted from the Provincial Government was not money but rather the absence of bureaucratic constraints and no 'red tape'.

Five years later from that statement, one may easily conclude that Mr. Chang's request has been completely fulfilled by the Provincial Government, but at the expenses of the environment and of traditional livelihoods. The request of 'no red tape' and 'no bureaucracy' has, in fact, translated into a massive and uncontrolled conversion of

biologically diverse environments into oil palm monocultures. This, in turn, has only benefitted business tycoons and companies rather than local communities.

b.3.1 15 Good points on why oil palm expansion should be stopped

Out of the overall amount of field-data gathered by ALDAW between 2010 and 2013 we have been able to distil at least 15 major points justifying the implementation of a moratorium on oil palm expansion in Palawan. In some municipalities, palm oil development is already competing and taking over cropland and coconut groves which are sustaining local self-sufficiency. The exponential increase of pests (insects and rats), directly associated with oil palm development, features amongst the primary complains raised by both migrant farmers and indigenous peoples. In other municipalities, old and secondary forest has been cleared to make space for plantations, and important water sources have been polluted. Land erosion and flash flood events are on the increase. Overall, in all municipalities, oil palm expansion is taking place at the expenses of local economy and of existing biological diverse vegetation types. As a result, essential resources (NTFPs, medicinal plants, game animals, wild honey, etc.), which are pivotal for daily household survival, have been completely depleted through oil palm development. Ambiguous strategies for taking control of indigenous land through fuzzy rent agreements and illicit sale deeds are common. Low employment rate and unfair working condition in oil palm plantations are not an exception but the norm.

1. Productive Coconuts are dying and 'copra' production is decreasing

According to members of local communities, since oil palms were introduced, new pests began to spread from oil palm plantations into indigenous cultivated fields and coconuts groves. Such pests include the Red Palm Weevil (*Rhynchophorus ferrugineus*) and *Brontispa longissima.* These species, according to local informants, were not present in the area before the establishment of oil palm plantations. The loss of productive coconuts because of pests allegedly spreading from oil palm plantations should be accounted for in terms of thousands of palms being affected. Infestation of *Brontispa longissima* has destroyed 4,000 coconuts in Bataraza around 2009 (Barraquias, 2010). Suede Taiban, a tribal leader in Espanola Municipality claims that, only in Iraray, at least 1,000 coconuts were destroyed because of Red Palm Weevil around 2010 (Barraquias, 2010). In 2009, a local resident in Iraray claimed that she had lost 600 of her 800 productive coconuts and she pleaded the provincial government to declare a state of calamity for all the affected areas (Dalabajan in press). In 2010, members of several indigenous households in Iraray II (Municipality of Espanola) told to a community organizer of ALDAW that their production of copra had dropped of at least 40/50% because of dying coconuts being killed by Red Palm Weevil and other pests. A recent visit by ALDAW staff in Iraray II on August 2014, has revealed a significant decrease in Red Weevil infestation (allegedly due to traps set by company personnel). In turn, according to the same Pälawan informants, infestation of *Brontispa longissima* is rapidly on the increase.

2. Loss of forest and biodiversity

Palawan has one of the last remaining contiguous forest blocks in the Philippines, oil palm plantations are breaking the contiguity between different and interrelated ecosystems,

such as hilly forest, lowland forest, shrub and grassland, wetlands, etc. thus having an impact of animal species that move and thrive in different ecological niches, as well as on the integrity of each specific niche.

Common animals have completely disappeared from oil palm impacted areas and the population of birds has dropped dramatically. Clearing of land for oil palm plantations eradicate native plants and animals from the area. Local biodiversity cannot survive in oil palm plantations.

In several affected areas, there is a remarkable decrease of NTFPs which are essential to the livelihood of the local communities. Medicinal plants, traditionally used for curing common ailments, are no longer found and are now available only in some distant locations.

Field inspections by ALDAW reveal that significant areas covered by primary and secondary forest have been cleared by Agumil Philippines, Inc, CAVDEAL and San Andres to expand their oil palm plantations. This has occurred particularly in the Municipalities of Quezon, Brooke's Point, Rizal, Bataraza and it is confirmed by additional reports based on field inspections carried out by the Community Environmental and Natural Resources Offices (CENROs) in Palawan and further supported by certified maps and GPS data. In one of such reports named "List of Existing Palm Oil Plantations in the Municipality of Quezon and Rizal within the Administrative Jurisdiction of CENRO Quezon", released on November 2013, it clearly appears that oil palm expansion has occupied more than 26 ha of timberland and almost 9 ha within the Mount Mantalinghaan Protected Landscape (MMPL). Moreover, the report shows that 150 ha (existing and proposed) are in CADT land. On the 23rd of January 2014, ALDAW community organizers accompanied the personnel of CENRO Brooke's Point headed by Forester Franklin M. Aquino, Forest Ranger Bernami M. Manunggay and Admin Aid Herman A.Paraiso to an area of virgin forest being clear-cut allegedly by Agumil oil palm company and San Andres. On that occasion, massive forest conversion for oil palm development was documented in sitio Song-Song, Barangay Culandanum; Sitio Pasi-Pasi, Sitio Barak-Barakan and Sitio Luzviminda of Barangay Sandoval (see copies of original documents at the end of this report).

Agumil claims that it has been given ECCs from DENR to occupy portions of forest land. Such statements have no legal bases. In fact, Environmental Compliance Certificates (ECCs) are documents proving that a developer has met environmental standards and stipulates the conditions that it must comply with. ECCs have been issued by DENR despite the fact that the proper procedures were not observed and without any technical report submitted by Agumil and PPVOMI showing that environmental standards would be met. Interestingly enough, according to a Memorandum of Agreement between PCSD and the Department of Environment and Natural Resources (DENR) signed on December 29 1994, the latter shall not issue an Environmental Compliance Certificate (ECC) without the project promoter having secured a SEP clearance first (cf. Larsen at all 2014). However, evidences indicate that DENR did in fact issue several ECCs to PPVOMI prior to SEP clearances. The latter, instead, were never secured by PPVOMI except for a SEP clearance issued for its nursery and oil mill area (about 13 hectares only).

Surprisingly, there are no SEP clearances released for the remaining thousands of hectares being converted into oil palm plantations (around 6,000 ha until present time). In so doing, both PCSD and the DENR Environmental Bureau have overstepped the bounds of the law that they mandate to uphold placing Palawan natural and cultural heritage at great risk. Moreover, Agumil and PPVOMI have never received from DENR 'tree cutting permits' and, therefore, they have violated Revised Forestry Code P.D.705 of 1987, and other existing DENR laws.

Cavite Ideal International Construction and Development Corporation (CAVDEAL) has also engaged in oil palm expansion over an area of at least 500 hectares that was cleared in Bgy. Calasaguen (Brooke's Point Municipality). As far as we know, CAVDEAL and San Andres operations are being carried out without ECC and SEP clearance.

3. Loss of agricultural land and diversity of cultivated plants

What the Government defines as 'idle' and 'abandoned' lands suitable for oil palm expansion, include indigenous agricultural fields under fallow periods, as well as other areas used by local communities for the collection of minor forest products, medicinal plants, etc. The conversion of productive agricultural land into oil palm plantations has taken place in various municipalities. Oil palm plantations have also expanded in areas used by local IPs for the cultivation of local varieties of upland rice, root crops and fruit trees. This has greatly affected the diversity of traditional cultivars while making local communities even more dependent on purchased food. Oil palm plantations have a significant impact on genetic erosion of both cultivated and wild plants.

4. Limitation of free movement

The fencing of large areas of oil palm plantations particularly in Bgy Maasin and Calasaguen (Brookes Point Municipality) makes it difficult for local communities to reach their upland fields and forest. Often they are forced to take alternative and longer routes to avoid the oil companies' 'no trespassing' zones.

5. Decreasing food-self sufficiency and increasing malnutrition

Locally important non-timber forest products (NTFPs): leaves of palms (*buri*), bamboos and other fibers used by the local IPs for making mats (*banig*), house walls (*sawali*) and other hand-woven products are fast disappearing in oil palm affected municipalities or are found much further from peoples' settlements. More land conversion into oil palm plantations will lead to decreasing household food self-sufficiency and increasing malnutrition. Sofronio Española Municipality provides a clear example of this. It has the highest percentage of land (over 45%) covered by oil palm plantations and yet, according to the provincial nutrition office, this municipality is still being hit by a high rate of malnutrition.

6. Severance of flash floods events

The effect of floods has worsened proportionally to the expansion of oil palm plantations. This is due to the fact that soils where oil palms are planted is becoming harder and thus

less penetrable to water and also because trees at the edge of rivers have been cut and, according to local communities, this has increased the risk of flash-floods.

7. Progressive depletion of plantation soils

Agumil Philippines Inc and PPVOMI will only return the management of the project to the growers upon the expiration of the term of the so called Management Services Agreements (about 30 years). By this time, the land converted into oil palms is likely to have been rendered infertile by the continuous use of chemicals and depletion of nutrients. Hence, the restoration of such lands into productive cropland may result into an impossible task, especially for small landholders lacking financial capital. In the future, progressive reduction of agricultural productivity and decreasing land fertility might lead to higher rates of migration from impacted rural areas to urban centers.

8. Risk of pollution of river sources

Based on empirical records, for a ton of oil processed, about 2.5 tons of effluents will be discharged (Barraquias 2010). So far oil mill discharges are deposited by Agumil and PPVOMI in a large open-air basin and there is a risk of contamination of local water sources and rivers. Agumil and PPVOMI should clarify how mill wastes are treated and disposed and additional investigation on this should be carried out by PCSD and the Multipartite Monitoring Team (MMT).

9. Excessive use of water resources

Oil palm plantations have a huge impact on water resources availability. For instance, in Brooke's Point Municipality, Agumil Philippines Inc. has requested a water permit for an amount of 7.69 liter/second to be pumped from the Kelebengag river, in Bgy Calasaguen. This is quite significant if one considers that, for instance, according to section 22 of the Philippine Water Code *"…water permits for irrigation use shall be granted on the basis of not exceeding 1.5 liters per second per hectare of land to be irrigated".* In short, 6.97 liters/second of water means 418.2 liters/minute. This is a huge amount of water not only in terms of quantity but also in terms of equivalent monetary value.

The *Sangguniang Bayan* (Municipal Government) of Brooke's Point is trying to push for a water project to benefit its own constituents. When this project will be fully implemented, citizens will be charged a fee of PHP 2.00/container. This raises the question of why free water-privileges should be given to oil palm corporations while citizens must continue to pay for their water consumption.

10. Questionable and illegitimate land-appropriation practices

Indigenous people have leased their land to oil palm enterprises for prizes as low as PHP 500/year per hectares. In several instances, community people who have rented their land to oil palm companies are still waiting to receive the corresponding payment. Overall, there is a scarcity of public records showing the processes and procedures leading to land leases and land sales. Several IPs families have sold their land for prices as low as PHP 1,000/ha. Such lands, however, in spite of being occupied by local indigenous people since time immemorial, lack of titles or other tenurial instruments. The legality related to

the appropriation of such lands by oil palm enterprises need to be challenged. Oil palm companies have resorted to rather illegal stratagems in order to penetrate IPs ancestral lands. In several cases, according to indigenous informants, they received by local government agencies only partial and untrue information about the companies' plans and targets. At the start, lacking this information, several communities did not oppose oil palm plantations.

It would appear that DENR has facilitated the processing of tenurial instruments needed by oil palm projects in areas already covered by Community Based Forest Management Agreements (CBFMA). This issue requires further investigation.

11. Land speculation by non-Palawaños investors

In some cases the involvement of outsider investors limits the possibility of local farmers to benefit of oil palm development. Wealthy individuals and groups from outside Palawan are behind oil palm development in the province. These investors have established so-called cooperatives and are holding lands in the names of local individuals and groups. These 'corporate co-ops' may avail of financing from the Land Bank that should be used, instead, to enhance the financial and operating capacities of small farmers. CAVDEAL construction company is behind the new Evergreen Growers Cooperative in Iraray II that, according to local informants, covers about 80 hectares of purchased land (cf. Neame and Villarante 2013).

12. Encroachment of oil palm plantations into ancestral domains without FPIC from the indigenous communities

The encroachment of oil palm plantations into indigenous peoples' ancestral lands/domains, without their Free and Prior Informed Consent (FPIC) represents a gross violation of Section 59 of the Indigenous Peoples Right Act (R.A. 8371). Particularly, in Bgy. Tagusao (Municipality of Quezon), oil palm plantations were able to expand into the ancestral domain of the IPs without securing FPIC from the communities and by clear-cutting the forest on which local IPs depended for their livelihood and daily needs. In a letter dated 15 August 2013 (see documents at the end of this report), Mr. Dominador Opra, NCIP focal person in Palawan, wrote to the Manager of the Agumil, to request the said company to comply with Section 59 Certificate of Precondition of the Indigenous Peoples Rights Act 8371 and to coordinate with NCIP Palawan Office. To this date, it would appear that Agumil has ignored NCIP request and the latter, in turn, has made no attempt to follow up.

13. Low employment rates and unfair working conditions

In the year 2009, in the Municipality of Española (Barangay Iraray), a 150 ha oil palm plantation could provide employment to about 25 community members on part-time basis. This gives an employment estimate that is six fold lower compared to that proposed by the Philippine Coconut Authority (PCA) (e.g. one worker per hectare) (see Dalabajan in press). Since 2009, employment rates do not seem to have registered an increase.

Working conditions in oil palm plantations are generally exploitative. According to local people, a day absence from work due to personal reasons (e.g. sickness) may result in the

suspension of the employee from work for a period of three days. Similarly, If a worker is victim of an accident in the performance of his duties, the company will assume no responsibly for such occurrences and no benefit or any form of insurance will be provided.

Until recently, wages received by oil palm workers were below the Philippines' minimum wage, which is PHP178 in the MIMAROPA Region. It would appear that wages have now increased to PHP210 daily. On the other hand, workers complain about delayed payment and unfair computation of working days. Due to delays in salary payments, most workers enter a credit system, known as *bunggo.* They can loan goods from the company's and cooperatives stores ending up paying 10% to 15% more than the regular prize of such goods. By the time they receive their salaries, most of it is gone to the payment of the *bunggo* (cf. Neame and Villarante 2013).

14. Lack of maps for oil palm plantations

Oil palm expansion and massive land conversion is taking place with no monitoring by the concerned authorities. In the absence of existing maps it is impossible for the government to systematically determine the ownership, elevation, land classification, etc. of the area in which oil palms are being planted.

15. Violation of International Conventions and Declarations

The endorsement of oil palm plantations in areas that have been managed and conserved by indigenous peoples since time immemorial contradicts declarations and conventions that the Philippine Government has ratified such as 1) The Convention on Biological Diversity (CBD), 2) The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 3) The Convention concerning the Protection of the World Cultural and Natural Heritage and, 4) the Convention for the Safeguarding of the Intangible Cultural Heritage.

b.3.2 Oil Palm Plantations Versus Traditional Agriculture

According to Dalabajan (2009), an area of 150 has. planted with wet rice brings livelihood to about 150 families while, in comparison, an oil palm plantation of the equivalent size could hardly provide the same level of food security.

Perhaps, it is still too early to come up with a reliable comparison between household food security which could be achieved though oil palm plantations and the level of food security achieved through indigenous upland/lowland farming. On the other hand, there are clear evidences indicating that, due to a number of concurrent factors (loss of land and resources coupled by limited part-time employment), oil palm plantations are, in fact, exacerbating rural poverty.

There have been various studies in Palawan (Cadeliña 1985, MacDermot 2000, Novellino 2007, in press b) providing indications on the productivity of indigenous upland fields. In the early eighties, Cadeliña with reference to the Batak, an ethnic group living in central/northern Municipalities of Palawan, claim that a well-maintained upland field of about one hectare can produce a yield level that is comparable to that proposed in the green revolution with its high technological input requirements (1985: 125). Cadeliña estimated that a one-hectare Batak swidden, under various levels of maintenance, produces around 3,900 kilograms of husked rice. A field with excellent maintenance (weeds completely removed) produces almost 5,000 kilograms, while a moderately maintained one (between 30 to 50 percent of the field weeded) produces around 4,000 kilograms. A very poorly maintained field (below 30 percent of the field weeded) makes around 2,000 kilograms.

Cadeliña's estimates do not necessarily apply to contemporary Pälawan lowland swiddens, many of which are found on lands that have already been deforested and that are being subject to short-fallow periods. In fact, amongst the lowland Pälawan, the loss of traditional territories due to logging, landless migrants, etc. has shrunken the available farming area, as a result fallow period have decreased (cf. Macdonald 2007). However, land fertility varies from areas to areas and, generally, those Pälawan communities living close to the forest such as in Pulot II (Municipality of Espanola) and Tagusao (Municipality of Quezon) might have enjoyed more generous harvests until recently, if compared to their Pälawan neighbors living closer to the national road, and in more densely populated areas.

However, even if we consider a less favorable scenario, where an hectare of upland rice produces only 615 kg of seeds, equivalent to a 18-fold increase over the seed planted (See McDermot 2000: 367), this amount would still support a family of 4 people for a period of about 8 month. This tentative estimate does not account for additional energy intake provided by other food-plants intercropped with rice or planted after rice harvest.

Before detailed comparative studies are carried out, the general take of this report is that if lowland Pälawan communities would be allowed to cultivate their land, as they have done for centuries, they would be much better off in terms of food self-sufficiency and diversity of diet in comparison to what oil palm plantations can offer them in terms of employment opportunities and other means.

C. RESEARCH AREAS AND SPECIFIC FINDINGS

C.1. The Municipality of Sofronio Española

According to the 2010 census, Sofronio Española has a population of 29,997 people. It is the province's newest municipality officially established on June 5 1995, through Republic Act No. 7679 from land that was formerly a part of Brooke's Point. It was named after former Congressman Sofronio Española.

This Municipality has the highest percentage of land covered by oil palm plantations and provides the bulk of oil palm kernels for the mill. The rest of the production comes from the Municipalities of Aborlan, Quezon, Brooke's Point and Bataraza.

Oil palm plantations cover most of Barangay Iraray land proper. According to our informants, in its early days, the company purchased 150 ha of land located along the national highway and rented from the local inhabitants another 300 ha stretching towards Pulot Interior. Our preliminary data indicates that, in Barangay Iraray II alone, 220 ha of land have been sold to the oil palm companies by Filipino Christians and Muslim, as well as by few indigenous families, while another 47 ha have been leased to companies by members of local cooperatives.
Before and until the 1960's most of this land was customarily utilized by Pälawan communities for their swiddens, for the gathering of NTFPs such as bamboos, *buri* palms (*Coripha elata*) and for gathering housing material, etc. With the arrival of migrants from other provinces, the government began to carry out cadastral surveys. While most migrants applied for titles for the land they had occupied, the original inhabitants became marginalized through the process. Mainly this is because they were unaware of the procedures that they had to follow in order to gain legal recognition over their customary lands. Outsiders, especially Muslims from neighboring island provinces, after acquiring titles and planting coconuts on the land previously occupied by indigenous peoples, left the area and returned only sporadically to check their properties which they ultimately sold to the oil palm companies.

The oil palm companies (particularly Agumil Philippines, Inc) have purchased most of their plantation lands from non-indigenous farmers who had previously occupied and got possession of IPs land, also through fraudulent practices. Several members of the local Pälawan indigenous communities have leased their land to Agumil Philippines, Inc. for prizes as low as 500 PHP/year (about USD 12.5). These rates are far below the standard prize that the company should pay for yearly rent.

In the Municipality of Española, Agumil's strategies for expanding its plantations include the regrouping of different parcels of land under Certificate of Land Ownership Award (CLOA). At the present, members of the local indigenous communities are also complaining about a construction company, the Cavite Ideal International Construction and Development Corporation (CAVDEAL) which provides Agumil with heavy equipment for land clearing. Unexpectedly, CAVDEAL has turned into a land grabber and it is now acquiring land for oil palm conversion.

Because of the advance of oil palm plantations, local communities are losing control over their land and resources. This trend is the same for all affected barangay such as Bgy. Iraray, Bgy. Punang, Bgy. Pulot-II, Bgy. Isumbo, Pulot center and Bgy. Pulot, located both in the interior and coastal areas. The overlapping of oil palm plantations with the indigenous ancestral land/domain is particularly evident in By. Pulot II where oil palm development further impinges on indigenous burial and hunting-gathering grounds. Some of these indigenous communities, such as those of sitios Marebong and Pasi (Barangay Pulot), are now squeezed between the mining tenements of Citinickel in the uplands and the oil palm plantations in the lowlands. As a result they are becoming increasingly poor and malnourished.

Due to oil palm expansion, common animals such as the barred button-quail (*Turnix suscitator fasciata*) and porcupine (*Thecurus pumilusi*) have completely disappeared from the impacted areas.

Pälawan man making *'sawali'*

Also key NTFPs (palm leaves, bamboos and other fibers) used by the local IPs for making mats (*banig*), bamboo woven bundles (*sawali*) and other woven products have disappeared or are found far away from the communities' settlements. *Banig* and *sawali* are sold to the local market and do represent an essential source of income for hundreds of families. Additional conversion of land into oil palm plantations will surely lead to the complete collapse of the local household-based economy.

Community members also claim that certain medicinal plants traditionally used for curing common ailments are no longer found in their areas, and they are now forced to purchase medicines from the outside.

Other informants report that flash floods have increased proportionally to the expansion of oil palm plantations. According to them, this is due to the root system of the oil palms and the close distance between planted specimens (i.e. density), making the soil particularly compact and thus less penetrable to water. Indigenous people claim that around 2009/2010 a 'new' pest has spread from the

neighboring palm oil plantations to their cultivated fields devouring hundreds of coconut palms by boring large networks of tiny tunnels into the palms' trunks.
This insect has been identified by ALDAW staff as the Red Palm Weevil (*Rhynchophorus ferrugineus*). Because of this and other pests, coconuts production, in selected locations, seems to have dropped to 50%. It is important to note that *Rhynchophorus ferrugineus* also feeds on other Philippine palms such as *Areca catechu* (betel nut palm), *A. pinnata* (sugar palm), *Calamus merrillii* (rattan), *Caryota cumingii* (fishtail palm), *Corypha elata (buri), Metroxylon sagu* (sago palm), *Oncosperma horrida*, *Oncosperma tigillarium* (nibong palm) as well on sugar cane (*Saccharum officinarum*). The elimination of other palm species, due to the expansion of oil palm plantations, has caused – as a result – an intensification of Red Weevil attacks on cultivated palms (*Cocos nucifera*).

Pälawan IPs also express complains about the increasing of the Asiatic rhinoceros beetle or coconut rhinoceros beetle, (*Oryctes rhinoceros*). This is a species of rhinoceros beetle belonging to the Scarabaeidae family. *O. rhinoceros* attacks the developing fronds of coconut, oil, and other palms. Damaged fronds show typical triangular cuts. The beetle kills the palms (particularly newly planted ones) when the growing point is destroyed during feeding. The larvae do not damage crops, but instead grow in dead, decaying trunks and other organic matter. According to local informants, this species has massively moved to their coconuts plantations, after wild palms such *buri* palms (*Corypha elata*) were destroyed during land conversation by oil palm companies.

In 2008 Apollo M. Diao, an agriculturist based in Palawan, has reported severe rhinoceros beetle infestation of coconuts in Brgy. Iraray. In the same locality, he reported that some 7,000 oil palm seedlings were damaged by rhinoceros beetles.

Another complaint is related to the alarming increase of rat population in people's agricultural fields and, again, according to local IPs, this is due to the fact that traditional living grounds of these animals (*buri* palms and bamboo groves) have been converted into oil palm plantations, forcing rats and insects to move massively into locally-managed community lands. Indigenous informants interviewed in the Municipality of Española say that pests from oil palm plantations have moved into their coconuts groves because the latter are not treated with pesticides thus providing a 'safer ground' for the survival and reproduction of these animals.

Nowadays, members of indigenous households in Española feel that it is unfair on the part of the government to charge them with real estate taxes for lands that they can no longer

put into production due to the continuous attacks of pests. According to them taxes should be lifted for those land properties that are heavily affected by pests' infestations.

C.1.1 'Sitio' Marebong and Pasi, Barangay Pulot: general environmental features

Sitio Marebong and Pasi are located in Brgy Pulot Interior in the Municipality of Sofronio Española. Both communities are surrounded by forested hills and, some of these, have already been encroached by mining activities carried out by the Citinickel corporation
Patches of cleared forestland can be spotted around the villages. These are planted with rice, maize, root crops, and banana.

The landscape around sitio Marebong

Other areas in the hillsides are under fallow period ranging between 6 to 8 years. The presence of bamboo groves can also be noted with *bungbung* representing the dominant species. Some flat areas, at the bases of the forested hills, are planted with wet-rice, the presence of coconut palms is negligible.

C.1.2 Population

The overall population in Barangay Pulot consists of about 2,000 individuals. About 300 indigenous people are directly affected by oil palm development and mining extraction in the communities of Marebong, Pasi, Pangatban. There are also four families of Filipino migrants, originally from Mindanao, Iloilo and Negros, living in the area (Lenita Nangcod personal communication).

The indigenous people in the area rely mainly on subsistence upland farming, while only migrants are engaged in wet rice farming. Some IP households are also engaged in the making of woven artifacts for commercial purposes, such as *banig* (mats), *nigu* (flat-winnowed trays) and *sawali (*bamboo woven bundles for walling). Aside from the harvesting of fibers used in weaving, which are collected in the vicinity of their settlements, the people harvest wild-honey and sell it locally. Few are also involved in small-scale gold panning. Gathering of wild greens and the harvest of so called 'palm's cabbage' (*ubud*) from various palm species takes place all year around, while collection of mushrooms is particularly abundant between August and September.

Some non-indigenous families own general-merchandize shops (*tinda*). They are also engaged in the planting of wet-rice and, occasionally, practice upland farming.

C.1.3 Artifacts' production and use of plants

In Pulot the four dominant types of baskets are *balikbalik*, used to contain fish, the roughly made *raga* generally used for carrying vegetables and crops, the *ambong* for carrying rice and crops, the flexible *bayong* of wild pandan used as a rice container. Only women are involved in basket weaving and we have been informed that each woman may produce up to 10 baskets within a month.

balikbalik

raga

bayung

ambong

tadtad/saksak

Up to 300 pieces of split bamboo sections used for walling (*tadtad* or *saksak*) can be produced by a household member in one day. These are sold at a prize of about 50.00 pesos for 100 pieces in the local barangay market. Generally, all family members are involved in the production of *tadtad*, even children from 10 years above.

Nigu (flat winnowed trays) are sold for a prize between 75.00 to 100.00 pesos each in the local market. Women are in charge of weaving *nigu* while men collect the needed raw material. We have been informed that a household could produce up to three *nigu* in one

month. Mainly pregnant women and/or mothers with infants are engaged in the weaving of this item, which provides them with an extra source of income.

Belinda Biena and her daughter Mystika making banig mats. See also nigu in the forefront

C.1.4 Livelihood activities and concerns

Honey from *putiukan* bees (probably *Apis dorsata*, and other species) and *nigwan* bees (probably *Apis florea* or *Apis indica*) was collected seasonally, especially between March and June. Honey was sold for 300 pesos per gallon in the weekly market (*tabuan*) and local shops. Alternatively, one gallon of honey was also exchanged for a *salop* (approx. 2.5 kgs) of rice.

Presently, the people complain about the loss of honey production, and swarms of bees moving elsewhere due to the great amount of dust being produced by Citinickel operations. The dust covers even the tree canopy with a layer of red soil. Another reason for the disappearance of bees is attributed to the conversion of natural vegetation into oil palms estates and to the use of chemicals in plantations, to which bees are particularly sensitive.

The huge amount of dust produced by Citinickel operations covers the surrounding forest

In addition to this, the people claim that the little honey left in the area has an unusual reddish color (allegedly due to mining dust) and it is not suited for consumption. The people is now forced to go much further from their settlements to look for honey, this is why the prize of wild honey has increased to about 700 pesos per gallon.

Kenisio Malasan holding a blowpipe

Daily sources of proteins traditionally obtained through trapping (e.g. using *rabay* and other snare traps) and through hunting (e.g. using blowpipe and own made muzzle-guns) have also become scarce because of the combined impact of oil palm plantations and mining. According to the people, at least 8 species of once fairly common birds: *kiyaw* (talking myna), *abukay* (white cockatoo), *kalaw* (hornbill), *labuyo* (wild chicken), *tabon, balud* (green imperial pigeon), *picoy* (blue-naped parrot) and Palawan peacock pheasant can now be spotted only very rarely and/or have completely disappeared from the areas being impacted by mining activities. The same applies to two reptiles: *bayawak* (monitor lizard) and *sawa* (python), and to 9 species of mammals:

(porcupine), *balintong* (pangolin), *amu* (macaque), *pantot* (stink badger), *bising* (tree squirrel), *manturon* (bear cat), *baboy damo* (wild pig) and *dugong* (lamantin) on the coastal areas. Similarly, the areas converted into oil palm plantations have see the disappearance of species that, in the past, were commonly spotted by the people such as *pugo* (quail), *mantod, bayawak, balintong, durian, baboy damo.* According to the people, oil palm development has also caused the disappearance of large trees such as *Apitong baboy* (Dipterocarpus sp.) and bamboo groves which provided shelters to wild species.

Community members also complain about the loss of fresh water resources and fish species such (*papait, kasili, pantat, dalag, lugusan, karapay*), shells (*susu*) and shrimps (*udang*). These species were commonly trapped with fish traps (*bubu*), hocks and line and with plant-based fish poison. Today people claim that river sources have become polluted because of siltation from mining sites and the dust which deposits on the water, as well as because of chemicals used by oil palm plantations along riverbanks. They say that fish has developed certain diseases (as 'cuts on the body' and discoloration) or have died altogether. Today only small specimens can be spotted in the river, and there is no use in catching them because of their very small size. The loss of medicinal plants in the area surrounding people's settlements is a major issue for the local communities. Our informants speak passionately about the importance of medicinal plants and their dramatic decline *"It is like we are dying little by little because we no longer have the plants needed to cure ourselves*" says Panglima Kenisio Malasan. According to Jomel Asdari *"before we walked half hour only to get the raw material for building our houses, for our artifacts and for collecting medicinal plants. Now we must walk half day, to the other side of the mountain, before we can find the things we need".*

Paplina Setya showing her baskets

Also massive migration of landless Filipinos into indigenous territories is blamed as one of the factors leading to the depletion of local resources, including medicinal plants. *"Before there were no other people or companies in the places where we gathered medicinal plants, now such places have become contaminated"* claims Mingrin Sewan. Environmental contamination is further attributed to mining: *"because of the great amount of dust caused by mining operations, we always suffer of cough, running noses and often feel pain in the chest"* (Paplina Setya).

"Despite oil palm and mining operations we will not give up the use of traditional medicines. Although we must travel far away to get them, these plants are still the only remedy we have for curing ourselves" (Panglima Lonisio Aplino). Yet there is a deep concern on whether the coming generations will be able to recognize and use medicinal plants: *"We are afraid that the traditional knowledge of medicinal plants will not be passed to the next generation, also because these plants are now located very far from our settlements and it is difficult to bring the children with us when we look for them. Before, children were following the elders during the collection of medicinal plants and they were instructed on how to collect and use them. Now our children cannot identify these medicinal plants, because they haven't had a chance of seeing them"* (Nestor Aplaon).

Agumil Oil Palm expansion on indigenous land in Marebong

The settlement of Marebong surrounded by oil palms

Oil palms replacing riparian vegetation along riverbeds in Marebong area

Indigenous swidden in Marebong overlooking Citinickel siltation ponds

C.1.5 Local knowledge and plant-related beliefs

The lack of shamans (*belyan*) in these communities and neighboring areas signals the progressive decline of traditional cultural practices and rituals. Community members told us that, in the past, both men and women played the role of shaman. Unfortunately, their knowledge died with them, since it was not passed to members of the younger generation, nor the latter was interested to learn. As a result, the transmission of shamanic knowledge has been interrupted.

Nevertheless knowledge and beliefs associated to the use of plants have not been lost. Numerous plants are still used by local communities for curing and other purposes (see table no.1). Specific rules exist about the use and collection of medicinal plants. For instance, our informants told us that it is prohibited to gather medicinal plants during noontime. Instead, such plants should be gathered around 6 o'clock in the morning and after 5 o'clock in the afternoon. In fact, local people believes that if such plans are collected around noontime, also the life of the patient to whom these plants are administrated (e.g. in the form of infusion, cataplasm, etc.) will shorten.

Similarly, the smoking of the 'sacred' *pärinaq* (*Kingiodendron alternifolium*) resin used during rituals and prayers should take place when there is no wind, to make sure that smoke will reach the benevolent deities (*diwata*) whose assistance is being sought. On the contrary if the smoke is dispersed by the wind, it will not reach the *diwata* and the ritual will not succeed.

It would appear that there is a certain level of specialization also in the collection of plants. There are ritual plants like *maranggawiri* that can only be collected by female shamans. The use of certain plants for generic uses [e.g. *balasbas* (*Licuala spinosa*)] is open to all but if the same plant is used for ritual purposes (e.g. *turon* trance dance), then, it should be collected only by male shamans.

The harvesting of edible material from certain plants, such as the extraction of sago from *bätbat* (*Arenga undulatifolia*) is believed to be more productive if it takes place on new moon days.

The legend (*tuturan*) of 'Bätbat and Tubu'

Long time ago, there was a pair of lovers named Omawey (woman) and Kanakan (man). During that time, it was easy to get juice from sugar canes (tubu). One had only to cut them and the juice would easily come out and be ready for collection. When Kanakan cut the *bätbat* palm, the starch would automatically come out and be ready for cooking. But one day, Omawey thought of stealing a rice ear from the house of a rich man named Surutan. Then she cut a *bätbat* palm which was planted by Kanakan and put the rice ear on it. Since then, Kanakan's life became so miserable. From that moment on, he had to pound and soak in water the starch of *bätbat* for two consecutive days before he could finally eat it. Because of this, Kanakan got upset with Omawey, and decided to separate from her. He took the rice ear and placed it inside a split sugar cane. From that day on, also the life of Omawey became so miserable and now she had to put much effort in chewing sugar canes before she could swallow the inner juice. However, because of the difficulties faced in surviving and processing food, Omawey and Kanakan finally decided to get married and help each other for life.

C.2 The Municipality of Rizal

Rizal is a 2nd class municipality in the province of Palawan. According to the 2000 census, it had a population of 31,745 people divided in 6,916 households. Rizal was formerly Barrio Tarampitao Point of Quezon. It became a separate municipality called Marcos on April 1983 by virtue of Batas Pambansa No. 386. On April 1988, it was renamed after national hero Jose P. Rizal by virtue of Republic Act No. 6652.

Sitio Salungsong (Barangay Iraan) is located in the said municipality. Here indigenous agricultural fields are well developed with a combination of banana, sweet potatoes and other root crops. However, part of this land supporting local self-sufficiency, has been grabbed by Filipino migrants who arrived in huge numbers around the year 1999/2000 after the completion of the National Road connecting the north to the south of Palawan and now encircling the whole province's main island. These migrants are now leasing what was once indigenous land to oil palm plantations. Significant portions of indigenous sustainably managed land (consisting of a mixture of root crops, coconuts, banana and fruit trees) have already been converted into palm oil plantations. Overall, it would appear that, since 2005, a total area of about 1,000 hectares has been transformed into oil palm monocultures and 300 hectares of this have been developed in Barangay Iraan alone and, specifically, in Sitio Salungsong, where large forest trees are still found. Here oil palm plantations have expanded close to clean water sources which are essential for the daily needs of local communities.

According to Jun Ali (chairman of the Salam cooperative) interviewed by the ALDAW staff, the expansion of oil palms into the local IPs managed Community Based Forest Management Agreement (CBFM) area has been possible through an agreement entered between the DENR and the cooperative. As a result, the pre-existing CBFM area was changed into a PACBARMA (Protected Area Community-Based Resources Management Agreement) thus allowing the planting of oil palms within its perimeter. A PACBARMA is a tenurial instrument awarded to local communities, including people's organizations, whose members are qualified tenured migrants and interested indigenous people who opt to participate in community-based projects within protected areas covered by the National Integrated Protected Areas System (NIPAS) act. The agreement also provides for the participation of the PACBARMA holders in decision-making processes dealing with the development of the area, with the allocation of resources, etc. Recently, Agumil Philippines, Inc. has interrupted collaboration with Salam cooperative because of high operational costs needed for transporting oil palm produces. The Salam plantation, in fact, is located too far from the main road. It is not yet clear what will happen

to the existing plantation since the local cooperative has no resources to shoulder the costs needed for transporting their produces to the processing plant.

It must be pointed out that oil palm development is not supported by the Mantalingahan Protected Landscape (MMPL), which was established through Presidential Proclamation no. 1815, and which will not allow further oil palm expansion within its perimeter. Overall, the rest of the oil palm expansion in Barangay Iraan has taken place on alienable and disposable land, which – nevertheless – includes areas that have been customarily used by the local Pälawan communities.

Interviews to indigenous members of oil palm impacted communities in Iraan contradict the explanations provided by government officials. For instance, some of the IPs interviewed during the ALDAW mission claim that they were forced to vacated an area of about 1,300 hectares within their CBFM area when they were told that this was part of the alienable and disposable land which the government had already set aside for oil palm plantations. This information was, of course, untrue. They were also told by non-indigenous persons that any action on their part to stop oil palm plantations would have represented a violation of state laws. The local IPs, because of fear, finally decided to vacate the area which had been developed by them with fruit trees and various crops and where a forest tree nursery had been established.

Other local IPs, interviewed during the ALDAW mission, believe that their signatures had been forged and illegally used as a proof of their consensus in favor of oil palm plantations This is to say that the certification of precondition given by the NCIP to the local cooperative for expanding oil palm plantations into the IPs managed CBFMA area was not obtained through transparent FPIC procedures. According to NCIP officials, in this particular case, there is no evidence of illegal procedures since the indigenous community itself (the holder of the CBFMA) consensually submitted an application for oil palm development into their CBFMA area, and this is why no FPIC process was required.

Clearly as it appears, in Rizal Municipality there have been severe violations of indigenous peoples' rights in connection with oil palm expansion. This includes the preparation of fake documents allegedly authorizing the oil palm company to enter the area. According to some local informants, former Mayor Samson de Gilio fraudulently used the attendance sheets signed by indigenous representatives during government consultations, as proofs of community acceptance of oil palm development. In spite of this, the impacted Pälawan communities have decided not to bring their complaints to the attention of government since, as the ALDAW team was told, they were afraid of possible retaliation on the part of the Muslims members of the

cooperative who had entered into private deals with DENR personnel. In addition to this, the affected Pälawan are unaware of the legal procedures that they should follow in order to file a formal complaint against the Salam cooperative and against those government officials who have been involved in fraudulent practices.

C.2.1. Sitio Bintatkaris, Salungsong, Kabongbongan, Barangay Iraan: general environmental features

The area occupied by these communities is located on hilly land, with different slope degrees. The settlements are surrounded by secondary and primary forest with patches of fallow land under different stages of regeneration and some areas are planted with crops (upland rice, etc.). Banana and fruit trees groves, especially those planted with durian, are common in the area. There is no *basakan* (irrigated rice cultivation) except in few suitable locations at the bottom of hills.

C.2.2 Population

According to our community organizers who visited this location, the total population in the area consists of about 1,000 people out of which about 40% are indigenous Pälawan, 30% are Filipino Muslims and another 30% are Cebuano and Ilongo coming from the provinces of Negros.

C.2.3 Artifacts production and use of plants

The most common baskets made in the area are *balatak*, *tabig* and *basag* and these are produced for domestic uses only and not for the market. Only handicrafts such a *nigu* (flat winnowed trays), pandan mats (*banig*) and rattan mats (*biday*) are sold occasionally. Numerous plant species are used for the production of material objects employed in agriculture, hunting-gathering, music, house building, etc (see table no.1).

C.2.4. Livelihood activities and concerns

The local indigenous Pälawan are mainly devoted to traditional farming with upland rice and root crops representing their main staples. They continue to diversify their orchards with different species of fruit trees. Only migrants practice wet rice cultivation and plant vegetables for the market. Those IP community members who have lost their land due to oil palm plantations work occasionally in the rice fields owned by migrants. Both IPs and migrants engage in the production of copra. The planting of rubber trees, either supported by private investors or by individual families, is also taking place in the area.
The sudden increase of migrant population has led to competition over the use of natural resources. Wild greens were traditionally abundant and collected on daily bases by men, women and children. Today, instead, people complain about the scarcity of wild food due to over-exploitation.

People also claim that, due to the establishment of oil palm plantations, the material used in making basketry and other local items (as well as medicinal plants) are now hard to find. People have to walk at least 1/2 hour in order to be able to assess such resources. Yet community members claim that they have not abandoned their knowledge of medicinal plants, because this is the only thing on which they can rely in moments of need. However, nowadays, there are many useful plants that young people cannot recognize. This implies that there is a degree of knowledge loss due to the fact that certain plant species have become rare, and can only be gathered in distant locations.

Occasionally, people also produces *banig* and *biday* for the local market and collects and sells wild honey on seasonal bases. Finely made rattan mats (*biday*) are made by men and sold for about 500.00 pesos each. We were told that it takes about one month for an individual to produce a single piece of biday. Pandan mats (*banig*) made by women, and having a length of about 2.5 meters, are sold for about 300.00 pesos each. It takes about one week for a single individual to produce one *banig* mat. *Banig* mats are also sold in the local market (*tabuan*). Also winnowed trays (*nigu*) are occasionally produced for the local market by both men and women and sold for an amount of 50.00 pesos each. According to local informants, it takes about 2 days for an individual to accomplish the making of one *nigu*.

Honey from both *putiukan* and *nigwuan* bees is collected seasonally. This is sold or bartered in exchange for rice. Informants claim that from a single bee hive up to 2 gallons of honey can be obtained. The gathering of beehives is risky and requires considerable skill. The basic equipment consists of a rope, a smoking torch of *äga äga* (*Artocarpus* sp.) bark or other material, and a 'bush-knight' (*tukaw*). The gatherer climbs the vines encircling the trunk, until he reaches the canopy. If trees are very tall and have a large diameter, the people may build an aerial rattan 'bridge' made of a single rattan pole (generally of *Calamus subinermis* H.A. Wendl. Ex. Becc. and *Calamus merillii* Becc.), linking the forest ground to the canopy. The bees are driven away by smoking the nest. Then the hive is cut, wrapped in leaves, placed in a container, and lowered down with a

rope. In the process, the nests are completely destroyed (Novellino 2001a).

Various species of animals were traditionally trapped and hunted, providing a steady source of proteins. However, the number of these species has decreased constantly over the years and some of them have completely disappeared. Such species include: macaque monkey, wild pig, pangolin, tree squirrel (both red and black species), flying squirrel, monitor lizard, python, dugong (lamantin) in the coastal areas, and birds such as green imperial pigeon, blue-naped parrot, talking myna, quail, agay, kalit. Aside from meat, species such as wild pig and monitor lizard also provided the skin for the drums (*gimbal*).

In the course of our interviews, the people named at least 20 fresh-water species, which, until recently, featured as a frequent food in their daily diet. Such species include various fish species (*silwang, pait, ulpis, lugusan, balanak, kasili, dalag, kawate, bela'h, baribe, tu'long, karepay*), crustaceans such as *udang* (shrimp) and different types of shells. The people attribute the dramatic decline of such resources to the activities of oil palm companies and to the chemicals used in plantations. Local informants claim that they are now forced to walk at least one hour upriver to collect mollusks, crustaceans and fish.

C.2.5 Local knowledge and plants-related beliefs

Presently, there is still a shaman (*belyan*) performing curing rituals. According to our informants both women and man can become shamans, although only men are in charge of ritual singing and the collection of medicinal plants.

The planting, gathering and use of plants are still regulated by particular prohibitions and beliefs. Generally, only men gather herbal medicines. It is also prohibited, for instance, to pick/gather medicinal plants under sunshine. Over-heat is believed to reduce the efficacy of such plants. For best results, medicinal plants should be collected early in the morning or in the afternoon after sunset.

The planting of fruit bearing trees must be done during new moon, and this is believed to increase production. Similarly, this applies also to the gathering of sago starch from *bätbat* (*Arenga undulatifolia*). Our informants told us that it is not advisable to plant a tree or root crop after full moon, because it will die.

Food prohibitions related to plants are also common. Most of such prohibitions draw on the analogy between plants' behaviors and the characteristics of the disease affecting the patient (see Novellino 1999c). For instance patients affected by skin eruptions and open ulcers should avoid all food that "opens up". This is because a homology is drawn

between the natural opening of boils and the opening of gems, maize cobs and pods. This is to say that the condition of a patient affected by skin ulcer will deteriorate if he eats any food that originates from something that "opens up". Therefore, maize seeds and edible gems (e.g. bamboo shoots) may be interdicted to people suffering from skin eruptions and related pathologies. Generally, Pälawan are concerned about the adverse implications that analogical resemblance between animal/plant characteristics, diseases and body states might have on their health and well being (cf. Novellino 1999c).

The legend (tuturan) of the *bätbat* palm

Long time ago, there was a man and a woman who lived a simple life inside the forest. One day they saw two grasshoppers one on top of the other, like they were holding on each other. So, they tried to imitate the behavior of grasshoppers and, as a result, they had many children. So, *Lali* (a powerful superhuman being) got angry and cursed them to suffer in life. From that moment on, life became difficult and people began to exert considerable physical effort in searching for food and in extracting starch from *bätbat* palms.

Pälawan myths related to the extraction of palm starch offer important insights into peoples' worldview (Novellino 1999d, 2001). The short tales (*tuturan*) collected in Rizal and Española during the ALDAW research reflect a popular aspect of Pälawan epic which traces the existence of *bätbat* to a mythical golden age when food was abundant, and the people did not experience starvation and sickness. The myths also describe how an unreasonable and sinful human act changed the course of human destiny (cf. Macdonald 1979, 1988, Novellino 1999d, 2001, Revel 1990). Similar myths, collected from other areas in Southern Palawan (Macdonald 1979, Novellino 1999d), also narrate how, after the illicit cutting of the legendary *bätbat*, humans were deprived of the privilege of being immortal which was previously granted by deities to those who climbed this palm up to the upper layers of the universe. According to Pälawan mythology, the separation of the human race from benevolent deities marks the beginning of an age of scarcity and also condemns the people to share the forest domain with malevolent creatures such as *säjtan* and *länggam,* who are responsible for human sickness and death (Macdonald 1979, 1988, Novellino 1999b, 2001).

C.3 Methodology and summary of key research findings

In the context of this research, Pälawan technology, people's production of artifacts and uses of plants have proven to be useful indicators for evaluating and better understanding the impact of oil palm plantations on people's daily life. In this report, the term 'technology' refers mainly to "the number and kinds of tools a society uses – together with the knowledge about how to make and use them" (Haviland 1996: 194).

Some of the research findings have been arranged in thematic ethnobotanical tables making reference to hunting and fishing tools, musical instruments, farming implements, housework tools, therapeutic/ritual uses, etc. Botanical species have been identified according to their vernacular and scientific names. However the latter have been substituted by an identification code, for the purpose of not publically disclosing the plant species used by Pälawan, particularly those employed for therapeutic and ritual purposes.

Scientific identification has taken placed by comparing photographs of local plants taken in the field with drawing or images found in botanical volumes. In addition to this, further identification has also taken place by comparing the vernacular names of Pälawan plants recorded in the field with the list of local names listed in Madulid's, *Dictionary of Philippine Plant Names* (2001), as well with a similar list found in Nicole Revel's volume *Fleurs de Paroles Histoire Naturelle Palawan* (1990).

Research data collected by Lenita Nangcod (ALDAW Community Organizer) suggests that the disappearance of useful plant species, due to oil palm expansion, is extremely alarming. Ms. Nangcod's interviews to local informants from selected IPs communities in Rizal indicate that numerous species (see table 1) have already disappeared from the areas being impacted by oil palm plantations while others have been subject to dramatic decline. Her interviews to local community members reveals that about **5** species have registered an overall drop of **60% to 70%,** while another **22** species have registered a drop between **70% and 80%**. Out of the overall amount of species that cannot longer be found in the proximity of people's settlements, **32** of them are plants for medicinal and ritual uses, **27** of them are plants used for making artifacts, objects of daily use as well as for house material, **13** are palms having multiple uses and **7** of them are rattan palms, **4** are useful bamboo species. Another **9** species (no longer found) were used as fish poison, while **3** species provided the poison for the blowpipe darts and **15** are plants used as food/condiment. Instead, the species which, according to local informants, have dropped between **60% to 70%** include **1** medicinal plant, **2** species used for the construction of objects and house material, **1** species used both as fish poison and in rituals, and **1** edible specie. Species that have registered an overall drop between **70% and 80%** include **9** species used for the construction of material objects, **8** species used for medicinal/ritual purposes, **2** edible species, **1** species used for both artifacts making and medicine, **1** species used for the construction of objects, as well as an ingredient for betel chewing. Ms. Nangcod's indications on the percentages of plants' decline must be regarded as tentative estimates. These figures – in fact - have been obtained by cross-checking the responses of selected informants to a pre-prepared questionnaire and are not based on mathematical/statistical computations.

As it is indicated further in this study, the most common plant species used in basketry have almost or completely disappeared in those areas being directly impacted by oil palm development (see table no. 1). This entails that important fiber plants are no longer available in those areas where they were customarily collected. In such areas, useful plant species have been either exhausted and/or highly depleted and, now, people must walk several hours or even half day to be able to locate and harvest them. Overall, if massive land conversion for oil palm plantations will be allowed to continue, this may cause additional exhaustion of those plant material and fiber plants which are essential to sustain people's cultural practices, artistic expressions and daily needs. It must be specified that table 1 provides only a selection of plants used by the Pälawan of 4 communities located in two different barangay and, thus, it does not exhaust Pälawan ethnobotanical knowledge.

For the purpose of this report, previous research data on plants' uses collected by Dott. Dario Novellino in the early nineties has been double checked with new information gathered by Ms. Nangcod in selected Pälawan communities[8]. Most of the species listed in tables no.1 and no. 2 are found in lowland and medium altitude locations, which coincide exactly with the areas where oil palm expansion is likely to take place. The species listed in **table no.2**, include the vernacular names of **150** useful plant species, belonging to at least **35** plant families. Out of these, **66** local species have been scientifically identified, while for **31** plant names only the genera is known. Overall, the number of unidentified plants amounts to **54** species and only the family name of **11** of them is known.

With reference to the making of artifacts, it must be emphasized that Pälawan produce some of the finest baskets made in the Philippines. There is great variation in size, shape, and types of weave (see Novellino 2007a, 2007b, 2009a). Open baskets (*bäka*), baskets with lid (*tinkäp*) and for rice storing (*gäntangan*) are strengthened at the four corners and have a base supported by crossed rods. Other baskets for rice (*bäjung*) are rather flexible and expandable. Flat winnowing tray (*nigu*) are made of Dinochloa sp. and *Donax cannaeformis*. A wide range of rattan species is also used in basketry such as *Calamus javensis; Calamus caesius, Calamus subinermis*, as well as bamboo (mainly *Schizostachyum sp*.) The bark of different species such as *lindägung* (*Trema orientalis*) *bälinad* (*Sterculia sp*.) and *säjapuq*, (*Trichospermum sp*.) provides the material for the basket straps (see Novellino 2007a, 2007b).

Commentaries by local indigenous informants suggest that the progressive decline of fiber material due to oil palm expansion does have an impact on the actual production of woven crafts, as well on the overall stock of knowledge associated with basketry, which include, amongst others: **1)** knowledge of basket uses; **2)** knowledge of designs, which may embody an understanding of their meanings; **3)** knowledge of the fibers-providing plants, their morphology, location and availability in the surrounding environment; **4)** knowledge of fiber preparation (splitting, cleaning, darkening, bending etc.) (see Novellino 2009a).

Discussions with our indigenous collaborators further indicate that the loss of plant species used in the production of artifacts will not only affect Pälawan artwork and the transmission of basketry/carving skills but the whole cultural complex associated with it. For instance, Pälawan zoomorphic and anthropomorphic carvings are both artistic expressions as well functional tools for carrying out specific ritual offerings (*ungsud*). The carving of the wild pig (*biek*) is traditionally used for hunting rituals. Traditionally, prior to the hunt or after a wild pig was killed, the hunter would make a request to the Master of pigs, *Ämpuq ät bjäk,* asking to be forgiven for having killed or for intending to hunt a wild pig (Novellino 1999b). One of the key moments in the hunter's request to the Master of game animals was a sort of 'exchange' known as '*ungsud*' or '*sambi*' (a term which implies an action of giving and receiving). A wooden carving, representing the species that the hunter desired to catch was 'exchanged' for the real animal (Novellino 1995-1996, Novellino 1999b). This practice still survives amongst some Pälawan groups of the uplands but has largely being lost amongst the Pälawan of the lowlands, although skill mastery needed for the production of certain items still persists[9].

Our research findings also indicate that the a differentiation must be made between the loss of plant material/artifacts induced by land conversion for oil palm plantations, and the loss of traditional items that have disappeared long before oil palm plantations were established in Palawan. For instance, this is the case of *säpukan* (blowpipe) which is

made of two bamboo tubes of a small diameter enclosed in a larger diameter bamboo [*Schizostachyum lumampao* (Blco.) Merr.)] (cf. Macdonald 1977). The darts having an approximate length of 30 centimeters are balanced by a cone-shaped head made from the main veining of the *bätbat* (*Arenga undulatifolia* Becc.) and *busniq* (*Arenga brevipes* Becc.) leaves (Novellino 1995-1996). At least eight vegetable species are employed in the making of the dards' poison: five of them are trees: *sumandar, uläs, kämändäg, rinsab* (*Alstonia scholaris* (L.) R. Brown), and *sälugän* (*Antiaris toxicaria* Lesch.); two are vines – *lupas* and *ditaq tigbung* while *bigaq badjang* is a species of the genus Alocasia (Novellino 1995-1996).

Today, blowpipe-related plant knowledge and technology is still being held by some Pälawan communities of the uplands but has been largely lost amongst the Pälawan of the lowlands. However, some members of the more acculturated Pälawan communities, such as those inhabiting the Municipalities of Sofronio Española and Rizal, do keep blowpipes in their houses, either as a sort of family heirloom or as a tool for hunting small preys, although very occasionally. Nowadays, the holders of blowpipes amongst lowland Pälawan communities are very few, and their production of hunting gears (e.g. *käraban* – the blowpipe darts' container) cannot be compared (in terms of artistic beauty) to the equivalent items which are finely made by the Pälawan of the hinterlands. The level of artistic skill and carving precision displayed in the objects made by the Pälawan of the uplands stands as an indicator of their higher level of cultural integrity. Nowadays, few Pälawan of the lowlands still engage in the construction of traditional artifacts with the same level of attentiveness, care and precisions that is displayed, instead, by the Pälawan of the remote hinterlands. The photographs of traditional artifacts, displayed in section b.2.5 of this report, provide clear evidence of the skillful work of which the Pälawan of the uplands are capable of.

Interviews carried out during the ALDAW field appraisals, confirm the findings of previous studies emphasizing the important role of palms in the context of Pälawan household food security (see Novellino 1999d). Palms, in fact, yield multiple types of products and provide both food and cash income. Amongst the communities where the ALDAW investigation has taken place, wild palms are still exploited for their edible cabbage (the tender meristematic region found in the growing tip and enclosed by leaf bases). Calamus spp. and Daemonorops spp. yield very little, but Arenga spp. and Oncosperma spp. might provide buds up to two-three kilograms. Raw palm buds are crispy and have a light taste; they are often boiled and served as a side-dish to main staples (e.g rice, cassava). Certain palms such as *bätuq (Caryota mitis)*, *bätbat (Arenga undulatifolia)*, *busniq (Arenga brevipes)* and *nangäq* have been traditionally exploited for their edible starch (Novellino 1999a, Novellino 1999d, 2010). Collection of palm buds, commonly used as vegetable, is not seasonal, and takes place all year around, especially when no other side-dish is available.

It would appear that, in recent years, the role of palm food in Pälawan diet has somehow decreased. However, there are indications that palm foods still play an important role in the face of dramatic changes that people is experiencing (e.g. increasing crops' failure due to attack of pests and unpredictable weather patterns) (see Novellino 1999). For instance during previous El Niño events, several Pälawan communities in Rizal Municipality have

been able to counter famine and crop failures through increasing collection of starch from both wild and cultivated species (Novellino 1999, 1999d). It is likely that the dramatic reduction of starch palms caused by oil palm expansion will further deprive Pälawan communities of an important emergency food (palm starch), thus leaving them with no food alternative during periods of food shortage and crops' failure. The dramatic reduction of wild palms due to oil palm expansion also entails that Pälawan consumption of so called 'palm cabbage', locally known as *säpwa* or *bänkäs,* as well as the consumption of palm starch (*natäk*), will continue to decline.

D. FINAL REFLECTIONS AND CONCLUSIONS

During the past 50 years, Pälawan communities, and particularly the Pälawan of the lowlands, have lost access to very important food zones such as marine shores, coral reefs, and mangrove forest. Pälawan have abandoned some of these traditional foraging zones when migrants began to settle in the coastal areas. After the completion of the circumferential road in the year 2000, thousands of new settlers have entered the indigenous land, pushing the people further and further into the interior. As a result, this has affected the integrity of areas that had been sustainably managed and conserved by indigenous peoples over long periods of time[10]. Nowadays, because of these events which have led to the transformation of people's traditional 'subsistence' and mobility patterns, Pälawan are experiencing reduced diversity of diet, and widespread malnutrition.

Especially the Pälawan of the lowlands have become increasingly dependent on purchased rice, while traditional consumption of cultivated root crops (cassava, sweet potato, colocasia and dioscorea species) is of a lesser significance today than it was in the past. Sometimes rice is consumed plain, and even the use of wild greens is often insufficient to provide adequate nutrition. In addition to this, amongst the most acculturated communities, imported foods such as tinned sardines, and baked goods (biscuits, bread, cakes) have affected Pälawan preference for traditional food (cf. Novellino 1999a).

Today, low energy intake and low protein-energy ration, in addition to the lack of vitamin A, are major problems shared by the Pälawan, as well by the rest of the indigenous population province-wide. Overall, there is a nutritional imbalance in favor of carbohydrates with relatively little of the other nutrients. The overall quantity of food consumed is often insufficient, especially during the hungry months. The scarce intake of meat, poultry, fish and vitamin C-A rich foods limits the absorption of iron. Iron deficiency, low intake of minerals and riboflavin appear to be widespread in Pälawan indigenous communities, and it is generally chronic throughout South East Asia (cf. Novellino 1999a).

Given the low dietary regime that many lowland Pälawan experience, one can easily predict how the removal of natural vegetation, as well as of indigenous agricultural improvements by oil palm plantations is likely to cause the total collapse of people's traditional livelihood, thus fostering communities' impoverishment and increasing malnutrition.

Nowadays, in Palawan, one major problem faced by local 'activists' has to do with the fact that oil palm development continues to be supported by the present provincial government, as it was supported before by previous administration. As a result, no attempts have been made on the part of government agencies or departments to challenge the decisions made at the level of the *Sangguniang Panlalawigan* (Provincial Government). In addition to this, it must be pointed out that Governor Alvarez himself (a well-known promoter of agribusiness and member of the same family which logged Northern Palawan forest in the eighties) is chairing the Palawan Council for Sustainable Development (PCSD). This government agency, in principles, should ensure the sustainable future of the province but, in reality, is playing a rather passive and uncritical role in relation to oil palm development. Sadly, PCSD has allowed the expansion of oil palm plantations in the absence of SEP (Strategic Environmental Plan) clearances. This is just an example to say that the short-sighted approach of the local political class continues to represent a major hindrance to the protection of Palawan environment and to the safeguard of rural and indigenous communities.

In addition to existing oil palm companies such as Agumil, Philippines Inc, PPVOMI and San Andres, Palawan continues to attract more agribusiness firms. One particular corporation, the so called "Green Power Palawan" (GPP) is a Palawan-based company and one of its directors, Eric Yayen, is a prominent businessman and the owner of the Kainato restaurant chain, as well as the Vice-President of the Palawan Chamber of Commerce. GPP has gone so far to promise indigenous communities financial and technical assistance for the demarcation and recognition of their ancestral domains. Of course these promises (which would never be fulfilled) are given for the purpose of getting people's consensus to the development of large-scale plantations on their lands. GPP is looking for large tracts of land and they know that the only people who can provide these are, in fact, the indigenous peoples. Not surprisingly, in its own website GPP states that one of its key objectives is "to develop ancestral lands through long-term agreements". Unofficial sources reveal that GPP works like a sort of middleman: they try to negotiate agreements directly with ancestral land holders and eventually they invite venture groups to occupy and develop these lands with monocultures such as oil palm, rubber, cacao, etc.

While Palawan is becoming the 'last frontier' of agribusiness expansion, the Philippine environmental movement, as of now, has been unable to come up with joint and coordinate actions to counter the emerging oil palm industry. Indeed, the boom of oil palm development is a huge issue, and the possibility that our country will become one of the key exporters of oil palm kernels and palm oil in Southeast Asia (after Malaysia and Indonesia) is not so remote. In fact, recently, Mr. Paye (Undersecretary of the Department of Environment and Natural Resources – DENR) has announced the possible conversion of 8 million hectares of Philippine soil into oil palm plantations. But again, civil society's response to Paye's proposal and to the booming of oil palm industry continues to be weak. In turn, indigenous peoples and marginal farmers, through their direct engagement, are gaining, day by day, an in-depth understanding of the impact of palm oil plantations on their life. The magnitude of the problem is such, and the forces behind it so powerful, that local communities are encountering serious difficulties in contrasting corporations without the support and mobilization of NGOs and civil society at large.

The weak response of Philippine civil society and of the national environmental movement to oil palm threats might be attributed to various and, often, interrelated factors (see below).

Luck of information and/or misguiding information

In the Philippines, differently from Malaysia and Indonesia, information on the social impact and environmental hazards of oil palm development is limited and fragmented, thus it is difficult to gain an overall picture of the state of oil palm development nationwide.
Falsely, palm oil development has been presented by its proponents as a strategy for increasing domestic production of edible oil, which will ultimately benefit Filipino consumers. This somehow, has contributed to give a 'benevolent' outlook to oil palm industry.

Government reports on oil palm projects and plans are either one-sided (presenting the positive features and obscuring the negative impact). Some of these documents are for internal uses only and, hence, are not circulated publically. The paucity and little availability of information have prevented NGOs and, civil society at large, to address the oil palm issue with the urgency that it requires.

False perceptions

Amongst some sectors of the Philippine civil society a perception exists that biofuels and oil-producing palms could represent a concrete response to global climate change, a way for abating greenhouse gases as a well an alternative to polluting oil-based fuels. Furthermore the idea that degraded areas colonized by grass such as *cogun* (*Imperata cylindrica*) - or used by indigenous people for their slash-and-burn practices - will be colonized, instead, by 'ever-green' landscapes made of oil palms, might have favorably captured the imagination of those environmentalists advocating for tree planting and against the use of fire in agriculture.

Government propaganda

The government propaganda according to which oil palm plantations will be established only on unproductive and abandoned lands might have also contributed to reassure civil society on the risk of deforestation. In reality, what the government calls 'idle' and 'unproductive' lands consist, instead, of large areas used by indigenous communities since time immemorial, for swidden cultivation, collection of NTFPs, and other customary practices.

The narratives of conservationism discourse

The fact that oil palm plantations have expanded also at the expenses of secondary forest has not made environmentalists particularly alarmed since, in the narratives of conservationism discourse what really deserves full protection is primary forest while the combination of secondary forests with other post-fallow vegetation types is somehow perceived as less valuable (in terms of biological diversity). It must be pointed out that post extraction secondary forests constitute a substantial proportion (83%) of all forests in the Philippines and they have become most vulnerable to conversion or degradation due

to their proximity to local communities (Lasco, Visco & Pulhin, 2001). This type of forest merits conservation as well, since it can achieve the same level of diversity as primary forests in Southeast Asia (Luna et al., 1999).

False perceptions about indigenous traditional farming practices

Philippine civil society at large, as well as Government representatives, is often unaware of the significant difference between slash and burn technology used by indigenous people and the very destructive slash and burn practices carried out by landless Filipino migrants. By and large, the idea of converting forest land into swiddens, independently of who is doing it (indigenous or non-indigenous) is antagonized and disliked by large sectors of the Filipino society and by the majority of environmentalists/conservationists (Novellino 2000, 2000a, 2007). Therefore, the idea that particular areas, rather than being subject to slash and burn farming regimes, will be converted into 'evergreen' oil palm plantations might have been perceived by some as a beneficial contribution towards environmental sustainability, as well as a permanent solution to the use of fire in land clearing, which contributes to CO2 emission in the atmosphere.

Insufficient collaboration between NGOs

The practice of noninterference amongst Filipino NGOs is generally respected, and no one tends to interfere with what another group is doing. However, on several occasions this practice has also led to the inability of sharing important lessons-learned and working together on key advocacy issues. Paradoxically, in some instances, the NGOs have replicated the same system of the government whereby little communication goes back and forth between various departments and, as a result, programs and laws are often conflicting and overlapping. When NGOs do not communicate sufficiently with each other or, in some cases, do not work jointly on potential solutions, then it is also unlikely that indigenous communities (which these NGOs directly or indirectly claim to support) will be able to establish a meaningful partnership amongst themselves on critical issues such large-scale plantations and oil palm development.

Lack of a long-term agenda

Organizations dealing with environmental and human rights issues, often, do not have a long-term advocacy/campaign work-plan. Many Filipino NGOs and also some indigenous federations rather than being "vision and processes-oriented" (long-term approach) are becoming "projects-based" (short-term approach). In short, rather than sticking to a long-term plan of action, they become implementers of projects whose priorities are mostly dictated by donors (REDD-Plus strategies, reforestation projects, etc.) and, thus, do not originate from the local communities themselves. In several cases, the presence of NGOs amongst local communities depends on the duration of a given project. When project funds are exhausted the NGO vacates the area. As a result, at the end of the project, local communities lose contact with their NGO partners. Instead, the relationship between a NGO and its field partners (especially in moments of needs, e.g. encroachment of corporations, etc.) should be a long term one, even when there is no project ongoing and no money fuelled to sustain such relationship. As of now, with respect to oil palm development in the Philippines, no long-term advocacy/campaign and/or a common plan of action has been drafted and agreed upon by the concerned NGOs.

No steady and continuous paralegal assistance to local communities

Often a simple event, occurring at a particular time, can dictate the future of a community and sometimes even its physical and cultural annihilation. In the majority of cases, when corporations enter indigenous territories, communities are unable to deal with these forces that are extremely powerful and invasive. Often, indigenous communities, due to the lack of background knowledge, tend to believe in the corporations' promises of a prosperous future (e.g. free medical assistance, livelihood project, free housing, etc) and they end up signing what they should have never signed and that will ultimately lead to their social collapse and loss of livelihood. If these communities, during crucial moments, had people from NGOs and human rights organizations assisting them in taking informed decisions, perhaps thousands of hectares of indigenous land would have been spared from devastation by oil palm plantations and other large-scale monocultures (as well as by mining firms).

Some of the largest Filipino NGOs which manifest (very rightly) their disgust through media and press releases, about the brutal killing of IPs activists, often do not have a single member of their staff assigned to the impacted areas and, only rarely, they work hand in hand with these vulnerable communities facing constant threats. The Bla'an people of Cotabato who have declared a 'tribal war' against mining corporations, the Manobo and Higaonon leaders of Bukidnon, Agusan and other provinces, who are losing their life in the attempt of saving their land, and the hundreds of martyrs who have died for noble causes, represent the very people incarnating the Civil Society's hope for social change and justice. And yet they receive little support from the NGOs circle, especially at the national level. It would be desirable that the largest Manila-based NGOs, as well as those dislocated in the various provinces, would initiate a process whereby funding from abroad is primarily requested for the purpose of strengthening locally grounded advocacy efforts and for empowering vulnerable communities and their brave indigenous representatives.

Again, in order to achieve massive empowerment at the local level, qualified Community Organizers and Paralegals are needed, this also means that NGOs should maximize their efforts in training more human resources to be dislocated in oil palm/mining impacted areas, and in other contested locations, in order to be able to extend adequate assistance to local communities at the time when important decisions need to be made, (e.g. whether to accept or reject a given corporation). The presence of well trained COs/paralegals appointed to critical areas, would also prevent unscrupulous officials from NCIP (National Commission on Indigenous Peoples) to involve impacted communities in questionable and not-genuine FPIC procedures.

Too many international 'events' and too little actions at the community level

It is now a common practice amongst international financing institutions, such as those of the UN Circle, to invite indigenous persons from Philippines and other countries to attend meetings, conferences and workshops in European or in other foreign locations. In these international fora, indigenous community members (e.g. an everyday IP from an impacted community) could hardly mobilize his/her own knowledge and experience. This is because his/her claims and aspirations could not be easily translated into the language in which

western discourses on ‘environment’, ‘sustainability’, ‘identity’ and ‘science’ are framed. In short, these international and very expensive gatherings represent an inadequate platform for the most disadvantaged and disempowered indigenous people to speak out their voice and discuss their priorities.

It is not surprising that the majority of indigenous representatives from Philippines and other countries, who frequently participate in these international meetings, are generally educated persons (in the sense of having a formal education); they have also acquired an international reputation and a legal personality. However, the knowledge and experience that these IPs spokespersons have gained at the international level is seldom transferred at the field level and shared with the very people who are facing the threats posed by agribusiness and mining corporations.

Some of these well-known, international indigenous representatives, often speak good English and are well educated, and that’s why the international agencies chose them as their ‘indigenous’ counterparts. In comparison, the voices of the indigenous people from the impacted communities are rarely heard. Overall, it would appear that little communication goes back and forth between the IPs attending international gatherings and the IPs living in their own communities, often in remote locations. Hence, a gap exists between international-based debates on IP’s rights, oil palm development, agribusiness, etc. and what actually happens in the field.

The raise of extra-judicial killings of indigenous leaders and activists in the Philippines (also with reference to oil palm expansion), the increasing tension between so called ‘pro-mining’ and ‘anti-mining’ groups, the fact that corporations, through the connivance of NCIP officials, still obtain FPIC following unfair procedures, the simple fact that many IPs are entering into questionable agreements with oil palm and agribusiness firms, signing papers which they do not understand; all of this stands as a clear evidences that NOGs and civil society institutions have not yet succeeded in empowering the masses and in building community consensus around crucial issues such as oil palm development and mining.

Financial support and human resources to sustain locally grounded advocacy efforts are badly needed. On the other hand, NGOs and other institutions should start economizing on the organization of conferences, seminars, congresses and similar events held in capital cities (Manila, Cebu, etc.) and which seldom lead to concrete and tangible outcomes for the local farmers and indigenous peoples. Perhaps, national NGOs and, as well as indigenous peoples federations, should become more vocal in dictating these priorities to donors and ask for a relocation of funds to respond urgently and more concretely to the needs of the victims of mining and large-scale plantations.

It would be desirable if NGOs and POs engaged nation-wide in advocacy and lobbying for indigenous peoples’ rights, environmental protection and against large-scale plantations would start exchanging their individual strategies and campaign advocacy plans with one another in order to come up with a sort of agreed advocacy ‘master plan’ which should set the targets, key strategies and approaches to best pressure the national government, specific corporations, the Land Bank of the Philippines, etc. against massive oil palm expansion. This agenda should also influence the agenda of donors.

Surely the struggle to save Palawan (as many other biodiversity hot spots in our country) has not only to do with saving trees and rare species. More importantly, it is about nourishing the Filipino cultural heritage, so powerfully represented by those indigenous communities that, after resisting Spanish and American invaders, are now countering new forms of 'neo-colonialism' being imposed on them through mining and agribusiness industries.

The ongoing anti-oil palm advocacy launched by ALDAW, while emphasizing the importance of biodiversity and rural livelihood, it also fosters respect and appreciation for the culture of those indigenous societies that are being hit by oil palm expansion and mining. This objective, in fact, has been the main stimulus behind the production of this report. Changing the dominant colonial mentality depicting the 'katutubo' as primitive and uncivilized people in need of being mainstreamed into the urban society, remains for all of us a fundamental challenge. In fact, one of our desirable aims is to make all Filipinos aware of the fact that the last remaining biodiversity hot spots in the country (e.g. Palawan) completely overlap with the indigenous community conserved areas (ICCAs) and territories. This implies that if these areas are still beautiful and 'green'5y7f (as they are), this is exactly because the indigenous peoples (the 'katutubo') have maintained them in a sustainable state, over thousands of years. We should enlighten and inspire the new generations of Filipinos to understand the inner reasons behind forest protection. Forests, in fact, are not only places inhabited by rare species, but they are actually the 'cradle' of indigenous cultures, from which all Filipinos have originated. Until this simple concept is understood, forest will continue to be regarded as the 'place of nature' separated from 'culture'.

To conclude, environmental plundering by oil palm companies is not only a crime against nature but it is also a crime against culture, a sort of genocide that annihilates the most profound roots of the Filipino's history and ultimately plunders the cultural heritage of the whole nation. The beauty of Filipino people (its cultural diversity expressed through the multitude of ethno-linguistic groups) and the magnificence of the Philippine environment are two sides of the same coin which are deeply linked to one another; they are indivisible. The struggle against oil palm expansion (and large-scale monocultures in general) is a must and should be taken on board seriously by each Filipino organization/institution that has placed environmental protection and the safeguard of biocultural diversity at the top of its agenda.

E. ANNEXES

Annex no.1 POLICY RECCOMENDATIONS

ALDAW field findings suggest that if oil palm expansion continues to push through this will surely cause irreversible changes to Palawan biocultural diversity and to indigenous people's and community conserved territories and areas (ICCAs), which include sacred and worship sites occupying a special position in people's cosmology and worldview. Furthermore, with the conversion of more ancestral lands into oil palm plantations, the resource-base on which many Pälawan indigenous communities depend for their survival, including water sources and NTFPs, will become depleted to an unprecedented level. The destruction of these areas by oil palm operations has already infringed the following rights under the IPRA law:

a) Rights of Ownership – "The right to claim ownership over lands, bodies of water traditionally and actually occupied by ICCs/IPs, sacred places, traditional hunting and fishing grounds, and all improvements made by them at any time within the domains;" (Chapter III, Sec. 7, item a)

b) Rights to Religious, Cultural Sites and Ceremonies - which includes "the right to maintain, protect and have access to their religious and cultural sites" (Chapter VI, Section 33).

c) Right to Develop Lands and Natural Resources - "Subject to Section 56 hereof, right to develop, control and use lands and territories traditionally occupied, owned, or used; to manage and conserve natural resources within the territories and uphold the responsibilities for future generations; to benefit and share the profits from allocation and utilization of the natural resources found therein; the right to negotiate the terms and conditions for the exploitation of natural resources in the areas for the purpose of ensuring ecological, environmental protection and the conservation measures, pursuant to national and customary laws; the right to an informed and intelligent participation in the formulation and implementation of any project, government or private, that will affect or impact upon the ancestral domains and to receive just and fair compensation for any damages which they sustain as a result of the project; and the right to effective measures by the government to prevent any interfere with, alienation and encroachment upon these rights"; (Chapter III, Sec. 7, item b).

In consideration of the fact that such rights have already been bluntly violated, and that no NCIP Certificate of Pre-Condition (PC) has been obtained by Agumil Philippines, Inc., by its sister company the Palawan Palm Oil & Vegetable Oil Mill, Inc (PPOVOMI), and by other agribusiness enterprises, **the National Commission on Indigenous Peoples (NCIP)** should then act promptly and uncompromisingly to file a case against such companies before its Regional Hearing Office (RHO). This is not a matter to be further postponed since the Palawan Provincial Office of NCIP has already ascertained that oil palm plantations overlap with the ancestral domain of Tagbanua and Pälawan tribes in at least 16 barangay belonging to five municipalities (see documents below).

In line with its mission to preserve, develop and promote Philippine arts and the richness of indigenous cultures, **the National Commission for Culture and Arts (NCCA)** should take appropriate actions to safeguard Pälawan knowledge system, peoples' livelihood and cultural expressions which are now under threat due to the conversion of indigenous ancestral lands into of oil palm plantations. This is in line with **Republic Act No. 10066 (March 26, 2010),** *[National Cultural Heritage Act of 2009],* Providing for the Protection and Conservation of the National Cultural Heritage, as well with NCCA functions as mandated by RA No. 7356. Such functions, amongst others, include the regulation of "activities inimical to the preservation/conservation of national cultural heritage/properties" and the investigation of "such inimical activities in conjunction with the proper government agencies, such as the Department of Interior and Local Government, the National Historical Institute, the National Museum and other such agencies, with the aim of prosecuting such activities and recommending other actions such as legislation, executive issuances and other appropriate actions".

As of now, **PCSD, DENR, PCA** and **DAR** do not appear to possess any map of oil palm plantations in Palawan. There is no evidence that any social, cultural, economic or environmental baseline study or impact assessment has been undertaken by such agencies before or since the establishment of plantations. The fact that such documents are nowhere to be found raises the question of the legality and status of oil palm plantations in Palawan. Undoubtedly, in the absence of accurate feasibility studies and not knowing the unintended consequences of oil palm expansion, both environmental sustainability and local livelihoods are being put at serious risk. The concerned government agencies, as well as oil palm companies should produce, as soon as possible, reliable maps showing the exact locations of planned oil palm expansion, as well as the areas already been converted into oil palm plantations.
With reference to oil palm expansion, the **PCSD** should ascertain for itself the social acceptability of and environmental damage caused by such operations. Specifically it should respond immediately to the complains of oil palm impacted communities that were documented by PCSD staff during an appraisal mission facilitated by ALDAW and which took place in 6 southern municipalities between 16-19 November 2013. The outcomes of this appraisal should be made public and be circulated amongst NGOs and the concerned government agencies.

DENR and **PCSD** should ensure the removal of oil palms planted by Agumil Philippines, Inc. in illegally cleared forest, and the reforestation of depleted areas areas with endemic species. Soil erosion control measures should be implemented with haste along deforested riverbanks. Specifically **DENR-EMB** should take immediate actions to respond to the ocular inspection of the 1st Multipartite Monitoring Team (MMT) that took place in the Municipality of Quezon between 12-14 November 2013. Some of these findings indicate that **1)** Agumil and some of its cooperative out-growers have expanded their plantations without SEP clearance and outside of the ECC area, this is with particular reference to the following areas: Berong, Malatgao, Alfonso XIII, Tabon, Maasin and Kalatabak; **2)** Agumil has cleared virgin forest to the extent of completely eradicating large trees and riparian vegetation along the Liambungan River in Berong. Moreover, illegal road construction by Agumil, along the Liambungan riverbanks, has accelerated soil erosion. DENR should proceed immediately to charge Agumil for the cutting of timber in natural and residual

forest, since this is in violation of Executive Order 23, S 2011; **3)** oil palms in Berong have also been planted in cleared second-growth vegetation inside the CADT land of the local Tagbanua communities of Berong; **4)** Agumil was unable to provide the MMT with: **a)** maps of the areas planted with oil palms*;* **b)** an Environmental Impact Assessment for that planted areas; **c)** a Self Monitoring Report (SMR); **d)** the Compliance Monitoring Report (CMR); **e)** the Environmental Management Plan (EMP). Agumil failed to present the above mentioned documentation to the MMT. The environmental impact statement/study (EIS) was submitted at a later stage, but was regarded by the MMT as incomplete and not updated. Agumil should be made accountable for failing to submit the required documentation.

The provincial government, through its Provincial Cooperative Development Office (PCDO), and in collaboration with the Cooperative Development Authority office in Puerto Princesa City and the Department of Agrarian Reform (DAR), should reassess the contracts that have been entered between Agumil and local farmers-cooperatives and suggest suitable ways for rectifying them. The people, in fact, have entered into memorandum of agreements with Agumil which were written in English and which they could not understand. A cursory look at the so called **Production Technical Marketing Agreement (PTMA)** entered between farmers-cooperatives and the Agumil shows that they are solely in favor of the company and at the complete disadvantage of cooperatives. For instance PTMA Section 1.14 recites that: If the cooperatives mismanage the operation they shall "…*hand over the management to AGPI…*". A former cooperative chairman explains that 'mismanagement' must be interpreted here as the inability of farmers to produce the required quantity of fresh fruit brunches per hectare (e.g. as the failure to meet the company's own expectations and projections). In short 'underproduction' and partial crop failure are regarded by Agumil as sufficient reasons for taking over the management of the land and taking away from cooperatives all decision-making power. (cf. Larsen at all 2014). A **Management Services Agreement (MSA)** sets out the terms and conditions for AGPI to manage the project on lands provided by the cooperatives. Also this contract contains provisions which place the overall control of plantations, production and sale with AGPI while the majority of financial and managerial risks stay with the cooperatives. For instance, AGPI is entitled to take over management if the project is not managed to its satisfaction. In addition to this, AGPI is imposing a 14% interest rate on all additional expenses (e.g. loans for purchasing fertilizer) and a 10% management fee which further contribute to deepening the cooperatives' debt (see Larsen at all 2014). In addition to this, Agumil's sister company, the Palawan Palm & Vegetable Oil Mills Inc (PPVOMI), rather than guaranteeing growers proceeds from the sale of fruit brunches according to the prizes set by the world market, it relies on its own 'pricing formula' which makes the proceeds contingent on the internal milling efficiency of the PPVOMI plant, prior to the deduction of 15% gross profit for PPVOMI. The so called 'pricing formula' is further calculated on PPVOMI's own reports about the selling price for CPO and kernel oil which, of course, farmers/growers have no chance to verify and audit (see Larsen at all 2014). As of now, all requests made by the officials members and chairmen of such cooperatives to amend the terms and conditions of such agreements have remained unheard.

The issue of farmers' indebtedness with both Agumil and **the Land Bank of the Philippines (LBP)** should be carefully assessed by the concerned government agencies. It would appear that the conditions for farmers to become indebted have been engraved into oil palm development schemes since their very inception. The bank commits 80% financial assistance while the remaining 20% becomes the borrower's equity. For newly formed cooperatives, having little experience and no capital, it is most impossible to provide the required financial counterpart. However, Agumil has found ways to overcome this constraint by setting up the equity for the cooperatives in order for the LBP to commit the 80% equity (cf. Barraquias 2010, Larsen at all 2014, ALDAW 2013). However, according to farmers, the Agumil did not inform them that a compounded interest rate of 14%. had been applied to the equity that the company had set up for them. As a result, cooperatives have now double loans, both from AGPI and LBP. Interestingly enough, a key provision contained in such loans-contract states that loans must be fully amortized before farmers can take out profit on the sales of oil palm fruit bunches. Many farmers now fear that their debts will continue to pile up for the entire duration of the project (30 years) and, being unable to meet payment schedules, they may end up losing their lands whose titles are being withhold by LBP. As soon as possible the Land Bank of the Philippines should commit itself to restructure cooperatives' loans, particularly with reference to amortization schedule and with the final objective of reducing penalties In case of delayed amortization (see Larsen at all. 2014).

Furthermore, the Land Bank should put binding policies in place to protect the poor and the environment, as well as to monitor the social and economic impact of its loan facility on the affected communities. It should also identify ways for compensating communities for the damage they have received because of oil palm development and it should return them the original land titles that are still being withheld by the Bank. Overall, the Land Bank should make plans for restoring the livelihoods of the affected communities through the project it has financed before committing more funds for oil palm expansion. It is worth nothing that Land Bank has an Emission Reduction Purchase Agreement (ERPA) with the World Bank under the Clean Development Mechanism (CDM). It has been suggested that this mechanism should help to identify and finance suited technologies to reduce methane emissions by the palm oil processing plant in Maasin (see Neame and Villarante 2013).

The Department of Labour and Industry (DOLE) should investigate allegations of unfair working conditions experienced by plantation laborers. It should also support plantations' workers to form unions/ associations as they wish, so to be able to better negotiate their rights with agribusiness enterprises.

In view of the alarming destruction of coconuts in Southern Palawan by beetles and other pests, **PCA** and **DA** should improve their pest eradication control measures and provide communities with sufficient technical means to counter pests' infestation.

The provincial government should move quickly and resolutely to approve a moratorium on further oil palm expansion in Palawan. On 29 September 2014, Dennis Socrates, the Vice-Governor of Palawan, has met a delegation of farmers and indigenous peoples belonging to the recently established Coalition against Land Grabbing (CALG). CALG members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, have delivered a petition signed by more than 4,200 individuals from oil palm impacted

communities, asking Governor Alvarez to pass a moratorium on oil palm expansion. This moratorium should be put in place with no hesitation, at least until reliable scientific data becomes available on the real benefits gained from oil palm development in comparison to its unintended costs such as increased carbon dioxide (from cleared plantation areas), loss of traditional access to land and resources, reduced land productivity, loss of traditional livelihood, biodiversity loss, etc. The government of Palawan, rather than pushing for industrial agricultural schemes that do not foster local consumption and are geared towards export, it should promote – instead - micro-credit programs for small land holders and public investments to support peasant agriculture, family farming, artisanal fishing and indigenous food procurement systems that are sustainable and based on ecological methods.

Finally, a serious review of existing and proposed oil palm plantations is urgently needed, in order to assess their present ecological status and the overlapping between them and those areas that are still conserved and managed by indigenous people as well with the ECAN land categories within the SEP law. Unless such review is carried out, there is a high risk that the environmental and ecological sustainability of the province, its agricultural productivity, and people's food security, will be severely and irremediably compromised.

Annex no.2

TABLE NO1. LIST OF USEFUL PLANT SPECIES AMONGST THE PÄLAWAN OF SOFRONIO ESPAÑOLA AND RIZAL, SOUTHERN PALAWAN

Local name	Scientific and family names	Uses	Additional remarks
PLANTS FOR THE CONSTRUCTION OF OBJECTS AND FOR HOUSE MAKING			
Äblas	*Code: pat1-1*	House-posts (Riz.)	It is believed that certain types of caterpillars (*ulad*) originate from this plant. Completely depleted (Riz.)
Ägtap	*Code: pat1-2*	A type of coconut grater made of a wooden seat into which it is inserted a metal rounded tip to scrape the endocarp from the coconut shell (Riz.)	
Änilaw	*Code: pat1-3*	Handle of the long-blade knife *(tukäw)* (Riz. + Esp.)	
Älumangi	*Code: pat1-4*	Used to cure stomachache (Esp.) Planted around the house as a protection against malevolent entities.	
Ändaramäy	*Code: pat1-5*	A rope is made from the bark to be used in the construction of *'siyud'* (scoop nets) (Esp. + Riz.)	Approx 70% drop (Riz.)
Ängkukubi	*Code: pat1-6*	Used for manufacturing the two-strings lute *'kudlong'* (Riz.)	Completely disappeared (Riz.)
Apad apad	*Code: pat1-7*	Used for manufacturing	Approx 70% drop (Riz.)

Apad apad	*Code: pat1-7*	Used for manufacturing mortars *'läsung'*, large cooking spoon *'lalu'*, handles of various objects and canoes *'gubang'* (Esp. + Riz.)	Approx 70% drop (Riz.)
Apaq dalan	*Code: pat1-8*	Used for its 'magical' power that makes oneself irresistible to the person he/she loves or is interested in. The flowers are soaked in coconut oil and used as a perfume. (Riz.)	
Apugan		Handle of dart quiver (*karaban*) (Esp. + Riz.), mortar (*läsong*), sheet and handle of machete	Completely disappeared (Riz.)
Aljäw	*Code: pat1-9*	Mortars (*läsong*), canoes (*gubang*) (Riz.)	Completely depleted (Riz.)
Bälinad	*Code: pat1-10*	The bark is used as strap for baskets, and the wood is used to make handles of knifes. (Esp. Riz)	Approx. 80% drop (Riz.)
Bangkuang Pangdan	*Code: pat1-11*	Woven crafts such a mats (*banig*), bags for rice (*bayong*), etc. (Esp. + Riz.)	
Bayug		Canoes (*gubang*), mortar *(läsung)* sheets for machetes *(taguban)* and handles of knife (Riz.)	Completely depleted (Riz.)
Bintangur	*Code: pat1-12*	Two-string lute (kudläng o kujapi) (Riz.)	Completely depleted (Riz.)
Buldung	*Code: pat1-13*	Flat winnowed trays '' (Esp. + Riz); tying material for making roofs-sections (*pawid*) and for tying fish together when carrying or selling them.	About 60% drop (Riz.)
Bunot bunot	*Code: pat1-14*	The bark used as a strap for baskets (Esp. + Riz.)	Completely depleted (Riz.)
Buntalinaw	*Code: pat1-15*	Used for the sheaths of machetes (Esp. + Riz.), handles of darts' quivers *(karaban)*, handles of knifes, spoons *(lalu)*, mortars *'(läsung).*	Completely disappeared (Riz.)
Dikläj		Handle of the traditional forged axe *(wäsäy)* and of other items. (Riz.)	
Dipanga	*Code: pat1-16*	Handles of darts' quivers	Completely disappeared (Riz.)

Dungän		Boats and canoes (*gubang*) (Riz.)	
Kämlit	*Code: pat1-17*	Two-strings lute (*kudläng*) (Riz.)	Approx over 70% drop (Riz.)
Kälasa	*Code: pat1-18*	Canoe (*guban*), sheath of machete, mortar *(läsung)* (Riz.)	Approx over 70% drop (Riz.)
Gähid	*Code: pat1-19*	Used as a weaving material to make huts, small plates as well as a tying material used in the making of pigs' spring traps (*bäwug*) (Riz. + Esp.)	The makings of huts and plates from this plant seem to have been acquired by Filipino migrants. Completely depleted (Riz.)
Gängas	*Code: pat1-20*	Handle of machete (Esp. + Riz.)	Completely depleted (Riz.)
Lanipga	*Code: pat1-21*	Handle of machete, mortar (Esp. + Riz.), canoe, sheath of machete	Completely depleted (Riz.)
Malabakir		Handle of machete (Esp.+ Riz.)	Completely depleted (Riz.)
Malaupas		Mortars (*läsung)*, spoons (*lalu')* . (Esp. + Riz.) .	Completely depleted (Riz.)
Maraitum		Cooking spoon (*luluag*) (Esp. + Riz.)	Completely depleted (Riz.)
Mararangu		Canoe (*gubang*), mortar (*läsung*) handle of machete, two-string lute (*kudläng*) (Riz.)	Completely depleted (Riz.)
Natuq	*Code: pat1-22*	Handle of machete, mortar, canoe *(gubang*), wooden-plate for gold-panning (*paningan*) (Esp. + Riz.)	Completely depleted (Riz.)
Sälugän	*Code: pat1-23*	The bark is processed to make g-strings *(ba'ag*) for men. The toxic sap is the basic ingredient for poisoning the blowpipe's darts (Esp. + Riz.)	
Säjapuq	*Code: pat1-24*	The bark is used as a strap for baskets and the wood to make handles of knifes (Esp. + Riz.)	About 70% drop (Riz.)
Sjar	*Code: pat1-25*	Canoes, boats and their parts	
Tägbäk	*Code: pat1-26*	Thatching and flooring of temporary shelters	
Tägäp	*Code: pat1-27*	Ropes made from the bark are used to make scooping nets for catching fish (Riz + Esp.)	Also used to make bark-clothes such as G-strings
Täguli		Used as a material for making	The branches of this plant are

		spring-traps for wild pigs and monkeys (Riz)	wrapped in a cloth and tied around the body as a belt. This is said to add strength to the body
Tägab	*Code: pat1-28*	Cooking spoons and mortars (Rz. + Esp.)	
PLANTS FOR THERAPEUTIC AND RITUAL USES			
Aba.	*Code: pat1-29*	Used to cure wounds. The leaves are pounded and applied to the wound. The plant is edible to animals such as buffaloes (Esp. + Rizal). The root is also attributed with anti-pyretic properties.	
Agä.	*Code: pat1-30*	Used for ritual purposes, the leaves are pounded and applied to major wounds. It is believed that if this plant climbs around another plant, the latter will slowly die (Esp. + Riz.)	Can be used as a talisman to attract game animals. For this purpose the smoke produced by burning this plant is passed on snare traps and hunting tools.
Alj.	*Code: pat1-31*	The decoction of the roots is taken internally against cholera (Riz)	
Änd.	*Code: pat1-32*	It is attributed with anti-pyretic properties. (Riz. + Esp.)	
And.	*Code: pat1-33*	The juice obtained from squeezing the boiled roots is used to reduce body temperature (Esp. + Rizal).	
Bäl.	*Code: pat1-34*	It is used to cure hemorrhagic wounds. The young leaves of the tip can be placed directly on the forehead as a remedy against headache. (Riz. + Esp.)	
Bur.	*Code: pat1-101*	The juice squeezed from fruits is believed to have some curative properties (Esp.)	
Änu.	*Code: pat1-35*	The grated bark is placed on the forehead, against headache. (Riz.)	
Änu.	*Code: pat1-36*	It is used to lower body temperature, the young leaves are pounded and used topically to reduce fever (Esp. + Riz.) The root is boiled and drank to increase fertility in women. (Esp. + Riz.). It is also believed to have antipyretic properties. It is used as well during agricultural rituals.	The water from this vine is also used to sprinkle the young rice plants in the *pinädungan* (a ritual area at the centre of the field) to protect them from diseases. Leaves are edible.

Apa.	*Code: pat1-37*	The root is believed to keep away malevolent spirits such as *balbalan* (Riz.)	
Äri.	*Code: pat1-38*	It is used to improve sights, especially when eyes are blurred. It is also used by the shaman during agricultural rituals. When rice is affected by disease, the terminal branch of this plant is burned and inserted in a vertical position in the center of the swidden. The leaves can be placed on the body part being affected by pain, It is believed to be particularly effective against muscular pains (Riz.)	
Ban.	*Code: pat1-39*	The bark is said to be effective against the cure of UTI and kidneys disorders. (Esp. + Riz.)	
Ban.		Used as a de-worm laxative for large herbivorous (caws and buffalos). The young tips of this plant are used (Esp.). Also used to cure stomach ache and to induce abortion. The juice of the bark is used (Riz.)	
Bäj.	*Code: pat1-40*	Used as a remedy to avoid those illenesseses cause by the sudden change of temperature (*pasma)*, as well as to cure UTI, kidney disorders and cough (Riz.)	
Buj.	*Code: pat1-41*	The odor of the leaves can help to awaken people who suddenly become unconscious (Esp. + Riz.) The flowers are placed on the body (*tapal*) to reduce convulsions.	
Buk.	*Code: pat1-42*	The bark soaked in water is said to be a remedy against the bites of snakes and dogs (Riz).	Completely depleted (Riz.)
But.	*Code: pat1-43*	The pounded leaves are said to have various medical properties (Riz.)	
Bin.	*Code: pat1-44*	The water of the boiled bark is use to reduce body pain (Esp. + Riz.)	

Bul.	*Code: pat1-45*	The root is boiled and used as a remedy against caught, but also against diarrhea with blood (Esp.)	
Bul.	*Code: pat1-46*	Used for agricultural rituals, the leaves on the tip are said to have antipyretic properties (Esp. + Riz.).	
Däg.	*Code: pat1-47*	The leaves are used during rituals for the swidden field *(uma*) and for human ailments (Riz.)	
Dal.		The roots are pounded and applied to wounds to stop bleeding (Riz)	
Däl.	*Code: pat1-48*	Used for agricultural rituals. The boiled roots of this plant are said to be effective against the worst cases of measles. (Esp+ Riz). The boiled roots are also effective to reduce infants' body temperature. The seeds are used to produce necklaces.	It is believed that swallowing eight seeds of this plant is an effective remedy against skin eruptions (Riz.)
Dun.	*Code: pat1-49*	The inner part of this plant is grated and applied to the bites of poisonous animals such as *alupjan* (scolpendra) (Esp. + Riz.). Also effective against headache.	Leaves are said to magically attract wild pigs
Gap.	*Code: pat1-50*	The roots are boiled and used during rituals. It is said to be particularly effective against therapies aiming at solving problems of bones dislocation (Riz.).	A talisman is made with the cotton produced by this plant to become insensible to any struck from enemies.
Kad.	*Code: pat1-51*	This plant has a strong scent and it is used ritually to cure rice diseases (Riz.)	
Käm.	*Code: pat1-52*	The young leaves of the tip are used during curing rituals, and during the performance of orations (*tawar*) (Esp. + Riz)	
Käm.	*Code: pat1-53*	The bark is said to be an effective antipyretic for	

		children and the juice from the boiled bark can be used for stomach and intestinal disorders (Riz.)	
Kap.	*Code: pat1-54*	The pounded leaves are placed directly on swelled body parts (e.g. due to insect bites) and on the forehead in case of headache and to reduce fever (Esp. + Riz).	
Kaw.	vine	A kind of vine used to make bracelets and the fruit is used as a defense against vampires and other malevolent entities (Riz. + Esp.)	
Käj.	*Code: pat1-55*	Used in rituals. The leaves are said to keep away malevolent beings (Riz.).	
Kil.	*Code: pat1-56*	Used during curing rituals (Riz. + Esp.)	It is planted around the house to protect the household from malevolent entities and also in the cemeteries to prevent the raising of the deaths in the form of zombies.
Kun.	*Code: pat1-57*	Used during curing rituals. The juice from this root is also a remedy against stomach and intestinal disorders (Riz. + Esp.).	
Kus.	*Code: pat1-58*	Used for ritual purposes. The smoke from its leaves is very effective to force bees out of their nests (Riz.)	
Lind.	*Code: pat1-59*	The juice from the bark is used as a remedy against mouth pustules and tonsillitis (Esp. + Riz). The scraped leaves are applied to the head against headache and to reduce body temperature (Riz.)	Completely depleted (Riz.)
Mai.		The root is believed to keep away vampires (Esp. + Riz). The leaves are burned in the middle of the swidden field against rice pests.	
Mat.	*Code: pat1-60*	The leaves and roots are used as a remedy against toothache and also as a defense against malevolent spirits (Riz.)	The branch of this plant is placed in the *pinädungan* as a protection for the rice plants (Riz.)
Mar.	*Code: pat1-61*	The bark is used in combination with massages to reduce stomach ache. The leaves are also burned in the	Also used for fish poison

		swidden field to contrast pests (Esp. + Riz.).	
Mar.	Grass	It is used during agricultural rituals to cure rice. The leaves are used as a remedy against toothache. The pounded root is used to stop bleeding and also as a remedy against intestinal and stomach disorders (Riz.)	
Pal.	*Code: pat1-62*	It is used for various rituals and the boiled roots are a remedy against relapse due to overwork, etc. It is also effective against cough. The boiled fruits are used to cure ulcers and 'high blood' (Esp. + Rizal).	Used as a sort of talisman after proper request to the mystical owner in charge of this plant (*Ämpuq päpalad*) (Riz.)
Pal.	*Code: pat1-63*	The steam is pounded to be used during therapeutic massages to solve problems of bones dislocation. The inner part, soaked in water, is a powerful antipyretic (Esp. + Riz.)	
Pär.	*Code: pat1-64*	Used during curing rituals. The root is boiled and is said to be effective against intestinal and stomach disorders. The pounded leaves are applied to wounds to stop bleeding. The boiled leaves are also effective against cough. (Esp. + Riz).	The leaves of this plant are passed on the muzzle of hunting dogs to increase their ability to smell wild pigs (Riz.)
Pär.	*Code: pat1-65*	This is one of the most important ingredients used in rituals. The leaves or resin are burned to keep away malevolent entities (Esp. + Riz.)	The exoduses of this plant solidify quickly and are burned as a sort of incense to establish contacts with supernatural entities
Pir.	*Code: pat1-66*	Used in rituals. The leaves are said to keep away malevolent entities (Riz.)	The bark is put into water and used to wash the eyes. It is believed that this will help 'seeing' beehives in the forest and/or to determine the illness of a patient
Rin.	*Code: pat1-67*	The latex is used to cure wounds and to heal scars (Riz.).	The decoction of the bark is used as a remedy against stomachache and to lower down fever. The wood is also used for various purposes.
Ruk.	*Code: pat1-68*	The most popular plant used during diagnostic and curing	

		rituals. It is believed to provide the shaman (*balyan*) with the gift of clairvoyance. (Esp. + Riz.)	
Sär.	*Code: pat1-69*	Used during curing rituals. The juice from the bark is used to increase fertility. The fruits are sweet and edible. The leaves are said to have antipyretic properties and can be applied directly to the body (Esp. + Riz).	It is believed to magically attract fish.
Sil.	*Code: pat1-70*	Strips of Licuala leaves are tied into bunches (*dung-dung*) and used by the shaman during the trance-dance (*tarek*) (Riz. + Esp.) and as a decoration for the *pinädungan* (Riz.)	
Sum.		The juice from the bark is used as an ingredient for the poison of the blowpipe's darts (Riz).	Also used as a fish poison
Tab.	*Code: pat1-71*	The internal fluid substance of this plant is believed to increase milk production in women who have just delivered. The fruits are mixed with rice seeds to increase harvest (Riz.)	
Tan.	*Code: pat1-72*	The root is used as a remedy against fever. The internal part is boiled and drank as a remedy against malaria. (Esp. + Riz). Used during agricultural rituals: it is inserted in the ground at the centre of the field (Riz.). The fluid contained in steams can be drunk.	The plant is placed in the *pinädungan* to protect the growing rice from pests.
Tän.	*Code: pat1-73*	The juice from the bark is used in treating bones' dislocations and mussel pains (Riz. + Esp.)	
Täb.	*Code: pat1-74*	The root is boiled and used to treat headaches. The pounded leaves are applied directly to the body to reduce temperature (Riz.).	
Taj.	*Code: pat1-75*	The skin of this root crop is boiled to treat body numbness (Esp + Riz). The inner part is pounded and	The rhizome is used as a defense against malevolent spirits

Taj.	*Code: pat1-75*	The skin of this root crop is boiled to treat body numbness (Esp + Riz). The inner part is pounded and applied to the body against rheumatism (Riz.)	The rhizome is used as a defense against malevolent spirits
Tir.	*Code: pat1-76*	The young leaves of the tip are boiled and used to treat stomach and intestinal disorders (Riz.).	
WILD FOOD PLANTS			
Ägutäj	*Code: pat1-77*	Edible marrow and inflorescence (Riz. + Esp.)	Approx. 80% drop (Riz.)
Ämlung	*Code: pat1-78*	Young leaves (Riz. + Esp.)	
Äntutuhuq	*Code: pat1-79*	Tuber (Riz.)	
Äpari	*Code: pat1-80*	Tuber (Esp- + Riz)	
Asang asang	*Code: pat1-81*	Edible tips (Riz.)	
Babasalan		Edible leaves preferably cooked with fish (Esp. + Riz)	
Badak	*Code: pat1-82*	Edible fruits (Riz)	Completely depleted (Riz.)
Bagu	*Code: pat1-83*	Edible young leaves and fruits (Esp. + Riz.)	
Bulnuq	*Code: pat1-84*	Edible fruits (Esp. + Riz.)	Completely depleted (Riz.)
Duro manok	*Code: pat1-85*	Edible young leaves (Riz.)	
Genti	Wild tuber	(Riz.)	
Käljat	Vine	Fruits can be roasted (Riz.)	
Kändis	*Code: pat1-86*	Used as condiments: it gives a sour taste to food (fruits and leaves used) (Riz. + Esp.)	
Kädäg	*Code: pat1-87*	Young leaves (Riz.)	
Lima lima	*Code: pat1-88*	Tuber (Esp + Riz.)	
Lipso	*Code: pat1-89*	Used as condiments, it gives a sour taste to food (leaves), commonly cooked with rice (Riz. + Esp.)	
Muta muta	*Code: pat1-90*	Edible fruits (Riz.)	
Piratäw	*Code: pat1-91*	Edible leaves (Riz. + Esp.)	
Puklu puklu	vine	Edible young leaves (Riz.)	
Saguri	root	Tuber (Riz.)	Consumed after being boiled
Säruwak	*Code: pat1-92*	Tuber (Riz.)	The inner tuber has a yellow color

Ulansiman	*Code: pat1-94*	Edible young leaves (Riz.)	
EDIBLE MUSHROOMS			
Ämurung		Esp + Riz	Growing at the ground level
Äridep	*Code: pat1-95*	Esp. + Riz.	Growing, especially, on the dead trunks of *Arenga undulatifolia*
Bäsiqbäsiq		Riz.	Growing on decaying trees
Bulaw		Riz. + Esp.	Growing on tree trunks
Kalasan		Riz. + Esp.	Growing on tree trunks
Kampilaton		Riz.	Growing on decaying trees
Kuhung	*Code: pat1-96*	Esp. + Riz.	Growing on the ground. In Palawan mythology the shape of this mushroom is compared to the shape of the Earth
Kudop Kudop		Small size-mushroom (Esp. Riz.)	Growing on the felled trees, especially after forest clearing for *kaingin*
Lana lana		Riz.	Frequently seen on the decaying trunks of *Arenga undulatifolia*
Mananim bulo		Riz.	Growing in swidden fields especially after burning
Punti punti		Riz	Growing on the decaying trunks of banana
Sarip sarip		Riz.	Growing on tree trunks. It has a black color
Tälungäg	*Code: pat1-97*	Riz. + Esp.	Growing on the decaying felled trees.
Tulägbuk	*Code: pat1-98*	Riz.	
Ulasan		Riz	
PLANTS FOR FISH POISON			
Apalang	*Code: pat1-99*	Fruits are used (Esp.)	
Bägna	vine	Bark is used (Riz.)	
Bäsak	*Code: pat1-100*	Bark is used (Riz)	The fruits are pounded and mixed together with the fruits of *bätbat (Arenga undulatifolia)* to be used as fish-poison
Pangi	*Code: pat1-102*	Leaves are used (Esp. + Riz)	
Känumäy	*Code: pat1-103*	Bark and sap are used (Riz.)	The sap of this plant is highly irritant to the eyes. Completely depleted (Riz.)
Kärut o Kudut	*Code: pat1-104*	The juice from the pounded tubers is one ingredient for fish poisoning. (Esp. + Riz.).	
Lagtang	*Code: pat1-105*	The juice from the squeezed fruits (Riz.)	Fruits and leaves are used as a light fish poison that only have an effect on small fish

Mägalsa* o *Mälägisa	*Code: pat1-106*	Seeds are used for fish poison (Riz.)	This small tree is cultivated
Payung	vine	Esp.	
Saheg			The juice from the pounded bark has curative properties (Riz.)
Ulam	*Code: pat1-107*	Pounded leaves and fruits (Esp. + Riz.)	Children who are late in learning how to walk are beaten seven times with the young leaves of this plant. It is believed that this will enhance the child's walking skill. The flowering of this plant signals the time when fields need to be weeded. The flower is said to cause allergies. The fruits are used as fish-poison. Approx 60% drop (Riz.)
OTHER TOXIC PLANTS			
Ditaq tigbung* o *Ditarabun	tree	An effective poison for blowpipe darts. Used in the hunting of monkeys and wild pigs. The high level of toxicity is said to be enough to kill a human being (Riz.)	
Badjang	*Code: pat1-108*	The sap of this plant is mixed with the sap of *Antiaris toxicaria* to poison blowpipe darts (Riz.)	It also has anti-hemorrhagic properties. (Riz)
Gähid	*Code: pat1-109*	The sap is toxic and it is used as one of the ingredients for the mixture employed in poisoning darts for the blowpipe, for the hunting of wild pigs and monkeys (Esp. + Riz.)	
BAMBOOS			
Bikal	*Code: pat1-110*	Flat winnowed trays (*nigu*), baskets (*tinkop*) (Esp. + Riz.)	Approx. 60% drop (Riz.)
Binsag	*Code: pat1-111*	Flat winnowed trays (*nigo*), baskets (*tinkop*) (Esp + Riz.).	Edible marrow and shoots. Completely depleted (Riz.)
Bungbung	*Code: pat1-112*	Baskets (*tabig*), flat winnowed trays (*nigu*), walling mats (*sawali*), roofing (*tadtad*), fishing (Esp. + Riz.)	Also used to make a musical instrument (*sanger-sanger*). This is a vibraphone mainly used amongst the Pälawan of Quezon and Brooke's Point. Completely depleted (Riz.)
Käwuajan	*Code: pat1-113*	Flat winnowed tray (*nigu*), baskets (*tinkop*), *pagang* (musical instrument) Esp + Riz	Edible marrow. The shoot (*rabong*) is edible
Näpnap	*Code: pat1-114*	Baskets *(tabig), nigu, sawali, balanan*, fishing traps, roofing (*tadtad*) (Esp. + Riz.), spring	Completely depleted (Riz.)

Näpnap	*Code: pat1-114*	Baskets *(tabig), nigu, sawali, balanan*, fishing traps, roofing (*tadtad*) (Esp. + Riz.), spring trap for pigs (*bawag)*(Riz.)	Completely depleted (Riz.)
Päsungan	*Code: pat1-115*	Material for making 'clips' (*gigipit*) to keep the main fibers tied to the circular frame during construction of *nigu* (flat winnowed trays).(Esp. + Rizal)	Edible marrow (*ubud*)
Sumbiling	*Code: pat1-116*	*Tabig, nigu, sawali, balanan, salug* (a kind of fishing trap), *sapukan, suling, sawali, ,nigu*, roofing (*tadtad*), (Esp. + Riz.), *bawag* (Riz.)	
Täring	*Code: pat1-117*	Unit of measurement for rice (*gantangan*), flooring, etc. (Riz. + Esp.)	One gantang is almost equivalent to 2.5 kg.
Uläs	*Code: pat1-118*	The juice from the pounded bark is an effective dart's poison for wild pigs (Riz.)	
PALMS			
Alusag		Riz.	
Ämagas	*Code: pat1-119*	*Tabig, nigu,tupur, tingkäp* (Esp. + Riz.)	Edible marrow (*ubud*). Completely depleted (Riz.)
Änibung	*Code: pat1-120*	Flooring (*datag*) Esp. + Riz.	Edible marrow (*ubud*). Completely depleted (Riz.)
Ärurug	*Code: pat1-121*	*Biday*, fish baskets, tying material for making *nigu*, bags, snare traps for chickens (*rabay*) , fishing traps (*bakungan*) (Esp + Riz)	Completely depleted (Riz.)
Banga	*Code: pat1-122*	Dibble stick (*tutugda*) (Esp. + Riz.)	
Bätbät	*Code: pat1-123*	Spear trap for pigs (*bawog*)	Used for extracting edible starch. Completely depleted (Riz.)
Bugtung	*Code: pat1-124*	A type of spear (*kalawit*), handle of the harvesting knife (*gelit*), backpacks (*kiba*), (Esp. + Riz)	Completely depleted (Riz.)
Buklid	*Code: pat1-125*		Edible marrow (*ubud*)
Busniq	*Code: pat1-126*	Straps for baskets and backpacks (*rarung*) and also	Completely depleted (Riz.)

Diplak	*Code: pat1-127*	Riz.	Edible marrow (*ubud*)
Kalapag o Palapag o Palaran		Fibers for weaving (Riz. + Esp.)	
Kälapi	*Code: pat1-128*	Baskets (*tabig*), rice baskets, fish baskets, handle of spear (Riz.)	Completely depleted (Riz.)
Pärasan	*Code: pat1-129*	Tying material for baskets (Riz. + Esp.)	Edible marrow (*ubud*)
Pisa	*Code: pat1-130*	Dibble stick (*tutugda*), flooring (*datag*), seed used as an ingredient for betel chewing (Esp. + Riz.)	About 70% drop (Riz.)
Sika	*Code: pat1-131*	Mats (*biday*), fish baskets, tying material for *nigu, rabay,* fishing trap (*bakungan*), back-packs (*rarong*) (Esp. + Riz)	Completely depleted (Riz.)
Silad	*Code: pat1-132*	Leaves are stripped and tied together to be used during *terek* dances (Riz.)	Completely depleted (Riz.)
Tikäd manok	*Code: pat1-133*	Tying material for house construction, and for the handle of the scoop net used for fishing (*siyud*) (Esp + Rizal), fishing traps	Completely depleted (Riz.)
Timbärangan		*Rarung, bayung, tabig*. (Riz)	
Uriras	*Code: pat1-134*		Edible marrow (*ubud*)
OTHER PLANTS			
Aräkak	*Code: pat1-135*	The resin is used for torches (Riz.)	
Balugu	*Code: pat1-136*	The juice from the bark is used as a shampoo (Riz + Esp.)	
Bäribiran	*Code: pat1-137*	A type of tree used for bringing the dead to the graveyard and for other minor uses (Riz.)	
Tagbak	*Code: pat1-138*	The steam is used as temporary flooring for over-night shelters. Fruits are edible. It indicates that the soil is suitable for the planting of rice (Riz. + Esp.)	Completely depleted (Riz.)
Tirungan		Fruits eaten by birds (Riz.)	Completely depleted (Riz.)
Uriang	vine	Used for fencing	

LEGEND

This table provides a list of local plant names divided according to their generic uses: **a)** plants for the construction of objects and for house making (37 species); **b)** plants for therapeutic and ritual uses (55 species); **c)** wild food plants (24 species); **d)** edible mushrooms (15 species); **e)** plants for fish poison (11 species); **f)** other toxic plants (3 species); **g)** bamboos (9 species); **h)** useful palms (19 species); **I)** other plants for various uses (6 species). The listed plants' names and uses were originally recorder in southern Palawan between 1992 and 1996 by anthropologist Dario Novellino, when he was a visiting research affiliate (VRA) of the Institute of Philippine Culture (Ateneo de Manila University). Dr. Novellino has kindly agreed to provide this information to ALDAW exclusively for the purpose of supporting indigenous Pälawan claims against oil palm expansion and to facilitate the completion of this report. Ms. Lenita Nangcod (former ALDAW CO) was in charge of determining whether and to what extent the list of plant species and uses provided by Dr. Novellino was also relevant to the Pälawan of sitio Maribong and Pasi (Bgy. Pulot, Municipality of Espanola) and to the Pälawan of sitio Bintatkaris, Salungsong and Kabongbongan (Bgy. Iraan, Municipality of Rizal), where her appraisal was carried out. The abbreviations Riz. and/or Esp. associated to the listed plants indicate that their uses have been documented in one municipality or in both (eg. Riz + Esp.). Ms. Lenita Nangcod is also responsible for suggesting a percentage (60%, 70% drop, etc.) with reference to the decline of particular species within oil palm impacted areas in Bgy. Iraan (Municipality of Rizal). These figures, obtained through questionnaires and open discussions with indigenous informants, must be regarded as tentative estimates since they are not based on mathematical/statistical calculations. For the purpose of not publically disclosing the specific plant species used by Pälawan, the scientific and families names have been substituted by an identification code. A three letters abbreviation is used for the names of those plants associated with medicinal and ritual uses. This is to protect Pälawan secret knowledge and people's intellectual property rights. Where no codes are associated to a vernacular plant name, it means that no corresponding scientific name was identified. This might have occurred when no bibliographic references were available for triangulation and crosschecking and/or when no comparison was possible between the photo of plants taken in the field and the relevant photos/sketches found in scientific/botanical publications. **Note**: Phonetic transcription of Pälawan names is still under revision.

Annex no.3

TABLE NO. 2
MATERIAL OBJECTS AND RELATED PLANT SPECIES AMONGST THE PÄLAWAN OF RIZAL MUNICIPALITY

ARTIFACTS/OBJECTS	PLANT LOCAL NAME	SCIENTIFIC NAME	FAMILY NAME	OTHER INFORMATION AND NOTES
MUSICAL INSTRUMENTS				
Gimbal (drum)	*Banga* *Dädkutan+* *Kajakaja+* *Mägluja+* *Nigi*	*Code: pat2-1* *Code: pat2-2*	*Code: pat2-1a* *Code: pat2-2a*	The *ubud* (*palm cabbage*) is not edible The local plant name *nigi* is also used by Tagbanua indigenous communities of Central Palawan and is associated with *Xylocarpus granatum*. See Madulid 2001

Babasal (biters for the drum)	*Ulangu* *Kajakaja+* *Dädkutan+*	*Code: pat2-3*	*Code: pat2-3a*	Generally all hardwood trees are suited for this purpose
Suling and ***Babärak*** (flutes)	*Sumbiling* *Binsag* *Bungbung* *Näpnap*	*Code: pat2-4* *Code: pat2-5* *Code: pat2-6* *Code: pat2-7*	*Code: pat2-4a* ibid ibid ibid	
Aruding (Jew's harp)	*Bätbat*	*Code: pat2-8*	*Code: pat2-8a*	
Pagang (chordophone having between 4 to 12 strings)	*Käwuajan*	*Code: pat2-9*	*Code: pat2-9a*	This large bamboo is also used as a container for the water.
Äiagong (two-strings chordophone)	*Käwuajan**			Most popular in the Municipalities of Brooke's Point and Bataraza
Kudläng, kujapi o ***päkat***	*Apad apad* *Ängkukubi* *Bintangur* *Kärampi* *Kulbi* *Sämbulawan* *Tägas*	*Code: pat2-10* *Code: pat2-11* *Code: pat2-12* *Code: pat2-13* *Code: pat2-14*	*Code: pat2-10a* *Code: pat2-11a* *Code: pat2-12a* *Code: pat2-13a* *Code: pat2-14a*	Traditionally before the acquisition of nylon, the strings of the lutes were obtained from the roots of *bätbat (Arenga undulatifolia)* The bark and fruits of *ängkukubi* are also used as an ingredient for betel chewing.
Gabang kulintangan (xylophone) Body Wooden bars	*Kämlit* *änibung*	*Code: pat2-15* *Code: pat2-16*	*Code: pat2-15a* *Code: pat2-16a*	Mainly used by *Panimusan* (Palawan Muslims)
TOOLS FOR HUNTING, TRAPPING AND GATHERING				
Säpukan (blowpipe)	*Sumbiling**			Pälawan blowpipes are made of two bamboo tubes of a small diameter enclosed in a larger

Käraban (darts' container) ***Savitan*** (handle of the dart's container)	*Bungbung**			diameter bamboo. For the smoothening of the inner parts of the tubes the abrasive leaves of *agupit* are used. The main decoration of the dart container's handle is a stylised wild pig *(biäk).* The fruits are edible.
	Ärisurang			
	Buntalinaw	*Code: pat2-17*	*Code: pat2-17a*	
	Dipanga	*Code: pat2-18*	*Code: pat2-18a*	
	*Tägas**			
Basläy (single-pointed dart) and ***Barawang*** **(**arrow-shaped darts)	*Bungbung**			The darts having an approximate length of 30 centimeters are balanced by a cone-shaped head (*lubat*) made from the main veining (*luba*) of the leaves of *bätbat (Arenga undulatifolia), busniq (Arenga brevipes)* and *täpikan* (*Caryota mitis*),
	*Bätbat**			
	*Näpnap**			
	*Sumbiling**			
	*Bätbat**			
Lubat (dart's head)	*Bätbat**			
	Busniq	*Code: pat2-19*	*Code: pat2-19a*	
	T*äpikan*	*Code: pat2-20*	*ibid*	
Bujak, *Surajang, Kälawit* (three types of spears) Spear's handle	*Bänga**		*Ibid*	
	*Buntalinaw**			
	Bugtung	*Code: pat2-21*	*ibid*	
	Kälapag	*Code: pat2-22*	*Ibid*	
	Silad	*Code: pat2-23*	*Ibid*	
	Tabuljan			In Bisayan language a tree named *tambulyan* has been identified as *Leea sp*. (Leeaceae). See Madulid 2001

Tagi (a spear made entirely of wooden material) Handle Point	 *Bätbat** *Bungbung**			
Bäqang (snare trap for squirrels, monkeys, monitor lizards, wild cats, etc) ***Binbin*** and ***kulimbuq*** (snare traps for birds) ***Pidlung*** (snare trap for birds) ***Pitik*** (snare trap for wild cats) Ropes used for the traps listed above	 *Tägäp* *Pärangiq*	 *Code: pat2-24* *Code: pat2-25*	 *Code: pat2-24a* *Code: pat2-25a*	 The fibers of the bark are used to make ropes The inner fibers of the pineapple twisted together make strong ropes
Bawäg (spear spring trap for wild pigs and porcupines) Pointed stick **Säklaw** (a decorated stick used to position the rope of ***bawäg***). Ropes of the spring trap ***Bäräbatan*** (woven container for the points of bawäg)	*Bäbanatuq* *Tägas** *Gähid* *Ärurug* Various species of rattan	*Code: pat2-26* *Code: pat2-27*	*Code: pat2-26a* *Code: pat2-27a*	
Bilagung (a type of snare)	*Tägäp**			Fibers from the bark of this tree are used to make the rope for the snare. This is a single snare placed on the trails frequented by wild pigs.
Raway o Rabay (snare trap for wild chickens) ***Usuk usuk*** (Sticks to keep the snares in place)	 *Änibung** *Bänga**			

Raway o Rabay (snare trap for wild chickens) ***Usuk usuk*** (Sticks to keep the snares in place)	*Änibung** *Bänga** *Sika*	*Code: pat2-28*	*ibid*	
Tutuläng (a long sequence of well-tied rattan strings and poles.) ***Nawj*** (strings) poles	*Sika** *Mäläqäg* *Timbärangan*	*Code: pat2-29* *Code: pat2-30*	Ibid Ibid	It is used to climb tall trees during the collection of wild-honey and nestlings. The gatherer will throw a stone attached to a rattan string so that it will pass over a tree branch and fall again on the ground. Then more strings will be tied to it to create a sort of aerial bridge that will allow the gatherer to reach the tree's canopy.
TOOLS FOR FISHING AND MATERIAL FOR BOAT MAKING				
Sjud (scoop-net) **Handle** **Woven net**	*Tikäd manok* *Tägäp** *Tabas*	*Code: pat2-31* *Code: pat2-32*	Ibid	This type of rattan is said to be very resistant to water and thus it is a chosen material for the making of these objects that are subject to constant humidity and direct contact with water.
Tiwägan (fishing rode) ***Täli*** *(fishing line)*	*Pärätungän* *Sumbiling** *Päräng̃iq**	*Code: pat2-33*	*Code: pat2-33a*	The fruits and marrow of this plant are edible. Leaves can be used as thatch and the steams for house walls. The roots provide material for the construction of snare-traps for wild chickens.
Asag (conical fishing trap with one entrance only) ***Bubuq*** (conical fishing trap with two entrances)	*Tikäd it manuk**			
Bungsud (fish fence) Main material	*Bungbung**			The natural flow of small streams and shallow rivers is diverted with stones and fish are forced to enter the fence.

Diving snorkels	*Pägatpat*	*Code: pat2-34*	*Code: pat2-34a*	In several Philippine languages the local plant name *pagatpat* is associated to *Sonneratia caseolaris* (L.) Eng. Sonneratiaceae, See Madulid 2001.
Lambuq (small boat), canoes and their parts	*Ängri*	*Code: pat2-35*	*Code: pat2-35a*	
	Aljäw	*Code: pat2-36*	*Code: pat2-36a*	
	Apad-apad	*Code: pat2-37*	*Code: pat2-37a*	
	Bajug	*Code: pat2-38*	*Code: pat2-38a*	
	Bitangur	*Code: pat2-39*	*Code: pat2-39a*	
	Bubug	*Code: pat2-40*	*Code: pat2-40a*	This bamboo is used for the outriggers *(tadik)* of the boats. Amongst the Pälawan the word *bajug* is associated to both a bamboo and to a tree species.
	Däw			The fruits attract wild pigs in specific locations where the hunters will try to catch them.
	Dungän	*Code: pat2-41*	*Code: pat2-41a*	In Tagbanua language the term *Dungän is associated to the species Ehretia philippinensis* (?) A.DC. Boraginaceae. See Madulid 2001. Obviously this herbaceous plant cannot be the same species that Pälawan use for boat building
	Indang	*Code: pat2-42*	*Code: pat2-42a*	The term *indang* recurs frequently in various Philippine languages and is associated with species belonging to the following families: Euphorbiaceae, Lauraceae, Moraceae, Verbenaceae. See Madulid 2001.
	Länipgaq	*Code: pat2-43*	*Code: pat2-43a*	
	Natuq	*Code: pat2-44*	*Code: pat2-44a*	
	*Sämbuläwan**			
	Sjar	*Code: pat2-45*	*Code: pat2-45a*	
	Tabigiq			
	Tämbilakan			
Bugsaj (paddles for boats)	*Ängkukubi**			
	Mälabakir			

TOOLS FOR THE GATHERING OF WILD HONEY				
Biaw or ***käpal*** (temporary containers used for the collection of wild honey)	*Änibung**			The old dry fronds are used.
	Lindägung	*Code: pat2-46*	*Code: pat2-46a*	
	Mämaqan	*Code: pat2-47*	*Code: pat2-47a*	The fruits of this palm also provide an important ingredient for betel chewing which is a common practice among the Pälawan. Leaves of *Piper betle* L. or of different Piperaceae are chewed with tobacco leafs, nuts of A*reca catechu*, and shell-lime. The mixture has tonic properties. Aside from *Areca catechu* L:, the nut of the wild *Areca vidaliana* Becc. can be used as a second class ingredient in betel chewing.
Bunuqut (torch of dried leaves)	*Bätbät** *Kälapi** *Silad**			This is used to send away the bees from the honeycomb and/or nest. Dried leaves of different plant species can be used to make the torch.
Tying material for keeping the leaves together.	*Mäingit*	*Code: pat2-48*	*Code: pat2-48a*	
	Säjapuq			
BASKETRY				
Main fibers for weaving the body of rigid baskets (such as ***tinkäp, bäka-bäka, täbig, tibung,*** *etc.)* and flat-winnowed trays (***niguq***)	*Ämagas*	*Code: pat2-49*	*Code: pat2-49a*	
	*Ärurug**			
	Buldung	*Code: pat2-50*	*Code: pat2-50a*	
	Bätung			
	Binsag	*Code: pat2-51*	*Code: pat2-51a*	
	*Bungbung** *Näpnap** *Sumbiling** *Timbärangan**			
Base of baskets (***lämpi****)*	*Kälapi*	*Code: pat2-52*	*Code: pat2-52a*	Only the inner part of the rattan cane is used for this purpose
	Mäläkawit	Vine ?		The root of this *Ficus* species is used.
	Nunuk (root)	*Code: pat2-53*	*Code: pat2-53a*	

	Paläw *Sulsul-bäsing*	*Code: pat2-54* *Vine*	*Code: pat2-54a*	
Material used for tying together the different parts of a basket	*Ärurug** *Mäläqäg** *Sika** *Timbärangan**			
Material used to make the 'cross' at the centre of the basket's base	*Bälinawnaw* *Säpuk-Bungäw*	*Code: pat2-55* *Code: pat2-56*	*Code: pat2-55a* *Code: pat2-56a*	Most probably this species corresponds to *Lepisanthes fruticosa* (Roxb.) Leenh. Although in Tagbanua language the plant named *balinawnaw* has been identified as *Lepisanthes rubiginosa* (Roxb.) Leenh, see Madulid 2001. Also used as a material for the construction of snare traps
Material for making 'clips' (*gigipit*) to keep the main fibres tied to the circular frame during construction of *nigu* (flat winnowed trays).	*Pasungan*	*Code: pat2-57*	*Code: pat2-57a*	The shoots of this climbing bamboo are edible
Bajung (soft baskets for rice)	*Buri* *Limbägas* *Pängdan* *Sika** *Timbärangan**	*Code: pat2-58* *Code: pat2-59* *Code: pat2-60*	*Code: pat2-58a* *Code: pat2-59a* *Code: pat2-60a*	Widely in the Philippines, the leaves of this plant are utilized for thatching and for making hats, bags, ropes and mats. Fibers from the leafstalk make beautiful 'buntal' hats. A great quantity of starch can be obtained from the trunk. The sap, collected by making a series of slices on the exposed growing point, is made into e fermented dink, vinegar and muscovado sugar. Pandanus leaves are split to remove the thick rib and rough edge and are further folded or split to the correct width.
pupgaqan (squeezer for the grated cassava)	*Ämagas** *Timbärangan**			
Main material for the straps of baskets	*Bälinad* *Bäbaräkän* *Bunut bunut*	*Code: pat2-61* *Code: pat2-62*	*Code: pat2-61a* *Code: pat2-63a*	The bark is used. The wood of this species may be used to fence graveyards. Bunut-bunut o Bonot-Bonot in Cebuano language is associated to three species of the

	*Tägäp**						genera Glochidion: *Glochidion camiguinense, Glochidion philippicum* and *G. rubrum.* See Madulid 2001. The bark is used.
MATS								
Ampäran (a mat for drying rice) ***Dam-dam*** (a type of soft mat)		*Buri**						This palm can also be used for the extraction of starch (*natäk)*. However the extraction of palm flour from this species is regarded much harder than *natäk* extraction from *gumbia (Metroxylon sagu).*
Dakuq (mat for drying rice)		*Ärurug**						
Täpär (a type of mat)		*Ämagas** *Mägsäpuqun** *Mäinget+* *Näpnap** *Sumbiling**						
Timpungan (a type of mat)		*Sumbiling**						
Arisäw (mats for drying tobacco leaves)		*Bungbung** *Näpnap** *Sumbiling**						
Bidaj (fine mat made of rattan strips) Main material Rattan species used for tying the strips together ***Lämpi*** (Rattan knots located around the perimeter of the mat)		 *Bugtung** *Mägpujan+* *Sika** *Ämagas** *Ärurug** *Mäläqäg** *Sika** *Timbärangan** *Bugtung** *Kälapi** *Mägpujan+*						
AGRICULTURAL TOOLS								
Tutugda (dibble stick)		*Änibung** *Bänga** *Pisa uriras*		*Code: pat2-64*		*Code: pat2-64a*		The fruits are also used as ingredients for betel chewing.
Tutungan (bamboo stick to propagate fire during the burning of the swiddens)		Various species of bamboo						
Gälit (harvesting knife)		*Sumbiling**						

Gälit (harvesting knife)	*Sumbiling** *Bungtung**			
Wäsäy (traditionally forged axe). Material for the handle	 *Ananiug* *Dikläj* *Mägapis* *Tabinälan*			
Läkut (bark container for the storage of rice seeds) Body Tying material	*Mägbärangan* *Mäglämbung* *Mälbuq* *Sika**	 *Code: pat2-66*	*Code: pat2-65a* *Code: pat2-66a*	 *Mälbuq* o *Malbo* in Tagbanua language is associated with *Elaeocarpus cumingii*
DOMESTIC AND HOUSE UTENSILS				
Suduq (medium-size spoon)	*Bintäwas* *Mälaga* *Mälbäk+*	*Code: pat2-67*	*Code: pat2-67a*	
Luluag (large cooking spoon)	*Ämämlug* *Ginuqu* *Mälaga** *Mälbäk+*	*Code: pat2-68*	*Code: pat2-68a*	
Säsäratan (strainer) Handle Tying material Fibres	*Timbärangan** *Ämagas** *Näpnap**			
Isap o ***burungutan*** (wooden bowl)	*Njug*	*Code: pat2-69*	*Code: pat2-69a*	*Cocos nucifera* is commonly used in cooking. The endosperm is grated and squeezed, and the liquid obtained is boiled with vegetables and other ingredients. The endocarp of the green, unripe fruit contains a sweet refreshing liquid. The fresh endosperm is considered as a delicacy and often

Pänkaqan (coconut grater) A traditional type made entirely of hard wood.	*Äblas* *Änibung** *Bänga** *Tägas**	*Code: pat2-70*	*Code: pat2-70a*	*Ablas* in Tabganua language corresponds to *Vitex pubescent*, see Madulid 2001
A more recent type of coconut grater made of a wooden seat to which it is inserted a metal rounded tip to scrape the endocarp from the coconut shell	*Ägtap* *Läuna*	*Code: pat2-71*	*Code: pat2-71a*	*Agtap* in Tagbanua language correspond to *Neonauclea calycina* (Bartrl.) Merr. (Rubiaceae) see Madulid 2001
Liligidan (a rattan steam in its spiky leaf sheath used as a scraper for cassava)	*Bugtung** *Pärasan*	*Code: pat2-72*	*Code: pat2-72a*	
Läläng̈atan (wooden cutter used to chop tobacco leaves)	Various hard wood species can be used			
Bullais (simple item to remove the tobacco leaves from branches)	*Bungbung**			
Gäntangan (container for the rice)	*Several tree species are used*			*Gäntang* is a local unit of measurement which corresponds to about 2.5 kg of rice. A *Gäntangan*, entirely made of wood, contains approximately this amount of rice. Another type of *gäntangan* is entirely made of rattan fibres. The fibres of *ämagas (Calamus sp.)* are used for the basket's body, the fibers of *sika (Calamus caesius)* are used for the lateral sticks of the basket, the tying material is made of *ärurug (Calamus javensis)* and the base of the basket is made of *kälapi (Calamus merrillii).* Other rattan species can also be used in addition to those mentioned above.
Läsung (mortar)	*Apad apad** *Apugan* *Ägtäp** *Buntalinaw* *Dankaqan+ Däw**	*Code: pat2-73* *Code: pat2-74*	*Code: pat2-73a* *Code: pat2-74a*	Similar plant words such as *dankala* (*Calophyllum inophyllum*) and *dankalan (Sterculia ceramica)* are used by some ethnic groups of Mindoro, see

	Kälasa *Mägpunti* *Natuq** *Sämbulawan** *Tämbilakan**			Madulid 2001.
Laluq (pestle)	*Bangkal* *Buntalinaw** *Bunug* *Dankaqan+* *Läuna+* *Mägpaw* *Märaparäj* *Tulambak*	*Code: pat2-75* *Code: pat2-76* *Code: pat2-77* *Code: pat2-79*	*Code: pat2-75a* *Code: pat2-76a* *Code: pat2-77a* *Code: pat2-78a* *Code: pat2-79a*	In Tagbanua language the local name Tulambak is associated to *Memecylon terminaflorum*, see Madulid 2001. Most probably the Pälawan use the same vernacular name for the same species.
Läudan (water container)	*Batung o Rabuk*	*Code: pat2-80*	*Code: pat2-80a*	Cultivated in various municipalities. Also used for flooring
Läbungan (Malay forge) Chambers ***umbak-umbak*** (stick of the pistons) ***Kärmo*** *(circular and terminal portions of the pistons)*	*Änibung** *Bänga** *Käwuajan** *Mägluja+* *Manabaliq+* *Käwajan** *Manabaliq+* Various hard wood species are used			
Uqusät (pointed item used in the weaving of baskets, flat-winnowed trays, mats, etc.	*Bugtung**			
Särimakädan (torch holder)	*Dädkutan+* *Kämlit**			This is a sort of tripod with a concave portion on the top where the resin torch is inserted
Saläng (torch of resin wrapped in leaves) Species used for the torch's leaves	*Kälapi**			

Species from which exudes and resins are collected	*Pärätungän** *Ängri** *Kälasa** *Lanäj* *Räkak* *Saläng* *Silad** *Udaw-udaw* *Upak-upak*	*Code: pat2-81* *Code: pat2-82*	*Code: pat2-81a* *Code: pat2-82a*	The resin of *räkak* was traditionally used to make long torches for night fishing on the seashores and coral reefs. With one hand the person would hold the torch using the other hand to spear the fish.
ITEMS OF PERSONAL USE				
Äläp *(tobacco container worn on the waist)* ***Sukisuki*** (small tobacco container)	*Bungbung**			*Äläp is constituted by two bamboo tubes. One contains the components for making the fire: a stone and a piece of metal (santikan) as well as the dried material (lublub) used for triggering fire [made from täpikan (Caryota mitis Lour.)] while the other contains the tobacco and the leaves to make cigarettes.* Bee-wax *(kalulut)* is often placed on the top part of the *äläp* and red seeds of a species known as *pinpin* are stuck on it.
Dälaken *(container for the lime 'apug')*				This is entirely made out of sea shell
Nanga (container for tobacco and small amulets)	*Nanga*	*Code: pat2-83*	*Code: pat2-83a*	This object has the same name of the plant used to make it. The seeds of this palm are emptied and a wooden cover is made to close it.
Salapaq (tobacco and betel box)	*Buntälinaw** *Ginuqu** *Mälaga** *Tegas**			Usually the Pälawan use metal *salapaq* made of silver, copper and other metal leagues. These precious heirlooms are part of the family's inheritance (*pusaka*), and were traditionally obtained through exchanges with the Muslims of the Sulu sultanate. Wooden *salapaq* are, in fact, a replica of the metal ones.
Sudaj (comb)	*Ginuqu** *Kälulingaw* *Kulimawa* *Mägdugiang* *Märäitum* *Märäparay+*	*Code: pat2-84* *Code: pat2-85*	*Code: pat2-84a* *Code: pat2-85a*	
Galang o täklang (Bracelet)	*Buntälinaw**			
Kukuät (small flat wooden stick to remove fleas from hairs)	*Bätbat** *Bungbung** *Käwuajan** *Märuwaq**			

Kukuät (small flat wooden stick to remove fleas from hairs)	*Bätbat** *Bungbung** *Käwuajan** *Märuwaq** *Sumbiling**			
Paqis (small knife with curved blade) handle	*Bugtung** *Kämlit** *Mägäritgärit* *Unapung*			 In Tausug language *unapong* corresponds to *Kleinhovia hospita* L. var. Sterculiaceae. See Madulid 2001
Tukäw (long-blade knife) ***Pulu*** (handle)	*Anilaw* *Apugan+* *Asang-asang* *Bäkan* *Gängas* *Kämlit** *Tabuq* *Bunät-bunät*	*Code: pat2-86* *Code: pat2-87* *Code: pat2-88* *Code: pat2-89* *Code: pat2-90* *Code: pat2-91*	*Code: pat2-86a* *Code: pat2-87a* *Code: pat2-88a* *Code: pat2-89a* *Code: pat2-90a* *Code: pat2-91a*	The local plant name *Anilaw* recurs frequently in many Philippine languages and it is associated with different species of various plant families. However, a comparison between different Filipino languages shows that one of the most common species associated with it is *Colona serratifolia*. See Madulid 2001 In several Philippine languages the local name *bakan* refers to *Litsea perrottetii* (Bl.) F.-Vill. and, in Tabanua language, the same name is associated with *Litsea whitfordii* Merr. In Tagbanua language the plant name *bunot bunot* is associated with Commersonia bartramia. See Madulid 2001
Änkap o ***sarong*** (sheath)	*Nangkaq* *Nara* *Unapung* *Apad apad** *Bajug** *Dädkutan+* *Angkukubi** *Mäkärumpi* *Nara**	*Code: pat2-92* *Code: pat2-93*	*Code: pat2-92a* *Code: pat2-93a*	 In Tausug language the plant name unapong is associated with Kleinhovia hospita L. var Hospita (Sterculiaceae) Occasionally the seeds of *pänsar Bixa orellana* (L.) Bixaceae were passed directly on the sheaths to give them a red color.

Rärung (type of back-pack) ***Kuluq*** (strap for the head) ***Kulibaba*** (straps for the shoulders) ***Sanig at talutud*** (back support)	*Bugtung** *Timbärangan** *Tägäp** *Bälinad** *Säjapuq**			
Kuluq **(**mono-use back-pack made of woven leaves.	Various palms			
STATUES OF RITUAL USE				
Täwtäw (anthropomorphic statues) and ***biek-biek*** (zoomorphic pig figures)	*Apugan+* *Dädkutan+* *Kulaj* *Ginuqu** *Mälaga** *Tegas**		Rutaceae	Anthropomorphic and zoomorphic figures are used as '*ungsud*', a sort of ritual exchange. For instance the anthropomorphic figures will be offered in exchange for a patient affected by a certain disease. It is believed that the illness will move away from him/her and 'transfer' instead on the wooden figure. Figures of animal game such as wild pigs are exchanged for the real animal to the 'Master of wild pigs' (*Ampuq biek*) before the hunting starts.
MATERIAL FOR HOUSE CONSTRUCTION	*Äblas* *Aguhu* *Ämpäplut* *Anajam* *Ängkukubi** *Angri** *Änilaw** *Bäbanatuq* *Bakäw* *Banäbaq* *Bangkal** *Bintangur** *Binuawäq*	*Code: pat2-94* *Code: pat2-95* *Code: pat2-96* *Code:pat2-97* *Code: pat2-98* *Code: pat2-99* *Code: pat2-100*	*Code: pat2-94a* *Code: pat2-95a* Code: pat2-96a *Code:pat2-97a* *Code: pat2-98a* Rhizopheraceae *Code: pat2-99a* *Code: pat2-100a*	Low-quality material.

MATERIAL FOR HOUSE CONSTRUCTION	*Äblas*	*Code: pat2-94*	*Code: pat2-94a*	
	Aguhu	*Code: pat2-95*	*Code: pat2-95a*	Low-quality material.
	Ämpäplut	*Code: pat2-96*	Code: pat2-96a	
	Anajam	*Code:pat2-97*	*Code:pat2-97a*	
	*Ängkukubi**			
	*Angri**			
	*Änilaw**			
	Bäbanatuq	*Code: pat2-98*	*Code: pat2-98a*	
	Bakäw		Rhizopheraceae	
	Banäbaq	*Code: pat2-99*	*Code: pat2-99a*	
	*Bangkal**			
	*Bintangur**			
	Binuawäq	*Code: pat2-100*	*Code: pat2-100a*	
	*Märäitum**			
	Märaupas		*Code: pat2-101a*	
	Mämläg		*Code: pat2-102a*	
	Pututan			The plant word *pututan* is found in many Philippine languages and is associated with different plant species. In Cebuano, Ibanag and Tagalog the corresponding scientific species is *Bruguiera gymnorrhiza* (L.) Rhizopheraceae and sometimes to *Bruguiera sexangula* (Tagalog only). However, the same word in Tagalog language can refer to *Bruguiera*
	*Räkak**			
	*Tämbilakan**			
	Unapung+			

LEGEND

The vernacular names of 150 useful plant species, belonging to at least 35 plant families, is reported. Out of these, 66 local species have been scientifically identified, while of an additional 31 plant names only the genera is known. Overall, the number of unidentified plants amounts to 54 species and only the family name of 11 of these are known. Most plants names and uses have been recorded between 1992 and 1996 by Anthropologist Dario Novellino amongst the Pälawan of Barangay Panalingaan, Ransang and Latud, Municipality of Rizal, when he was a visiting research associate (VRA) of the Institute of Philippine Culture (IPC) of the Ateneo de Manila University.

The asterisk symbol (*), following the vernacular name of a plant, indicates that the corresponding scientific name for that species has already been reported elsewhere in the table. For the purpose of not publically disclosing the specific plant species used by Pälawan, the scientific and families names have been substituted by an identification code. When the identification code is associated only to plants' families it means that the latin name of the corresponding species is not known. Where no codes are associated to a vernacular plant name, it means that no scientific identification was possible. Generally, this is because no bibliographic references were available for triangulation and crosschecking and/or because no comparison was possible between the photo taken in the field and relevant photos/sketches of corresponding species found in botanical volumes. The symbol (+) following the vernacular name refers to unidentified plant species which have been listed in the table more than once, being associated with the construction of different objects/artefacts and having multiple uses. The word Ibid signifies that a particular species belongs to the same plants' family of a species mentioned in a preceding part of the table. **Note**: Phonetic transcription of Pälawan names is still under revision.

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ACRONYMS

A&D - Alienable and Disposable Land
AGPI - Agumil Philippines Inc.
ALDAW – Ancestral Land/Domain Watch
CADT - Certificate of Ancestral Domain Title
CALG – Coalition against Land Grabbing
CALT - Certificate of Ancestral Land Title
CAVDEAL - Cavite Ideal International Construction and Development Corporation
CBFMA - Community Based Forest Management Agreement
CENRO - Community Environment and Natural Resources Office
CPO - Crude Palm Oil
DA - Department of Agriculture
DAR - Department of Agrarian Reform
DENR - Department of Environment and Natural Resources
DOLE - Department of Labor and Employment
ECAN - Environmental Critical Area Network
ECC - Environmental Compliance Certificate
EIA - Environmental Impact Assessment
ELAC - Environmental Legal Assistance Centre
FFB - Fresh Fruit Bunches
FPIC - Free Prior Informed Consent
ICCAs – Indigenous Communities Conserved Areas and Territories
ICPO - International Criminal Police Organization (*INTERPOL)*
IPRA - Indigenous Peoples Rights Act
LBP - Land Bank of the Philippines
LGU - Local Government Unit
NATRIPAL - United Tribes of Palawan
NCIP - National Commission on Indigenous Peoples
NGOs - Non-Government Organizations
NIPAS – National Integrated Protected Areas System
NTFPs – Non-Timber Forest Products
MMT - Multi-Partite Monitoring Team
PCA - Philippine Coconut Authority
PCSD - Palawan Council for Sustainable Development
PACBARMA - Protected Area Community-Based Resources Management Agreement
PHP – Philippine Peso
PPOIDC - Palawan Palm Oil Industry Development Council
PPVOMI - Palawan Palm & Vegetable Oil Mills Inc.
PODO - Palm Oil Development Office
POPDC - Philippine Palm Oil Development Council
PPOIC - Philippine Palm Oil Industry Council
SEP - Strategic Environmental Plan

NOTES

1. The project being financed through the support of Non-Timber Forest Products-Exchange Program (NTFP-EP) and the Broderlijk Delen overlapped with another project supported by Rainforest Rescue aiming at empowering oil palm affected communities and strengthening community-based advocacy work.

2. Previous research findings on the social and environmental consequences of oil palm development in Palawan have been compiled into two ALDAW reports, which are available on line:

   http://www.regenwald.org/files/pdf/The-Palawan-Geotagged-Oil-Palm-Report-Part-1.pdf
   http://www.regenwald.org/files/pdf/The-Palawan-Oil-Palm-Geotagged-Report-Part-2.pdf

3. Members of indigenous communities shared with us information on the traditional uses of local plants, since they knew that their knowledge was going to be used for the purpose of defending their rights to land and resources against the expansion of oil palm plantations.

4. These inter-agencies meetings were the direct outcome of a letter of concern jointly signed by indigenous representatives of Palawan and Mindanao that had been protocolled with the Office of the President at Malacañan on 25 July 2013. The letter called for a nation-wide moratorium on oil palm development and for a close monitoring of the current and ongoing activities of oil palm companies; ALDAW was directly engaged in the organization of the meeting between Pälawan delegates and the Higaonon of Bukidnon. Because of this action, the Office of the President officially requested government agencies such as the Commission of Human Rights, the Department of Agriculture, etc. to take proper actions and to carry out further investigation.

5. The content of botanical tables (no.1 and no.2) is based on previous research data collected by Dr. Dario Novellino between 1992 and 1996 when he was a visiting research affiliate (VRA) of the Institute of Philippine Culture (IPC), Ateneo de Manila University. No plants were collected or stored in herbarium for the purpose of this report and during previous research. By and large, scientific identification has been based on the comparison of photos of Pälawan plant species with drawings and images found in botanical volumes, as well through comparison with plants' names found in previous publications, e.g. Revel (1990) and Madulid (2001).

6. On June 25-26, 2009, the 6th National Palm Oil Congress was held in Puerto Princesa City, Palawan. A total of 332 participants and guests composed of various stakeholders, government and private, of the nation's Oil Palm Industry, including some based in Malaysia, attended the activity. Palawan led the number of participants with 120 or 36% of total. During the congress, the former Governor Joel Reyes made the following statement *"…the palm oil industry in southern Palawan did not involve destroying our forests because the areas chosen and planted were areas long eroded and all of these areas have been idle for many years…Unlike in other places, the oil palm industry in Palawan is environmentally friendly…".*

7. Studies by Nicole Revel, Charles Macdonald and Dario Novellino provide insights into the cosmology, practices and ethnobiological knowledge of Pälawan. The descriptions of Pälawan culture and practices provided in this report have been prepared by D. Novellino.

8. Ms. Lenita Nangcod (former ALDAW CO) and a member of the Tagbanua IPs of Aborlan is responsible for the collection of plants-related information among the Pälawan communities of Barangay Pulot (Municipality of Española) and Barangay Iraan (Municipality of Rizal). She has been in charge of cross-checking plant data provided by Dr. Dario Novellino with the information shared by local indigenous collaborators in the areas where ALDAW appraisals took place. Raw field data provided by Ms. Nangcod was further elaborated and revised before being included in this report.

9. Skill mastery does not solely manifests itself with technical precision; it may require an understanding of the entire skill complex that lies behind technical reproduction.

10. The three defining characteristics of ICCAs include**: 1.** A people or community is closely connected to a well defined territory, area or species; **2.** The community is the major player in decision-making

(governance) and implementation regarding the management of the territory, area or species**; 3.** The community management decisions and efforts lead to the conservation of the territory, area or species and associated cultural values. More information on Indigenous People's and Community Conserved Territories and Areas are available on line: *http://www.iccaconsortium.org/*

CURRENCY EQUIVALENTS

Currency Unit - Philippine Pesos (PHP)
USD1 = 40.74PHP (on 7 March 2013)

ACKNOWLEDGMENTS

This report is the outcome of a fruitful engagement with our indigenous collaborators from oil palm impacted municipalities of Southern Palawan. They guided us to the impacted areas and have been with us at every stage of the documentation process. They shared with us both happy and sad moments. Without their hospitality and personal sacrifices this report could have not been made. Our colleagues of Non-Timber Forest Products – Exchange Programme for South and Southeast Asia and their partners, the Broderlijk Delen, earn our deepest appreciation and gratitude Their support to our advocacy struggle has been invaluable as well as their patient in waiting for the completion of this report. We wish to extend our gratitude also to our friends of Rainforest Rescue for continuously supporting our advocacy. Their lobbying at the international level has been extraordinary. Several other people, through their organizations' and web platforms, have helped us in bringing the plight of our indigenous communities to international attention. In this respect, we wish to extent our gratitude to Sophie Grig of the UK-Based Survival International, as well as to Giacomo Rambaldi responsible for the PGIS initiative run by the Technical Centre for Agricultural and Rural Cooperation (CTA) in the Netherlands. A special thank goes to John Akniwanika Schertow, the creator of Intercontinental Cry (IC), an independent and powerful online journal where our campaign actions against mining and oil palm development have been featured in more than one occasion. Our appreciation for the support to and/or the international coverage of our local struggle against oil palm expansion also goes to the staff of GRAIN, to the World Rainforest Movement, Forest Peoples' Programme, Philippine Indigenous Peoples' Links, Borneo Research Council, the International Working Group for Indigenous Affairs, Peoples and Plants International, the Flemish Centre for Indigenous Peoples, the International Society of Ethnobiology (SEB), the global Consortium on Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs), as well to individual supporters such as Prof. James Eder of the Arizona State University, Nicole Revel of the Muséum National d'Historie Naturelle, Charles Macdonald of the Centre National de la Recheche Scientifique and others. We also like to express our thanks to the staff of the Palawan-based Coalition against Land Grabbing (CALG) for sharing with us important documents and the English translation of the petition calling for a moratorium on oil palm expansion. Last but not least, our greatest appreciation goes to Grazia Borrini Feyerabend of the ICCAs Consortium (of which ALDAW is member) for her relentless solidarity, constant availability and enthusiastic encouragement to our mission.

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Report Copyrights

Hon. Jose C. Alvarez,
Governor of Palawan,
Puerto Princesa City,
Palawan, The Philippines

19 November, 2014, Bugnaux (Switzerland)

Hon. Dennis Socrates,
Vice-Governor of Palawan,
Puerto Princesa City,
Palawan, The Philippines

Honorable Governor, Honorable Vice Governor of Palawan,

The ICCA Consortium is an international association under Swiss law uniting federations and organisations of indigenous peoples, local communities and NGOs concerned with the appropriate recognition of the territories and areas conserved by indigenous peoples and local communities (ICCAs) throughout the world. We are a partner organisation of the Secretariat of the Convention on Biological Diversity (CBD), the United Nations Development Programme (UNDP/GEF/SGP) and the International Union for the Conservation of Nature (IUCN).

The ICCA Consortium's worldwide engagement is part of the global recognition of the importance of indigenous peoples' and local community conservation practices to achieving global conservation goals and targets. This recognition is enshrined in the Convention on Biological Diversity, which requires Parties, such as The Philippines, to "recognize the role of indigenous and local community conserved areas in biodiversity conservation and diversification of governance types" (COP 10/ X 31), a role fundamental to reaching Aichi Biodiversity Targets 11 and 18, among others. Various other international agreements – including the United Nations Declaration on the Rights of Indigenous Peoples – lend support to the rights of indigenous peoples and local communities to manage and conserve their territories according to their own values, institutions and practices. Such agreements also recognize indigenous peoples' and community conservation as compatible with, and actually promoting, local sustainable livelihoods and poverty eradication efforts. Drawing lessons from numerous successful examples and the experience of problems around the world, the ICCA Consortium works to support understanding and appropriate practice in the integration of conservation, sustainable livelihoods and the respect of human and indigenous peoples' rights.

On 8 August 2013 we wrote to you communicating our deep concern about the encroachment of oil palm plantations on secondary and primary forest, most clearly evidenced in the Municipality of Quezon, Rizal and Bataraza. We also expressed concern about oil palm expansion encroaching on farmland used by indigenous peoples in Palawan, and the ensuing pollution of water sources. We requested that you listen to the voices of impacted communities and that you impede any further destructive expansion of oil palm in Palawan.

The ICCA Consortium has been following with great attention and considerable concern the recent controversies related to the massive expansion of oil palm plantations in your province, Palawan (the Philippines' 'Last Frontier'). Indeed, we are extremely worried that oil palm companies are planning to convert an area between 15,000 to 20,000 hectares in Palawan's 'Man & Biosphere Reserve', into oil palm monocultures. As we have learned, about 6,000 ha. have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

We are aware that on 29 September 2014, Hon. Dennis Socrates met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, delivered a petition signed by almost 4,300 individuals belonging to oil palm impacted communities, asking for a moratorium to be passed on the expansion of oil palm plantations.

Not only do we support the farmers', cooperatives' and indigenous peoples' call for a moratorium, but we also fully endorse other key demands being made by the petitioners such as:

a) Imposing penalties on Agumil Philippines, Inc. and other oil palm companies, for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371) and Executive Order no. 23 (banning the cutting of trees in natural and residual forest nationwide), and for infringing upon other existing laws;
b) Stopping the planting and tending of oil palms in areas that have already been proven to be part of timberland, of indigenous peoples' ancestral land domain, etc. Proceeding to the eradication of existing oil palms in such locations, as well as to the rehabilitation of deforested areas through the replanting of endemic tree species;
c) Amending and revising the terms and conditions of Production Technical Market Agreements (PTMA) and Management Services Agreements (MSAs) which are solely in favour of Agumil Philippines, Inc and to the disadvantage of farmers' cooperatives;
d) Ensuring that Agumil Philippines, Inc. and other agribusiness enterprises, comply with labour laws in order to improve the condition of plantation workers, while providing them with benefits and adequate forms of insurance;
e) Requesting the Land Bank to create and implement a mechanism to assess and monitor the adverse social, environmental and economic impacts of the oil palm projects that it finances.

Indeed we believe that the commitment of The Philippines Government to resolve food security, to improve the farming economy and to safeguard indigenous peoples' ancestral domains, is not compatible with the ongoing action of converting precious land into oil palm plantations. This practice impoverishes today's communities and creates a polluted and biodiversity-starved environment for the communities of tomorrow. Therefore, we respectfully request your government to use its mandate and respond quickly and responsibly to the recent petition of indigenous peoples and farmers, calling for a moratorium on the expansion of oil palm plantations and the rehabilitation of deforested areas, amongst other key demands enumerated above. This must happen before the adverse socio-ecological implications of oil palm expansion become irreversible.

With our most sincere hopes for a favourable outcome,

Dr. M. Taghi Farvar
President, ICCA Consortium
taghi@cenesta.org

Dr. Grazia Borrini-Feyerabend
Global Coordinator, ICCA Consortium
gbf@iccaconsortium.org

cc:

H.E. Benigno C. Aquino III, President of the Republic of The Philippines

Dr Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)

Mr Ruben S. Bastero, Regional Director RIV (NCIP)

Mrs Dionisia Banua, Commissioner (NCIP)

Hon. Ramon Jesus Paje, Secretary, Department of Environment and Natural Resources

Hon. Proceso J. Alcala, Secretary, Department of Agriculture (DA)

Mr Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)

Mr Nelson P. Devanadera, Executive Director, Palawan Council for Sustainable Development (PCSD)

Mrs Mearl Hilario, PCSD Committee on Tribal Affairs

Mrs Gilda E. Pico, President and CEO, Land Bank of the Philippines

December 9th, 2014

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan
Capitol Building, Rizal Avenue, Puerto Princesa City, 5300
Palawan, Philippines

Dear Governor and Vice Governor of Palawan,

The International Society of Ethnobiology is a global, collaborative network of individuals and organizations working to preserve vital links between human societies and the natural world. Ethnobiologists recognize that indigenous peoples and local communities are critical to the conservation of biological and cultural diversity.

The ISE's Darrell Posey Fellowship Program has had a long-standing relationship with a number of Philippine Indigenous Peoples' organizations and NGOs who have been awarded our Field Fellowships and Small Grants. We have long been aware that the Philippines sets the world an inspiring example of both strong indigenous rights legislation (e.g. the Indigenous Peoples' Rights Act) as well as proactive institutions for conserving bio-cultural diversity (e.g. the Palawan Council for Sustainable Development).

However, we have been following with great attention and considerable concern the recent controversies related to the massive expansion of oil palm plantations in your province ("the Philippines' Last Frontier"). Indeed, we are extremely worried that oil palm companies are planning to convert an area between 15,000 to 20,000 hectares in the Palawan Man & Biosphere Reserve into oil palm monocultures. As we have learned, about 6,000 ha have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

International Society *of* Ethnobiology
PO Box 303 Bristol, Vermont 05443 USA Phone: +1.802.453.6996 Fax: +1.802.453.3420
Email: director@ethnobiology.net url: ethnobiology.net

Oil palm monoculture development is not just a regional Palawan issue, it is a national issue which has already proven to have detrimental consequences in parts of Mindanao, as well as in Bohol and has also brought misery to the life of indigenous peoples and farmers worldwide. Case studies from Eastern Malaysia, Indonesia, Latina America and Africa provide clear examples of the negative impact of oil palm plantations on both the environment and local livelihoods. We hope that this accumulating evidence will persuade your government to put a halt to industrial agricultural schemes that are geared towards export and do not foster local consumption.

Surely, micro-credit programs for small land holders and public investments to support peasant agriculture, family farming, artisanal fishing and indigenous food procurement systems would be better suited to the specific socio-cultural and ecological conditions of Palawan Island. We believe that the commitment of Philippine's government to resolve food security, to improve farmers' economy and to safeguard indigenous peoples' ancestral domains, is not compatible with the ongoing attempt of converting precious forest and agricultural land into oil palm plantations.

We are aware that on 29 September, Hon. Dennis Socrates met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, have delivered a petition signed by almost 4,300 individuals belonging to oil palm impacted communities who are asking to pass a moratorium on the expansion of oil palm plantations.

Not only do we support the farmers', cooperatives' and indigenous peoples' call for a moratorium but we also fully endorse all key demands listed in the 'moratorium petition'. We have been informed that, recently, the petition signed by farmers and indigenous peoples was taken up on First Reading during the 61st Regular Session of the Sangguniang Panlalawigan (the provincial government) and it was then referred to the Committee on Environment for further action. We hope that this move will lead, as soon as possible, to constructive negotiations

between CALG's representatives and concerned government agencies and, finally, to the issuance of a moratorium on oil palm expansion,

We urge your government to act promptly on this, before the adverse and socio-ecological implications of oil palm expansion become irreversible.

Yours sincerely,

Dr. Mary Stockdale

Chair of the Darrell Posey Fellowship Program,
The International Society of Ethnobiology: an Alliance for Bio-cultural Diversity
http://ethnobiology.net/

Copy Furnished:

- Hon. H.E. Benigno C. Aquino III, President of the Republic
- Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)
- Mr. Ruben S. Bastero, Regional Director RIV (NCIP)
- Mrs. Dionisia Banua, Commissioner (NCIP)
- Hon. Ramon Jesus Paje, Secretary Department of Environment and Natural Resources
- Hon. Proceso J. Alcala, Secretary Department of Agriculture (DA)
- Hon. Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)
- Executive Director: Mr. Nelson P. Devanadera, Palawan Council for Sustainable Development (PCSD)
- Mrs. Mearl Hilario, PCSD Committee on Tribal Affairs
- Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

Forest Peoples Programme

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Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

13th October 2014

Dear Governor and Vice Governor of Palawan,

Forest Peoples Programme is an international human rights organization with consultative status at the United Nations (ECOSOC). We are also active members of the Roundtable on Sustainable Palm Oil and thus seek to ensure that all palm oil developments comply with RSPO standards and in particular respect the law, protect human rights and core labour standards, recognize indigenous peoples' and local communities' rights to their lands and uphold their right to give or withhold their free, prior and informed consent to any developments planned on their lands. We note that, compared to most other countries in South East Asia, the Philippines has a progressive Constitution and other laws which, if effectively upheld, should protect these rights.

We have been following with great attention and considerable concern recent controversies related to the rapid expansion of oil palm plantations in Palawan. We have been extremely worried to learn that oil palm companies are now planning to convert an area between 15,000 to 20,000 hectares in the Palawan Man & Biosphere Reserve into oil palm monocultures. We are informed that about 6,000 ha. have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. Local civil society organizations in Palawan have expressed concerns that if oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

We are aware that on 29th September, one of you, Hon. Dennis Socrates met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, delivered a petition signed by almost 4,300 individuals belonging to oil palm-impacted communities who are asking you to issue a moratorium on the expansion of oil palm plantations.

We support the farmers', cooperatives' and indigenous peoples' call for a moratorium. We also fully endorse other key demands being raised by the petitioners themselves such as:

a) Impose penalties on Agumil Philippines, Inc. and other oil palm companies, for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371), Executive Order no. 23 (banning the cutting of trees in natural and residual forest, nationwide) and for infringing other existing laws;

b) Stop the planting and tending of oil palms in areas that have already been proven to be part of timberland, of indigenous peoples' ancestral land domain, etc. And thus proceeding to the eradication of existing oil palms in such locations, as well as to the rehabilitation of deforested areas through the replanting of endemic tree species;
c) Amend and revise the terms and conditions of Production Technical Market Agreements (PTMA) and Management Services Agreements (MSAs) which are solely in favor of Agumil Philippines, Inc and at the disadvantage of farmers' cooperatives;
d) Ensure that Agumil, Philippines Inc. and other agribusiness enterprises, comply with labour laws, in order to improve the condition of plantation workers, while providing them with benefits and adequate forms of insurance;
e) Request the LandBank of the Philippines to create and implement mechanism to assess and monitor the adverse social, environmental and economic impact of the oil palm projects that it finances.

The commitment of Philippine's government to resolve food security, improve farmers' economies and safeguard indigenous peoples' ancestral domains, is not compatible with the ongoing attempt to convert precious land into oil palm plantations without respect for the rights of local communities or sound environmental protections. Therefore, we kindly request your government to respond quickly and responsibly to the recent petition of indigenous peoples and farmers, before the adverse and socio-ecological impacts of oil palm expansion become irreversible.

Your sincerely

Dr Marcus Colchester
Senior Policy Advisor

Copy Furnished:

H.E. Benigno C. Aquino III, President of the Republic
Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)
Mr. Ruben S. Bastero, Regional Director RIV (NCIP)
Dionisia Banua, Commissioner (NCIP)
Hon. Ramon Jesus Paje, Secretary Department of Environment and Natural Resources
Hon. Proceso J. Alcala, Secretary Department of Agriculture (DA)
Hon. Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)
Executive Director: Mr. Nelson P. Devanadera
Palawan Council for Sustainable Development (PCSD)
Mrs. Mearl Hilario, PCSD Committee on Tribal Affairs
Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

IWGIA *International Work Group for Indigenous Affairs*

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

Copenhagen, 4 November 2014

Dear Governor and Vice Governor of Palawan,

We are writing to you to express our deep concern about the plan to convert an area between 15,000 to 20,000 hectares in Palawan Man & Biosphere Reserve into oil palm monocultures. As we have learned, about 6,000 ha. have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

We are aware that on 29 September, Hon. Dennis Socrates has met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, have delivered a petition signed by almost 4,300 individuals belonging to oil palm impacted communities who are asking to pass a moratorium on the expansion of oil palm plantations.

We fully support the farmers', cooperatives' and indigenous peoples' call for a moratorium as well as other key demands being raised by the petitioners themselves, including imposing penalties on Agumil Philippines, Inc. and other oil palm companies, for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371), Executive Order no. 23 (banning the cutting of trees in natural and residual forest, nationwide) and for infringing other existing laws and stopping the planting and tending of oil palms in areas that have already been proven to be part of timberland, of indigenous peoples' ancestral land domain.

We have been informed that the call of indigenous peoples and farmers for a Moratorium will be discussed in the course of forthcoming meetings between CALG representatives and the various committees at the provincial government level. We hope that such consultations will lead to concrete solutions such as the issuance of a province-wide moratorium on oil palm expansion.

Indeed we believe that the commitment of Philippine's government to resolve food security, to improve farmers' economy and to safeguard indigenous peoples' ancestral domains, is not

compatible with the ongoing attempt of converting precious land into oil palm plantations. Therefore, we kindly request your government to respond quickly and responsibly to the recent petition of indigenous peoples and farmers, before the adverse and socio-ecological implications of oil palm expansion will become irreversible.

Yours sincerely,

Orla Bakdal
Executive Director
IWGIA

Copy furnished:

H.E. Benigno C. Aquino III
President of the Republic

Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)

Mr. Ruben S. Bastero, Regional Director RIV (NCIP)

Dionisia Banua, Commissioner (NCIP)

Hon. Ramon Jesus Paje
Secretary Department of Environment and Natural Resources

Hon. Proceso J. Alcala
Secretary Department of Agriculture (DA)

Hon. Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)

Executive Director: Mr. Nelson P. Devanadera
Palawan Council for Sustainable Development (PCSD)

Mrs. Mearl Hilario, PCSD Committee on Tribal Affairs

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We are the global movement for tribal peoples' rights. We help them defend their lives, protect their lands and determine their

Jose C Alvarez
Governor Puerto Princesa,
Palawan
The Philippines

October 16, 2014

Dear Governor Alvarez,

Re: Moratorium on oil palm expansion in Palawan

Survival International, the global movement for tribal peoples' rights, is extremely concerned about the massive expansion of oil palm in Palawan. We are particularly alarmed by the plan to convert between 15,000 and 20,000 hectares into oil palm in the Palawan Man and Biosphere Reserve.

We have received worrying reports that Agumil Philippines Inc. and other oil palm companies are violating the Strategic Environmental Plan and the Indigenous Peoples Rights Act (IPRA), as well as other laws.

As you will know, indigenous peoples and local famers have come together, under the Coalition Against Land Grabbing (CALG), to object to this expansion. They have submitted a petition of almost 4,300 individuals from palm oil affected communities who are asking for a moratorium on the expansion of the plantations.

Survival supports CALG's call for a moratorium and calls on you halt the oil palm expansion and to ensure that the land rights of the tribal peoples of Palawan are respected, as enshrined in IPRA and in international law. This means that no oil palm developments should be taking place on the land of Palawan's indigenous peoples without their free, prior and informed consent.

Yours sincerely,

Stephen Corry
Director

Cc:

H.E. Benigno C. Aquino III, President of the Phillipines
Honorable Dennis Socrates, Vice-Governor of Palawan
Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)
Mr. Ruben S. Bastero, Regional Director RIV (NCIP)
Dionisia Banua, Commissioner (NCIP)
Hon. Ramon Jesus Paje, Secretary Department of Environment and Natural Resources
Hon. Proceso J. Alcala, Secretary Department of Agriculture (DA)
Hon. Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)
Mr. Nelson P. Devanadera Executive Director, Palawan Council for Sustainable Development (PCSD)
Mrs. Merl Hilario, PCSD Committee on Tribal Affairs
Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

WORLD RAINFOREST MOVEMENT
MOVIMIENTO MUNDIAL POR LOS BOSQUES TROPICALES

International Secretariat
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web site: http://www.wrm.org.uy

Montevideo, Uruguay, October 15 2014

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

Dear Governor and Vice Governor of Palawan,

We are writing on behalf of the International Secretariat of the World Rainforest Movement, an international worldwide network that provides support to indigenous peoples and other local forest-dependent and rural communities who are struggling to defend their territories and forests against several forces that threaten them such as logging, mining and the expansion of industrial tree plantations, like oil palm plantations, in an increasing number of countries a severe threat to their livelihoods.

We have been following with great attention and considerable concern the recent controversies related to the massive expansion of oil palm plantations in Palawan. And as you may recall, we sent you last year a letter on this issue prior to the oil palm Inter Agency meeting that took place in August 2013.

Once again, we want to share our concern, this time about the current plans to expand oil palm plantations into an area of around 20,000 hectares. WRM's experience in several countries in relation to oil palm plantations expansion is extremely sad. By visiting in different countries affected indigenous and local communities that we support in their difficult struggles to protect their livelihoods, we have learned and seen that oil palm plantations are not bringing benefits to communities. On the contrary, deforestation and destruction of the ecosystems on which communities rely to guarantee their livelihoods is the rule. Oil palm plantation expansion leads to an increase of extreme poverty, malnutrition and are also a cause of serious health problems that are linked to the high use of agrotoxins.

We are happy to share all our available documentation from several countries in Asia, Africa and Latin America where this position of our organisation is based on. This might be a useful input to the discussions prior to your decision about the proposal to convert into oil palm plantations the aforementioned area of 20,000 hectares. We have been informed that the Indigenous Peoples' and farmers' call for a Moratorium will be discussed in the course of forthcoming meetings between representatives of

the Coalition against Land Grabbing (CALG) and the various committees at the provincial government level involved in this issue. Hence we hope that such consultations will lead to concrete steps to prevent further negative impacts of industrial oil palm plantations, such as the issuance of a province-wide moratorium on oil palm expansion.

We kindly request your government to respond quickly and responsibly to the recent petition of Indigenous Peoples and farmers, before the adverse and socio-ecological implications of oil palm expansion will become irreversible.

Your sincerely,

Winnie Overbeek
International coordinator
World Raiforest Movement.

Copy Furnished:

H.E. Benigno C. Aquino III
President of the Republic

Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)

Mr. Ruben S. Bastero, Regional Director RIV (NCIP)

Dionisia Banua, Commissioner (NCIP)

Hon. Ramon Jesus Paje
Secretary Department of Environment and Natural Resources

Hon. Proceso J. Alcala
Secretary Department of Agriculture (DA)

Hon. Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)

Executive Director: Mr. Nelson P. Devanadera
Palawan Council for Sustainable Development (PCSD)

Mrs. Mearl Hilario, PCSD Committee on Tribal Affairs

Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

People and Plants international

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan
Palawan
The Phillipines

30 October 2014

Dear Governor and Vice Governor of Palawan,

We are writing to express our concern about recent plans to convert an area between 15,000 to 20,000 hectares within the Palawan Man and Biosphere Reserve into oil palm monocultures. We understand that 6,000 hectares have already been cleared for this purpose, endangering biodiversity, and the quality of the water and soils that support the livelihoods of Palawan's local inhabitants. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

We are aware that on 29 September, Hon. Dennis Socrates met with a delegation of members from the Coalition against Land Grabbing (CALG)- an organization representing Palawan's farmers and indigenous peoples- and Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan. During this meeting the authorities were handed a petition signed by almost 4,300 individuals affected by oil palm plantations asking for a moratorium.

We see the implementation of this moratorium as consistent with the Philippine's government legal and moral commitment to safeguard indigenous people's ancestral domains, the ecological integrity of Palawan's protected areas and watersheds and the food security and livelihood of the region's inhabitants. We would also like to extend a plea to the authorities to ensure that any corporate wrong-doing, such as the alleged infringement committed by Agumil Phillipines, Inc. and other companies against the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act No. 8371) and Executive Order No. 23 be appropriately addressed, and that appropriate steps be taken to ensure that such violations do not recur.

PO Box 251 Bristol, VT 05443 USA email: peopleandplants@gmail.com
www.peoplandplants.org

We especially support the clause in the recent petition handed to the authorities of Palawan to stop oil palm expansion in areas of customary land use, including ancestral domains, and that any existing plantations in these areas be removed. Finally, we urge you to demand that LandBank put in place an effective and transparent mechanism to assess and monitor the social, environmental and economic impact of those oil palm projects which it supports.

Respectfully,

Miguel Alexiades
Director

cc./

H.E. Benigno C. Aquino III
President of the Republic

Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)

Mr. Ruben S. Bastero, Regional Director RIV (NCIP)

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Hon. Ramon Jesus Paje
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Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

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tel +44 (0)20 7326 0363
email info@piplinks.org
web www.piplinks.org

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

14 October 2014

Dear Governor and Vice Governor of Palawan,

We have been made aware of the recent controversies related to the massive expansion of oil palm plantations in your Province. We are extremely worried that oil palm companies are planning to convert an area between 15,000 to 20,000 hectares in Palawan Man & Biosphere Reserve into oil palm monocultures. As we have learned, about 6,000 ha. have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

We are aware that on 29 September, Hon. Dennis Socrates met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, have delivered a petition signed by almost 4,300 individuals belonging to oil palm impacted communities who are asking to pass a moratorium on the expansion of oil palm plantations.

We not only support the farmers', cooperatives' and indigenous peoples' call for a moratorium, but we also fully endorse other key demands being raised by the petitioners themselves such as:

a) Imposing penalties on Agumil Philippines, Inc. and other oil palm companies, for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371), Executive Order no. 23 (banning the cutting of trees in natural and residual forest, nationwide) and for infringing other existing laws;
b) Stopping the planting and tending of oil palms in areas that have already been proven to be part of timberland, of indigenous peoples' ancestral land domain, etc. And thus proceeding to the eradication of existing oil palms in such locations, as well as to the rehabilitation of deforested areas through the replanting of endemic tree species;
c) Amending and revising the terms and conditions of Production Technical Market Agreements (PTMA) and Management Services Agreements (MSAs) which are solely in favor of Agumil Philippines, Inc and at the disadvantage of farmers' cooperatives;
d) Ensuring that Agumil, Philippines Inc. and other agribusiness enterprises, will comply with labor laws in order to improve the condition of plantation workers, while providing them with benefits and adequate forms of insurance;
e) Requesting the LandBank of the Philippines to create and implement mechanism to assess and monitor the adverse social, environmental and economic impact of the oil palm projects that it finances.

We believe that the commitment of Philippine's government to resolve food security, to improve farmers' economy and to safeguard indigenous peoples' ancestral domains, is not compatible with the ongoing attempt of converting precious land into oil palm plantations.

We have been informed that the call for a moratorium will be discussed in the course of forthcoming meetings between CALG representatives and the various committees at the provincial government level. Hence we hope that such consultations will lead to concrete solutions such as the issuance of a province-wide moratorium on oil palm expansion.

Therefore, we kindly request your government to respond quickly and responsibly to the recent petition of indigenous peoples and farmers, before the adverse and socio-ecological implications of oil palm expansion will become irreversible.

Yours sincerely,

Andy Whitmore
Coordinator, PIPLinks

Copy Furnished:

H.E. Benigno C. Aquino III
President of the Republic

Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)

Mr. Ruben S. Bastero, Regional Director RIV (NCIP)

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Executive Director: Mr. Nelson P. Devanadera
Palawan Council for Sustainable Development (PCSD)

Mrs. Mearl Hilario, PCSD Committee on Tribal Affairs

Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

Barcelona 14 October 2014

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

Dear Governor and Vice Governor of Palawan,

GRAIN is an international non-governmental organisation based in Barcelona, Spain. In 2012 we were awarded the Right Livelihood Award, popularly known as the Alternative Nobel Prize, by the Swedish Parliament for our "worldwide work to protect the livelihoods and rights of farming communities."

GRAIN has been closely following the land conflicts concerning the expansion of oil palm plantations around the world, particularly in Asia and Africa. Cultivation of oil palms is expanding rapidly around the world. The industrial plantation model concentrates control and profits in the hands of a few multinational companies. This new wave of plantation is seeing local communities around the world lose access to vital land and water resources. They also have to face all the impacts that come with creation of vast monoculture plantations within their territories – pollution from pesticides, soil erosion, deforestation, and labour migration.

We have been following with great attention and considerable concern the recent controversies related to the massive expansion of oil palm plantations in Your Province ("the Philippines' Last Frontier"). Indeed, we are extremely worried that oil palm companies are planning to convert an area between 15,000 to 20,000 hectares in Palawan Man & Biosphere Reserve into oil palm monocultures. As we have learned, about 6,000 ha. have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

We are aware that on 29 September, Hon. Dennis Socrates has met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, have delivered a petition signed by almost 4,300 individuals belonging to oil palm impacted communities who are asking to pass a moratorium on the expansion of oil palm plantations.

Not only we support the farmers', cooperatives' and indigenous peoples' call for a moratorium but we also fully endorse other key demands being raised by the petitioners themselves such as:

a) Imposing penalties on Agumil Philippines, Inc. and other oil palm companies, for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371), Executive Order no. 23 (banning the cutting of trees in natural and residual forest, nationwide) and for infringing other existing laws;

GRAIN, Girona 25, pral., 08010 Barcelona Spain
Tel: (34) 93 301 13 81, Fax: (34) 93 301 16 27
Email: grain@grain.org, Web: http://www.grain.org/

b) Stopping the planting and tending of oil palms in areas that have already been proven to be part of timberland, of indigenous peoples' ancestral land domain, etc. And thus proceeding to the eradication of existing oil palms in such locations, as well as to the rehabilitation of deforested areas through the replanting of endemic tree species;
c) Amending and revising the terms and conditions of Production Technical Market Agreements (PTMA) and Management Services Agreements (MSAs) which are solely in favor of Agumil Philippines, Inc and at the disadvantage of farmers' cooperatives;
d) Ensuring that Agumil, Philippines Inc. and other agribusiness enterprises, will comply with labor laws in order to improve the condition of plantation workers, while providing them with benefits and adequate forms of insurance;
e) Requesting the LandBank of the Philippines to create and implement mechanism to assess and monitor the adverse social, environmental and economic impact of the oil palm projects that it finances.

Indeed we believe that the commitment of Philippine's government to resolve food security, to improve farmers' economy and to safeguard indigenous peoples' ancestral domains, is not compatible with the ongoing attempt of converting precious land into oil palm plantations. Therefore, we kindly request your government to respond quickly and responsibly to the recent petition of indigenous peoples and farmers, before the adverse and socio-ecological implications of oil palm expansion will become irreversible.

Your sincerely,

Henk Hobbelink
Director
GRAIN

Copy Furnished:

- H.E. Benigno C. Aquino III
  President of the Republic
  Dr. Marlea Pinor Munez, Executive Director, National Commission on Indigenous Peoples (NCIP)
- Mr. Ruben S. Bastero, Regional Director RIV (NCIP)
- Dionisia Banua, Commissioner (NCIP)
- Hon. Ramon Jesus Paje
  Secretary Department of Environment and Natural Resources
- Hon. Proceso J. Alcala
  Secretary Department of Agriculture (DA)
- Hon. Euclides G. Forbes and Mr. Carlos B. Carpio (Philippine Coconut Authority - PCA)
- Executive Director: Mr. Nelson P. Devanadera
  Palawan Council for Sustainable Development (PCSD)
- Mrs. Mearl Hilario, PCSD Committee on Tribal Affairs
- Mrs. Gilda E. Pico, President and CEO, Land Bank of the Philippines

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BORNEO RESEARCH COUNCIL

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U.S.A.
Telephone 207-639-3939
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e-mail: brc@borneoresearchcouncil.org www.borneoresearchcouncil.org

Most Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

Dear Governor and Vice Governor of Palawan,

On behalf of the Borneo Research Council, I am writing to express our great concern at the recent widespread expansion of oil palm plantations in Palawan. The Borneo Research Council has as part of its mission the protection of indigenous cultures, their rights to ancestral lands, and the sustainable management of critical ecosystems. Therefore, we are extremely dismayed by the proposed conversion of 15,000 – 20,000 hectares of the Palawan Man & Biosphere Reserve to oil palm monoculture – a region that has been recognized internationally by UNESCO for its important qualities. To clear such a large area of this reserve would cause irreparable damage to regional biodiversity, water quality, and topsoil integrity, and poses a significant threat to indigenous farmers and their communities. It would greatly harm the sustainability of the entire province, the food security of local peoples, and the stability of the local rural economy.

On 29 September, Hon. Dennis Socrates met with a delegation of farmers and indigenous peoples being represented by the Coalition Against Land Grabbing (CALG). CALG's members delivered a petition seeking a moratorium on the expansion of oil palm plantations, which was signed by nearly 4,300 individuals residing in communities that will be impacted. We fully support their request for a moratorium, along with the following demands raised by the petitioners themselves:

a) Imposing penalties on Agumil Philippines, Inc. and other oil palm companies for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371), Executive Order no. 23 (banning the cutting of trees in natural and residual forest, nationwide) and for infringement of other existing laws;
b) Stopping the planting and tending of oil palms in areas that have already been proven to be part of timberland, of indigenous peoples' ancestral land domain, etc., followed by the eradication of existing oil palms in such locations, and the rehabilitation of deforested areas through the replanting of endemic tree species;
c) Amending and revising the terms and conditions of Production Technical Market Agreements (PTMA) and Management Services Agreements (MSAs) which are solely in favor of Agumil Philippines, Inc and at the disadvantage of farmers' cooperatives;
d) Ensuring that Agumil, Philippines Inc. and other agribusiness enterprises will comply with labor laws in order to improve the condition of plantation workers, while providing them with benefits and adequate forms of insurance;
e) Requesting the Land Bank of the Philippines to create and implement mechanism to assess and monitor the adverse social, environmental and economic impact of the oil palm projects that it finances.

In conclusion, we believe that the commitment of the government of the Philippines to safeguard food supplies, to improve the economy of rural farmers, and to protect indigenous peoples' ancestral domains is not compatible with ongoing attempts to convert precious land into oil palm plantations. We earnestly request that your government respond with swift action to the CALG petition in order to halt the irreversible socio-ecological damage that will be the result of oil palm expansion.

Sincerely,

George N. Appell, Ph.D.
President, Borneo Research Council

VCIV, Vlaams Centrum voor Inheemse Volken
Flemish Centre for Indigenous Peoples

Abingdonstraat 17 – 9100 Sint-Niklaas –Belgium
tel. 03/777.55.89 – email : vciv@skynet.be -web: www.vciv.be

30th October 2014

Your Honourable :

Re. : Oil palm expansion – Philippines – Palawan

On September 29th, the Vice Governor of Palawan, Mr. Dennis Socrates, met a delegation of farmers and indigenous peoples, belonging to the Coalition against Land Grabbing (CALG). During the meeting CALG members accompanied by Biship Pedro Arrigo, delivered a petition signed by almost 4.300 individuals belonging to oil palm impacted communities, who are asking to pass a moratorium on the expansion of oil palm plantation.

For your information, oil palm development should never had been initiated in Palawan because of its unique bio-cultural diversity. The whole province was declared by UNESCO a "Mand and Biosphere Reserves.
Oil palm exploitation is endangering biodiversity, water resources, the quality of topsoil and the livelihood of indigenous peoples and traditional farmers, while undermining Palawan local food sovereignty and exacerbating rural poverty.
Oil palm plantations are breaking the contiguity between different and interrelated ecosystems.

Members of indigenous communities in the oil palm impacted municipalities are complaining that common animals have completely disappeared from the impacted areas and the population of birds had dropped dramatically.
Fresh water resources such as fish, shells and shrimps are fast declining.

As far as oil palm development is concerned, there are some questions which need to be answered :
-What will happen to the future generations of indigenous peoples in oil palm impacted areas?
-what will happen to Palawan land after 30 years of oil palm cultivation?
-will traditional owners have sufficient resources to rehabilitate soils that have been subjected to heavy chemical fertilization and herbicides?

Environmental plundering by oil palm companies is not only a crime against nature, but also a crime against culture, that plunders the cultural heritage of the whole nation.

Dear Sir, what needs to take place is a complete stop to all further oil palm expansion and a complete rethinking of government approach towards the expansion of oil palm development.

Therefore, the Flemish Centre for Indigenous Peoples is asking to immediately implement a moratorium on oil expansion in Palawan..

Yours Sincerely,

Martina Roels
For the Flemish Centre for Indigenous Peoples

October 16, 2014

Charles Macdonald, PhD
Centre National de la Recherche Scientifique

To
Most Honorable Jose Chaves **Alvarez**, Governor of Palawan
Honorable Dennis **Socrates**, Vice-Governor of Palawan

Dear Governor and Vice Governor of Palawan,

Having conducted research in Palawan among indigenous peoples since 1970, I have been following with great attention and considerable concern the recent controversies related to the massive expansion of oil palm plantations in Your Province ("the Philippines' Last Frontier"). Indeed, I am extremely worried that oil palm companies are planning to convert an area between 15,000 to 20,000 hectares in Palawan Man & Biosphere Reserve into oil palm monocultures. As we have learned, about 6,000 ha. have already been cleared for this purpose, endangering biodiversity, water resources, topsoil quality and the livelihood of farmers and indigenous peoples, while exacerbating rural poverty. If oil palm expansion is allowed to continue, the environmental and ecological sustainability of the province and people's food security will be severely compromised.

I am aware that on 29 September, Hon. Dennis Socrates has met a delegation of farmers and indigenous peoples being represented by the recently established Coalition against Land Grabbing (CALG). CALG's members, accompanied by Bishop Pedro Arrigo from the Apostolic Vicariate of Palawan, have delivered a petition signed by almost 4,300 individuals belonging to oil palm impacted communities who are asking to pass a moratorium on the expansion of oil palm plantations.

Not only I support the farmers', cooperatives' and indigenous peoples' call for a moratorium but I also fully endorse other key demands being raised by the petitioners themselves such as:

a) Imposing penalties on Agumil Philippines, Inc. and other oil palm companies, for violating the Strategic Environmental Plan (R.A. 7611), the Indigenous Peoples' Rights Act (Republic Act no. 8371), Executive Order no. 23 (banning the cutting of trees in natural and residual forest, nationwide) and for infringing other existing laws;
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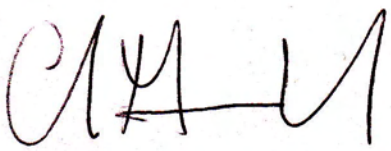
d) Ensuring that Agumil, Philippines Inc. and other agribusiness enterprises, will comply with labor laws in order to improve the condition of plantation workers, while providing them with benefits and adequate forms of insurance;

e) Requesting the LandBank of the Philippines to create and implement mechanism to assess and monitor the adverse social, environmental and economic impact of the oil palm projects that it finances.

Indeed I believe that the commitment of Philippine's government to resolve food security, to improve farmers' economy and to safeguard indigenous peoples' ancestral domains, is not compatible with the ongoing attempt of converting precious land into oil palm plantations. Therefore, I kindly request your government to respond quickly and responsibly to the recent petition of indigenous peoples and farmers, before the adverse and socio-ecological implications of oil palm expansion will become irreversible.

Your sincerely,



Charles J-H Macdonald

Nicole REVEL
UMR 7206
Département Hommes, Natures, Sociétés
Muséum national d'histoire naturelle
57 Rue Cuvier
Paris 75005

Courriel : revel@vjf.cnrs;fr

Paris, le 14 Octobre 2014

MOST HONORABLE JOSE CHAVES ALVAREZ, GOVERNOR OF PALAWAN
HONORABLE DENNIS SOCRATES, VICE-GOVERNOR OF PALAWAN

DEAR GOVERNOR AND VICE GOVERNOR OF PALAWAN,

I ADDRESS THIS LETTER TO YOU AS A FRENCH SCHOLAR WHO HAS WORKED ON THE TRADITIONAL KNOWLEDGE AND KNOW HOW OF THE PALA'WAN SINCE 1970.

SINCE SEVERAL YEARS, I HAVE OBSERVED WITH GREAT CONCERN THE IMPLEMENTATION OF PALM OIL PLANTATIONS IN THE SOUTH OF THE BEAUTIFUL AND EXTREMELY RICH PROVINCE UNDER YOUR CUSTODY TODAY.
WE REMEMBER THAT IN THE PAST, YOU HAVE BEEN SUPPORTING THE VISION FOR A ' STRATEGIC PLAN FOR THE SUSTAINABLE DEVELOPMENT OF PALAWAN' AND SUPPORTED THE CREATION OF A VERY SPECIAL OFFICE DIRECTLY CONNECTED TO THE PRESIDENCY IN MANILA.

TODAY, THIS WIDE EXPANSION FROM 6.000HA. TO 20.000 HA. OF OIL MONCULTURE ON THE LAND OF FARMERS AND INDIGENOUS PEOPLE IS A POLICY IN TOTAL CONTRADICTION WITH YOUR FORMER COMMITMENT FOR THE SUSTAINABILITY OF THE 'LAST FRONTIER' IN YOUR COUNTRY, WHICH HAS ALSO BEEN DECLARED A 'RESERVE OF THE BIOSPHERE' BY UNESCO IN 1993 .

AS A MATTER OF FACT WE ALL KNOW QUITE WELL BECAUSE OF EXAMPLES IN VARIOUS AREAS OF SOUTHEAST ASIA, THAT THIS POLICY WILL ENDANGER BIODIVERSITY, WATER RESOURCES, TOPSOIL QUALITY AND THE LIVELIHOOD OF THE PEOPLE. CONSEQUENTLY, THE ENVIRONMENTAL AND ECOLOGICAL SUSTAINABILITY OF THE SOUTHERN PART OF PALAWAN PROVINCE, FARMERS AND INDIGENOUS PEOPLES 'FOOD SECURITY IN THIS AREA WILL BE SEVERELY AFFECTED.

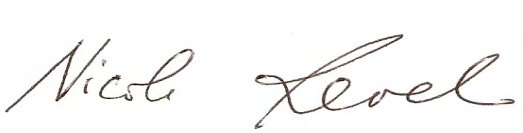
ON 29 SEPTEMBER, HON. DENNIS SOCRATES HAS MET A DELEGATION OF FARMERS AND INDIGENOUS PEOPLES REPRESENTED BY THE RECENTLY COALITION AGAINST LAND GRABBING (CALG), ACCOMPANIED BY BISHOP PEDRO ARRIGO. CALG'S MEMBERS HAVE DELIVERED A PETITION SIGNED BY ALMOST 4,300 PEOPLE WHO LIVE IN COMMUNITIES AFFECTED BY THIS POLICY.
THEY ARE ASKING TO PASS A MORATORIUM ON THE EXPANSION OF OIL PALM PLANTATIONS AND THIS IS NOT ONLY A LEGITIMATE REQUEST, BUT A WISE VISION FOR THE GENERATIONS TO COME.

ALLOW ME TO REMIND THAT THE PRESENT, IMMEDIATE AND FURTHER FUTURE, IS AND WILL BE CONFRONTED TO A POPULATION INCREASE EXTREMELY HIGH IN THE COUNTRY AND CLIMATE CHANGES THAT WILL INTENSIFY INNER MIGRATIONS. THESE PARAMETERSS ARE TO BE TAKEN AS AN INEXORABLE REALITY.

WE TRUST THAT THE COMMITMENT OF PHILIPPINE'S GOVERNMENT TO RESOLVE FOOD SECURITY, TO IMPROVE FARMERS' ECONOMY AND TO SAFEGUARD INDIGENOUS PEOPLES' ANCESTRAL DOMAINS, RESPECTING THE LAW AT THE NATIONAL AND INTERNATIONAL LEVELS, IS A PRIORITY, AND THEREFORE, IS NOT COMPATIBLE WITH THE ONGOING ATTEMPT OF CONVERTING PRECIOUS LAND INTO OIL PALM PLANTATIONS.

BEFORE THE DAMAGE TO THE LAND AND ITS PEOPLE TURNS IRREVERSIBLE, WE ATTEMPT BY THE PRESENT LETTER, TO CONVINCE YOU OF THE NECESSITY TO RESPOND POSITIVELY TO THE RECENT PETITION OF INDIGENOUS PEOPLES AND FARMERS OF YOUR PROVINCE.

Respectfully,



Nicole REVEL
Directeur de recherche émérite au CNRS
(Centre National de la recherche Scientifique), Paris.
Doctor Honoris Causa (Humanities), Ateneo de Manila University.

SCHOOL OF
HUMAN EVOLUTION
& SOCIAL CHANGE
ARIZONA STATE UNIVERSITY

17 October 2014

Honorable Jose Chaves Alvarez, Governor of Palawan
Honorable Dennis Socrates, Vice-Governor of Palawan

Dear Governor Alvarez and Vice Governor Socrates,

I write to respectfully express my growing concern about the continuing expansion of oil palm cultivation in Palawan and, in particular, about the adverse consequences that this expansion is having for the island's biodiversity and for the economic and social well-being of its indigenous and other rural residents.

I admit that I write very much as an outsider. I am American anthropologist with a long history of involvements in Palawan that began when I taught biology for two years at the high school in Puerto. I have since returned many times and devoted a cumulative total of eight years to anthropological field research on issues ranging from the subsistence economy of indigenous forest dwellers and upland farmers, to resource management and local livelihoods in the coastal zone, and to ethnic identity and religious expression among the region's Muslim peoples. Palawan and its peoples, in short, have become my passion and my life's work. In addition, I regularly teach an upper-division course at my university on "International Development and Sustainability". So, I believe that I write with a certain amount of "authority," or at least expertise, but I of course realize that it is very different from your own, and I do not at all wish to sound arrogant!

Briefly put, there have been many positive developments in Palawan in recent years, but the expansion of oil palm cultivation is not one of them. If the leadership of Palawan is serious about promoting sustainable development in the province, as I certainly hope that it is, then it is important not to lose sight of the fact that environmental justice—and, more broadly, social justice—are essential components of sustainability. The expansion of oil palm cultivation promises neither. On the contrary, and while it may promise handsome profits to a few, it only offers—as you have already heard from so many different directions—hardship to the many. I share the same gamut of concerns that the many others who have already written in opposition to the expansion (including the recently-established Coalition against Land Grabbing, or CALG) have already expressed: that the further clearing of land will only erode biodiversity, endanger water resources, and—most crucially, in my view—undermine the livelihoods of indigenous and other local residents and the social fabric of rural life. Palawan faces a stark choice here, between development for the few and development for the many, and only the latter sort of development is truly sustainable in the long run.

School of Human Evolution and Social Change
an academic unit of the College of Liberal Arts and Sciences
PO Box 872402 Tempe, AZ 85287-2402
(480) 965-6215 Fax: (480) 965-7671
shesc.asu.edu

In closing, I can only agree with the well-reasoned position of CALG, that the ongoing attempt to expropriate and convert land in Palawan for purposes of oil palm plantations is incompatible with the announced commitment of the Philippine government to realize greater food security, to improve the livelihood of small farmers and other rural residents, and to safeguard the ancestral domains of indigenous peoples. I urge the provincial government to respond quickly and responsibly to these circumstances by declaring a moratorium on the further expansion of oil palm cultivation before yet more damage has been done to the ecological well-being of Palawan and to the livelihoods of its indigenous and other local residents.

Sincerely,

James F. Eder
Professor, Anthropology
School of Human Evolution & Social Change
Arizona State University
Tempe, AZ 85287-2402
USA

Copy furnished:

H.E. Benigno C. Aquino III
President of the Republic

Dr. Marlea Pinor Munez
Executive Director, National Commission on Indigenous Peoples (NCIP)

Mr. Ruben S. Bastero
Regional Director RIV (NCIP)

Ms. Dionisia Banua
Commissioner (NCIP)

Hon. Ramon Jesus Paje
Secretary, Department of Environment and Natural Resources (DENR)

Hon. Proceso J. Alcala
Secretary, Department of Agriculture (DA)

Hon. Euclides G. Forbes and Mr. Carlos B. Carpio
Philippine Coconut Authority (PCA)

Mr. Nelson P. Devanadera
Executive Director , Palawan Council for Sustainable Development (PCSD)

Mrs. Mearl Hilario
PCSD Committee on Tribal Affairs

Mrs. Gilda E. Pico
President and CEO, Land Bank of the Philippines

cc: Sec 939-66-26 2013

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
RECEIVED
JUN 25 2013
RECORDS MGT. & DOCUMENTS DIV

Office of the President
Date 6-25 Time 11:15a
R E 1 3 2 3 3 2 8
Received by

His Excellency Benigno Aquino III
President
Republic of the Philippines

Your Excellency,

9284501 local
9844501 local 206

ENDORSMENT OF OUR INDIGENOUS PEOPLES FROM BUKIDNON, AGUSAN DEL NORTE AND PALAWAN TO THE INTERNATIONAL PETITIONS SUPPORTING OUR CLAIMS TO LAND AND RESOURCES AGAINST THE EXPANSION OF OIL PALM PLANTATIONS

We the representatives of the Higaonon of Agusan del Norte and in particular of the following municipalities: Las Nieves, Buenavista, Nasipit, Carmen (Agusan del Norte). **We** the Higaonon claimants of AGMIHICU Ancestral Domain in Barangay Hagpa, Municipality of Impasugong (Bukidnon) and **We** the representatives of Indigenous Communities of Palawan Province met on 21 and 22 June 2013 to discuss the problems experienced by our respective communities in relation to the proposed expansion of oil palm plantations in our ancestral territory.

We are deeply concerned about the government plan to make available an additional 1 million hectares for oil palm development in Mindanao to foreign investors and we request, in accordance to the Republic Act 8371 (IPRA Law), to be consulted on any decision to be taken in this direction and which will involve the conversion of portions of our territories into oil palm plantations.

We further support and welcome the global campaign launched by our international partner organizations to support our claims to land and resources against oil palm development.

We further urge the government to call for a nation-wide moratorium on oil palm development and impose a close monitoring on the current and ongoing activities of oil palm companies such as A. Brown in order to ensure their compliance to acceptable environmental and human rights standards.

COMMISSION ON HUMAN RIGHTS OF THE PHILIPPINES
Field Operations Office
RECEIVED
Date: 6-25-13
Time:
By:
No.:

Malaybalay, 22 ~~January~~ JUNE 2013

For the Municipalities of Las Nieves, Buenavista, Nasipit, Carmen (Agusan del Norte)

Datu Manlig-onan (Rolando S. Lanapan)

OFFICE OF THE CHAIRPERSON, COMMISSION ON HUMAN RIGHTS
RECEIVED
BY:
DATE: 6/25/13
TIME: 3:10

OFFICE OF THE COMMISSIONER
JUN 25 2013

RECEIVED
2 5 JUN 2013
OFFICE OF THE CHAIRPERSON

Fax # 9290102 Tel # 9285655
Email: chair.rosales.chr@gmail.com

RECEIVED
Name
JUN 25 2013
DEPARTMENT OF AGRICULTURE

For the Municipality of Impasugong (Bukidnon)

Datu Mankulangan Banuyan

mcomatang

Datu Amay Mantangkilan Cumatang

For the Province of Palawan

Gandelan Artiso Mandawa

Narlito Candal

Copy furnished:

Mr. Romeo Dorado, Palawan Council for Sustainable Development (PCSD)
DENR
DA
PCA
NCIP
Cong. Baguilat, Teddy Jr. Representative, House of Representatives
Commission on Human Rights
Governors and Mayors of Palawan
Governors and Mayors of Mindanao

See content of attached petitions launched through Rainforest Rescue, Care.org and Change.org platforms with related 100,000 online signatures and copies of the Aldaw oil palm geotagged report 2013
The petitions against oil palm development are available on the following websites:

http://www.thepetitionsite.com/797/568/375/philippines-stop-the-plundering-of-indigenous-territories-by-oil-palm-plantations/

https://www.rainforest-rescue.org/mailalert/915/our-environment-is-worth-more-than-palm-oil?mt=1579&v=1&ref=nl

www.change.org/petitions/governor-baham-mitra-stop-oil-palm-expansion-on-palawan-unesco-man-biosphere-reserve#share

Pls. REPLY TO ARTISO MANDAWA c/o NATRIPAL
MACAWILI ROAD, BANCAO BANCAO,
PUERTO PRINCESA CITY, PALAWAN 5300
TELEFAX 048 - 4336573
E-MAIL : aldaw.indigenousnetwork@gmail.com

Republic of the Philippines
OFFICE OF THE PRESIDENT
NATIONAL COMMISSION ON INDIGENOUS PEOPLES
PROVINCIAL OFFICE
Beside Barangay Hall, Santa Monica, Puerto Princesa City,
Palawan

AUGUST 15, 2013

THE MANAGER
Palawan Palm and Vegetable Oil Mills, Inc. Palawan Operation
Barangay Maasin, Brooks Point, Palawan

Greetings !

This is to inform you that your Palm Oil Plantation was established within the Claimed Ancestral Domain of Tagbanua and Pala'wan Tribes in fifteen (15) Barangays of five (5) Municipalities in Southern Palawan as per records of this office. The plantation that overlap the Ancestral Domain areas should have compliedwith the Certification Pre- Condition as defined in Section 59 of the IPRA or Indigenous Peoples Rights Act, R.A. 8371.(Atteched the letter from HON. ARTESO MANDAWA, SB-Member of Brooks Point, Palawan to President BENIGNO AQUINO, III. and endorsement of Ancestral Land/Domain Watch volunteer to NCIP Provincial Officer ANGELO S. SALLIDAO of Provincial Office, Puerto Princesa City, Palawan

The Ancestral Domain Overlapped by Palm Oil Plantation in Southern Palawan are as follows

1. Municipality of Aborlan, Tagbanua Tribe CADT

    1. Bgy. Cabigaan
    2. Bgy. Barake
    3. Bgy. Sagpangan
    4. Bgy. Iraan

NCIP PALAWAN
RELEASED
Date 1-10-14 Time

2. Municipality of Quezon, Pala'wan Tribe CADT

    5. Bgy. Aramaywan
    6. Bgy. Panitian
    7. Bgy. Tagusao – CALT
    8. Bgy. Sowangan
    9. Bgy. Maasin

3. Municipality of Sofronio Espanola, Pala'wan Tribe CADT

    10. Bgy.Labog

4. Municipality of Brooks Point, Pala'wan Tribe CADT

    11. Bgy Maasin
    12. Bgy. Calasaguen

5. Municipality of Bataraza, Pala'wan Tribe CADT

13. Bgy. Igang-Igang
14. Bgy. Sandoval
15. Bgy. Ocayan
16. The mt Sarong area

Accordingly, the NCIP- Palawan is advising you to comply with Section 59 Certification Precondition, of the Indigenous Peoples Rights Act 8371. Which provides, that:

All departments and other governmental agencies shall henceforth be strictly enjoined from issuing, renewing, or granting any concession, license or lease, or entering into any production- sharing agreement, without prior certification from the NCIP that the area affected does not overlap with any ancestral domain. Such certification shall only be issued after a field – based investigation is conducted by the Ancestral Domains Office of the area concerned. Provided further, that no department, government agency or government – owned or – controlled corporation may issue new concession, license, lease, or production sharing agreement while there is a pending application for a CADT; Provided, finally that the ICCs/IPs shall have the right to stop or suspend, in accordance with this Act, any project that has not satisfied the requirement or this consultation process.

To help you process your compliance, you may coordinate with the NCIP – Palawan Office at Bgy. Sta. Monica, near Bgy. Sta Monica Covered Gym, Puerto Princesa City. Please provided your data regarding the ongoing project development.

Prepared by :

DOMINADOR D. OPRAS
TAA II/ Environment
Alternate Focal Person

NCIP PALAWAN
RELEASED
Date _____ Time _____
By: _____

NOTED BY:

ENGR. ROLDAN V. PARANGUE
Provincial Officer
NCIP - Palawan

Republic of the Philippines
OFFICE OF THE PRESIDENT
PALAWAN COUNCIL FOR SUSTAINABLE DEVELOPMENT

WECAN do it together

SEP CLEARANCE

No. POP-032510-020

Pursuant to the mandate of the Palawan Council for Sustainable Development (PCSD) under Republic Act 7611 and concurred by the Department of Environment and Natural Resources (DENR) as provided in its Memorandum of Agreement with PCSD dated 29 December 1994, this PCSD Clearance is issued to:

INTEGRATED PALM OIL PLANTATION DEVELOPMENT, PRODUCTION AND PROCESSING PROJECT

Name of Project

Bgy. Maasin, Brooke's Point, Palawan

Project Location (Street, Sitio, Barangay, Municipality)

PALAWAN PALM AND VEGETABLE OIL MILLS INC. (PPVOMI), AGUMIL PHILIPPINES INC.-PALAWAN OPERATION
Represented by: Mr. Narciso Ponciano

Name of Proponent

Km. 172, Bgy. Maasin, Brooke's Point, Palawan

Address of Proponent

This Clearance is approved this 25th day of March 2010 in Puerto Princesa City.

APPROVED:

MARIO JOEL T. REYES
Chairman, PCSD

O.R. No. : 6499838
Date : May 4 2010
Amount: P4,350

Not Valid Without PCSD Official Seal
(PLEASE SEE OVERLEAF FOR THE TERMS AND CONDITIONS OF THIS CLEARANCE)

LIST OF EXISTING PALM OIL PLANTATION IN THE MUNICIPALITY OF QUEZON AND RIZAL WITHIN THE ADMINISTRATIVE JURISDICTION OF CENRO QUEZON, PALAWAN

LOCATION	PARCEL	A&D	TIMBERLAND			TOTAL (Has.)
			Outside PA	PA(MMPL)	CADT	
Quezon Municipality						
1. Berong	I				36.4599	
	II				2.3710	
	III				58.8452	
	IV				39.4375	137.1136
2. Aramaywan	I		6.3809			6.3809
3. Isugod	I	2.8296				
	II	1.7045				4.5341
4. Maasin	I	14.6750				14.6750
5. Panitian	I	2.6614				
	II	1.7444				
	III	10.0381				
	IV	7.3173				
	V	3.6432				
	VI	3.1666				
	VII	11.0267				39.5977
6. Tagusao	I	5.1401				
	II	15.4307				
	III		3.3011			
	IV	14.9145	13.000			51.7873
Rizal Municipality						
1. Iraan	I		3.7670	5.5612		
	II			2.4523		
	III			4.4490		12.4625
2. Panalingaan	I				11.6674	
	II				1.3143	12.9817
	TOTAL	**94.2930**	**26.4490**	**8.6955**	**150.0953**	**279.5328**

Prepared by:

CESAR B. SANTOS
Forester I

Checked and verified by:

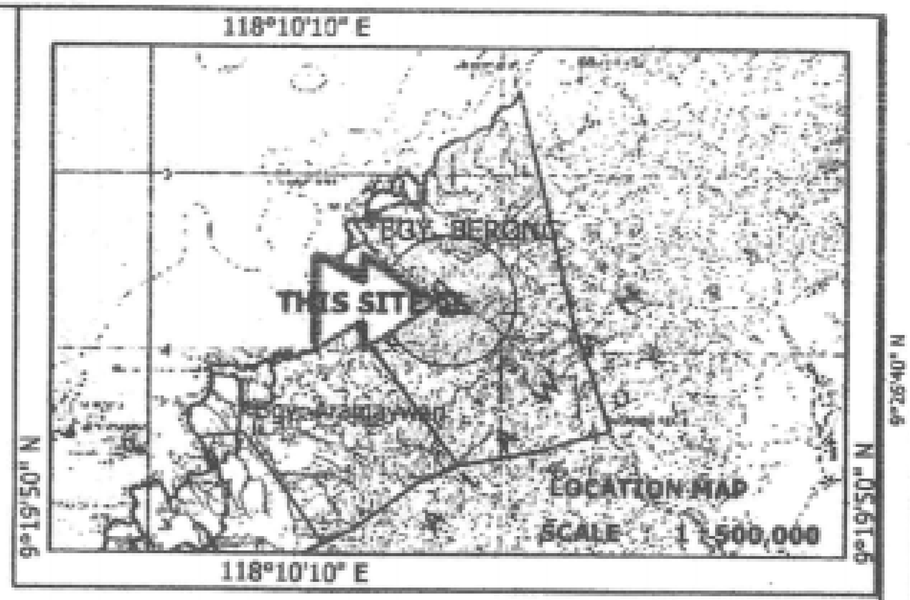
LORETO D. RODRIGUEZ
Chief, FMS

Attested by:

FERNANDO T. TACTAY
Community Environment and
Natural Resources Officer

118°14'40" E

9°26'40" N



Expansion Area 1
(Proposed)
58.8452 has.

Portion of Timberland
Block-A, Proj. No. 13-A
LC Map No. 2414

Existing Plantation 1
36.4599 has.

Expansion Area 2
(Proposed)
39.4375 has.

Existing Plantation 2
2.3710 has.

Reference Map:
- LC Map No. 2414

118°14'40" E

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
R4 - MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan

NORTH

MAP

Showing the projection
of the area intended for
Palm Oil Plantation Development
within CADT (Pending Approval) Area of

TAGBANUA INDIGENOUS
CULTURAL COMMUNITY

Bgy. Berong, Quezon, Palawan

AREA:

Existing Plantation 1	-	36.4599 has.
Existing Plantation 2	-	2.3710 has.
Expansion Area 1	-	58.8452 has.
Expansion Area 2	-	39.4375 has.

SCALE : 1:25000

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

For. I CESAR B. SANTOS
Chief, Forest Engineering and
Infrastructure Unit

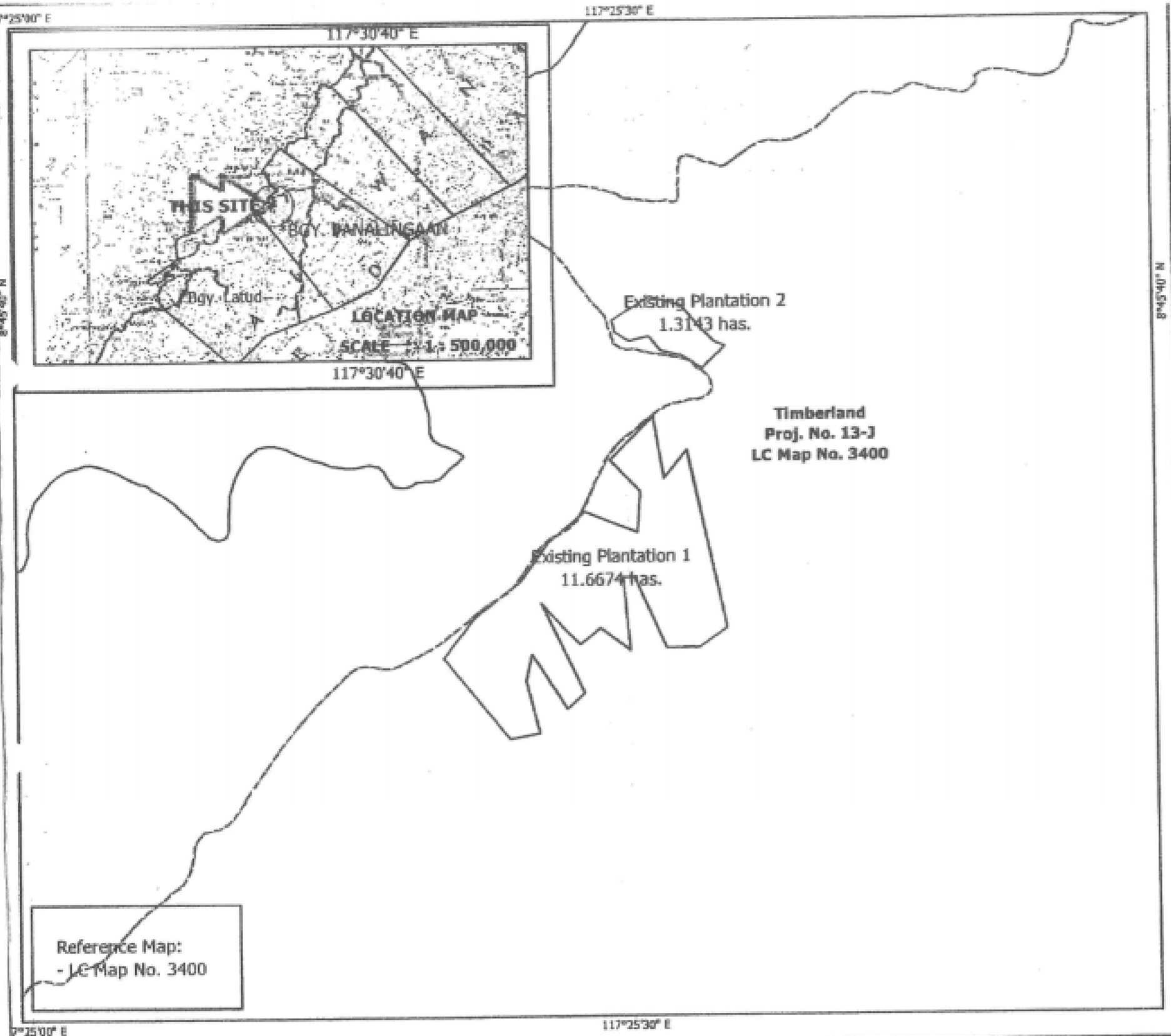
Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TACTAY
Community Environment and
Natural Resources Officer

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
R4 - MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan



NORTH

MAP

Showing the projection of the area intended for Palm Oil Plantation Development within Timberland

Bgy. Panalingaan, Rizal, Palawan

AREA:

Existing Plantation 1	-	11.6674 has.
Existing Plantation 2	-	1.3143 has.

SCALE : 1:10000

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

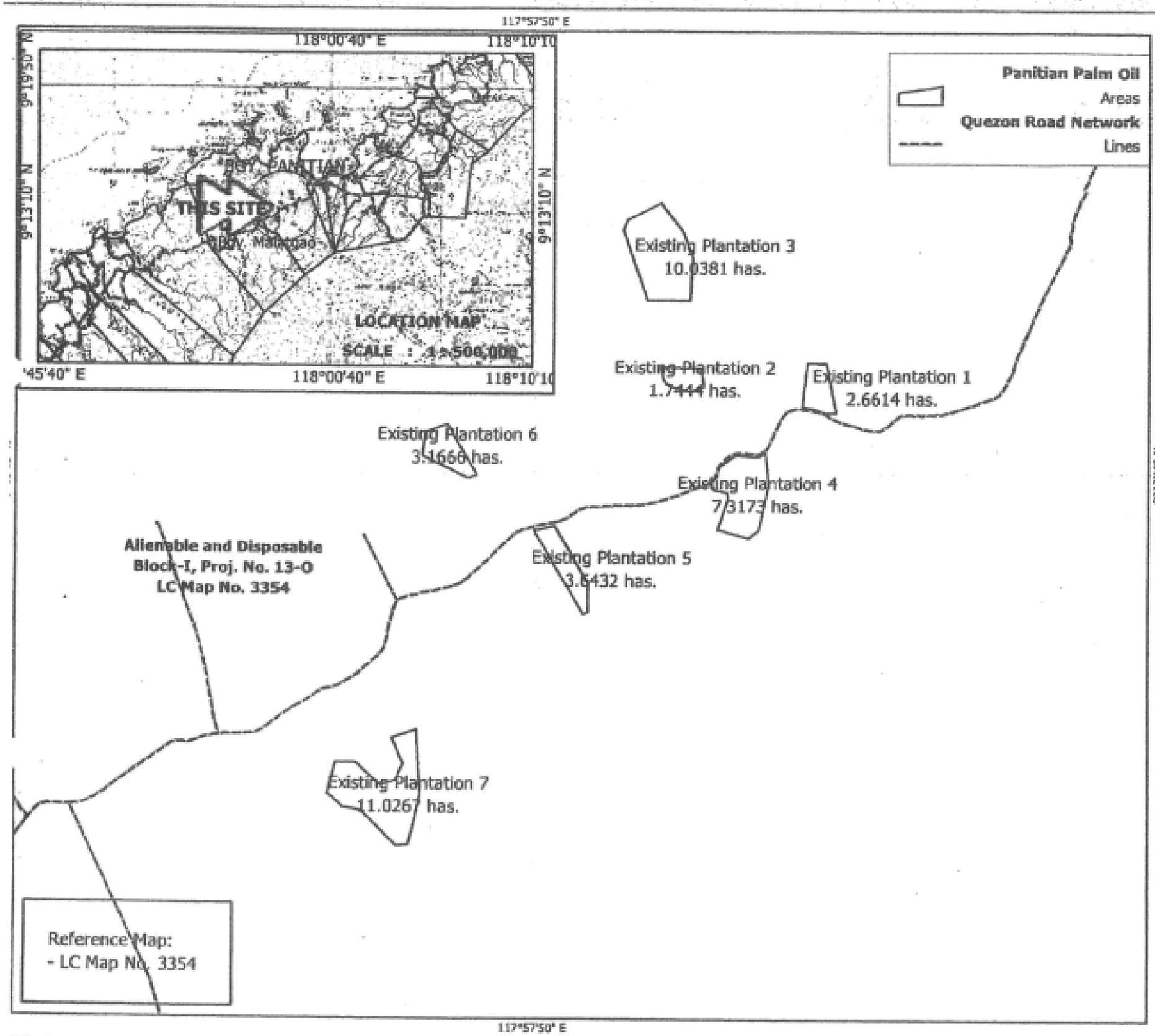
For: CESAR B. SANTOS
Chief, Forest Engineering and Infrastructure Unit

Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TACTAY
Community Environment and Natural Resources Officer



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IV-A - MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan

NORTH

MAP

Showing the projection of the area intended for Palm Oil Plantation Development within Alienable and Disposable Land

Bgy. Panitian, Quezon, Palawan

AREA:

Existing Plantation 1	-	2.6614 has.
Existing Plantation 2	-	1.7444 has.
Existing Plantation 3	-	10.0381 has.
Existing Plantation 4	-	7.3173 has.
Existing Plantation 5	-	3.6432 has.
Existing Plantation 6	-	3.1666 has.
Existing Plantation 7	-	11.0267 has.

SCALE : 1/25000

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

For. I CESAR B. SANTOS
Chief, Forest Engineering and Infrastructure Unit

Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TACTAY
Community Environment and Natural Resources Officer

117°44'20" E

Iraan Palm Oil
Areas
Rizal - Road Network
Lines
Mt Matalingahan Protected Landscape Area
Lines

Existing Plantation
Outside PA
3.7670 has.

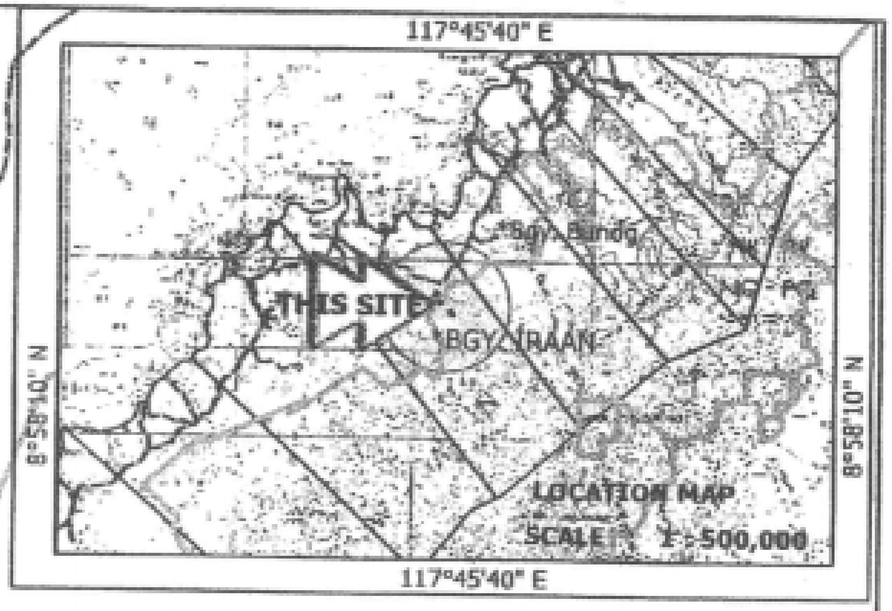
Existing Plantation 1
within PA
1.4788 has.

Timberland
Project No. 13-J
LC Map No. 3400

Existing Plantation 2
within PA
2.4523 has.

Mt. Mantalingahan Protected Landscape Area

Existing Plantation 3
within PA
4.4490 has.



8°1'0" N

117°44'20" E

Reference Map:
- LC Map No. 3400

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IV-MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan

NORTH

MAP

Showing the projection of the area intended for Palm Oil Plantation Development within Timberland and Mt. Mantalingahan Protected Landscape Area

Bgy. Iraan, Rizal, Palawan

AREA:

Within Protected Area:		
Existing Plantation 1	-	1.4788 has.
Existing Plantation 2	-	2.4523 has.
Existing Plantation 3	-	4.4490 has.
Outside Protected Area:		
Existing Plantation	-	3.7670 has.

SCALE : 1:20000
Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

For: I CESAR B. SANTOS
Chief, Forest Engineering and
Infrastructure Unit

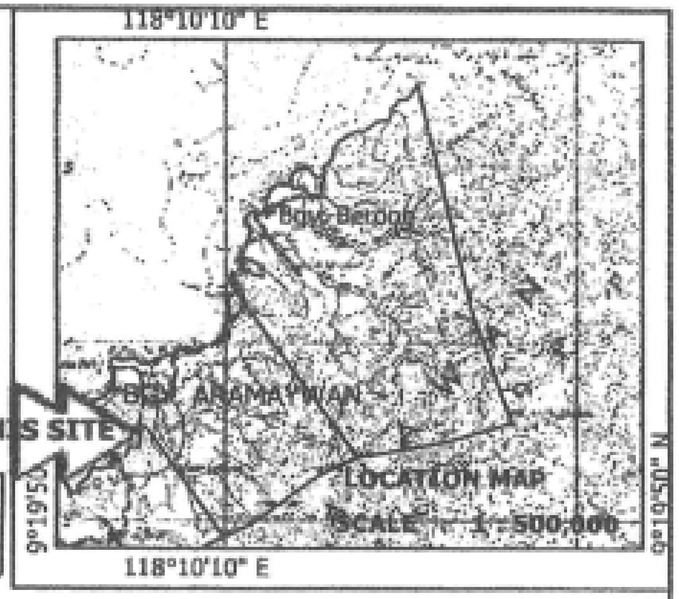
Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TAETAY
Community Environment and
Natural Resources Officer

Aramaywan Palm Oil
Areas
Quezon Road Network
Lines



Portion of Timberland
Block-A, Proj. No. 13-A
LC Map No. 2414

Bgy. Aramaywan
Existing Plantation
6.3809 has.

Reference Map:
- LC Map No. 2414

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IVA - MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan

NORTH

MAP

Showing the projection of the area intended for Palm Oil Plantation Development within Timberland

Bgy. Aramaywan, Quezon, Palawan

AREA:

Bgy. Aramaywan
Existing Plantation - 6.3809 has.

SCALE : 1:5000
Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

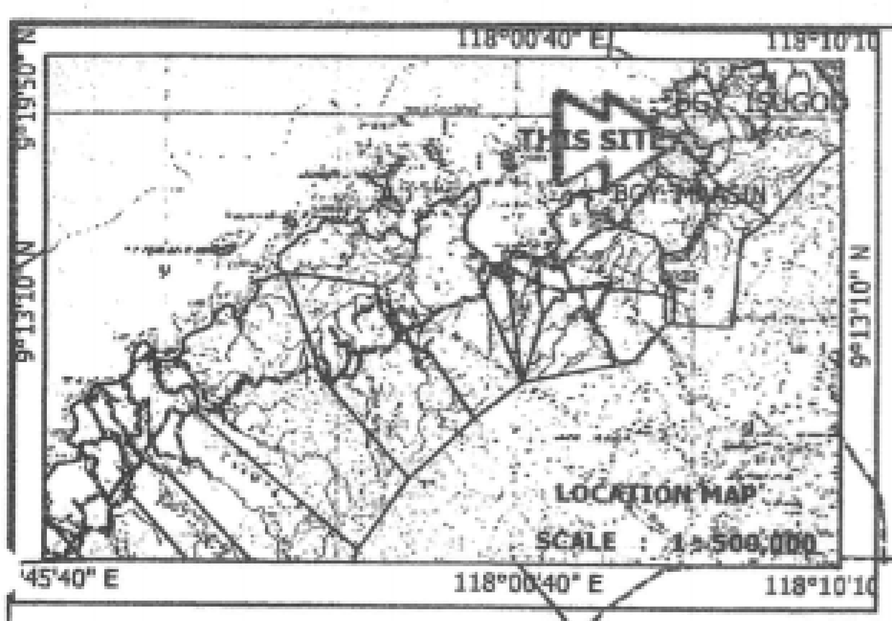
For: CESAR B. SANTOS
Chief, Forest Engineering and
Infrastructure Unit

Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TACTAY
Community Environment and
Natural Resources Officer



118°06'00" E

Isugod-Maasin Palm Oil
Areas
Quezon Road Network
Lines

BGY. ISUGOD

Bgy. Isugod
Existing Plantation 1
2.8296 has.

Bgy. Isugod
Existing Plantation 2
1.7045 has.

Alienable and Disposable
Block-I, Proj. No. 13-B
LC Map No. 2653

Bgy. Maasin
Existing Plantation
14.6750 has.

9°18'00" N

9°18'00" N

BGY. MAASIN

Reference Map:
- LC Map No. 2653

118°06'00" E

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IM - MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan

NORTH

MAP

Showing the projection of the area intended for Palm Oil Plantation Development within Alienable and Disposable Land

Bgy. Isugod and Bgy. Maasin
Quezon, Palawan

AREA:

Bgy. Maasin		
Existing Plantation	-	14.6750 has.
Bgy. Isugod		
Existing Plantation 1	-	2.8296 has.
Existing Plantation 2	-	1.7045 has.

SCALE : 1:20000

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

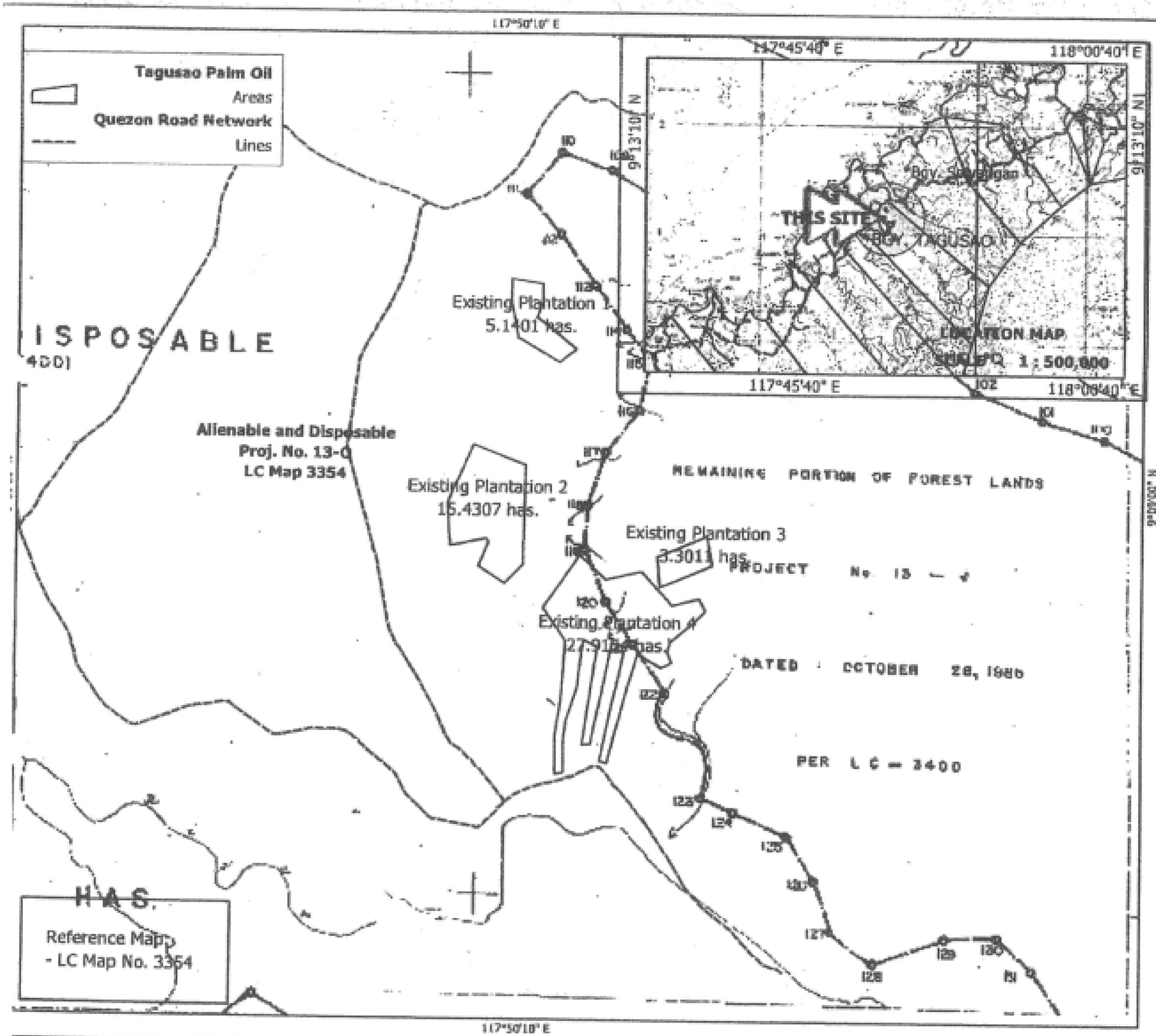
For. I CESAR B. SANTOS
Chief, Forest Engineering and Infrastructure Unit

Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TACTAY
Community Environment and Natural Resources Officer



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IM - MIMAROPA REGION
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Quezon, Palawan

NORTH

MAP

Showing the projection of the area intended for Palm Oil Plantation Development within Alienable and Disposable Land and Portion of Timberland

Bgy. Tagusao, Quezon, Palawan

AREA:

Existing Plantation 1	-	5.1401 has.
Existing Plantation 2	-	15.4307 has.
Existing Plantation 3	-	3.3011 has.
Existing Plantation 4	-	27.9154 has.

SCALE : 1:25000
Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : Luzon (Philippines excluding Mindanao)

Digitized by:

For: CESAR B. SANTOS
Chief, Forest Engineering and Infrastructure Unit

Checked and Verified:

LORETO D. RODRIGUEZ
Chief, Forest Management Services

Attested by:

FERNANDO T. TACTAY
Community Environment and Natural Resources Officer

13

Republic of the Philippines
Department of Justice
OFFICE OF THE PROVINCIAL PROSECUTOR
Province of Palawan
City of Puerto Princesa

PROVINCIAL PROSECUTION OFFICE
PALAWAN
RECEIVED
BY:
DATE: 2-6-14
TIME: 2:00 PM

LORETO D. RODRIGUEZ
Plaintiff

NPS Docket. No. IV-08-INV-13B-0096

-versus-

for violation of
Section 68 of PD 705
as amended

JAIME YAP Jr y AMAR
RAMLY A. JAMIL
EFREN U. DANGLONG
JUANITO DANGLONG
Accused

CRIMINAL COMPLAINT

THE UNDERSIGNED, under oath, accuses JAIME A. YAP Jr., Area Project Manager of Palawan Palm and Vegetable Oil Mills Inc. with Field Office, Poblacion Quezon, Palawan, RAMLY A. JAMIL, Area Supervisor, Palawan Palm and Vegetable Oil Mills Inc., So. Tungib, Berong Quezon, Palawan, JUANITO DANGLONG, Leadman, Palawan Palm and Vegetable Oil Mills Inc., So. Tungib, Berong, Quezon, Palawan and EFREN U. DANGLONG, President, Berong Oil Palm Producers Cooperative, Berong, Quezon, Palawan for violation of Section 68 of PD 705 as amended committed as follows:

That on or about November 13, 2013 at Sitio Tungib, Berong, Quezon, Palawan, the Palawan Palm and Vegetable Oil Mills Inc., led by their Area Project Manager JAIME A. YAP Jr. implemented under Land Lease Agreement with Berong Oil Palm Producers Cooperative, headed by EFREN U. DANGLONG, and within the jurisdiction of this Honorable Court, the above named accused conspiring confederating together and mutually helping one another, did then and willfully cleared and cut several trees with the use of heavy equipment and manual labor paid by Palawan Palm and Vegetable Oil Mills Inc. with intent to develop a palm oil plantation for their personal gain without having first secured and obtained the necessary permit or legal supporting documents to cut several trees to the damage and prejudice of the Philippine Government in the amount of Eighteen Million Nine Hundred Six Thousand Two Hundred Ninety Four and Fifty Centavos (P 18, 906, 294. 50)

This is an Environmental Case, Contrary to Law.

LORETO D. RODRIGUEZ
Chief, FMS

Approved for Filing:

FERNANDO T. TACTAY
CENRO

WITNESSES

1. FR Marlo Morano - CENRO Quezon, Palawan
2. FR Mario Soriano - CENRO Quezon, Palawan
3. FR Jesus Nuñez - CENRO Quezon, Palawan
4. BG Dennis del Rosario - Berong, Quezon, Palawan
5. BG Tanie Briones - Berong, Quezon, Palawan

ANNEXES:

1. Annex "A" - Affidavit of FR Morano
2. Annex "B" - Affidavit of FR Soriano
3. Annex "C" - Affidavit of FR Nuñez
4. Annex "D" - Affidavit of BG del Rosario
   Annex "E" - Affidavit of BG Briones
5. Annex "F" - Statement of Timber Destroyed
6. Annex "G" - Inventory of Felled Logs
7. Annex "H" - Map of the Area
8. Annex "I" - Pictures of the Area Including the Damaged Trees
9. Annex "J" - Land Lease Agreement
10. Annex "K" - Letter Report of Mike Marcelo

SUBCRIBED AND SWORN to before me this ____ day of FEB 06 2014, 2014 at Puerto Princesa City, Palawan.

CARMELINA E. CENIZA-GUEVARRA
ASSISTANT PROVINCIAL PROSECUTOR
Administering Officer

Republic of the Philippines
Department of Environment and Natural Resources
Region IV-B (MIMAROPA)
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

OFFICE OF THE DENRO
BROOKE'S POINT PALAWAN
RECEIVED
DATE 1-30-14
CH 421-14
BY

MEMORANDUM

FOR : The Community Environment and Natural Resources Officer

THRU : The Chief, Forest Management Services

FROM : Forester Franklin M. Aquino
Forest Ranger Bernami M. Manunggay
Admin. Aide III Herman A. Paraiso

SUBJECT : **REPORT ON THE ALLEGGED ILLEGAL CUTTING / CLEARING OF TREES OF AGUMIL PHILS., INC. AND SAN ANDRESS AT BGYS SANDOVAL AND CULANDANUM, BATARAZA, PALAWAN.**

DATE : January 27, 2014

This pertains to your Memorandum dated January 17, 2014 and received by the undersigned on January 20, 2014 regarding the above-cited subject. Please be informed that the undersigned Forest Officers conducted an actual investigation with the following information, facts and recommendations to wit :

1. That the team, thru cellphone coordinated to the representative of Nagkakaisang Tribo ng Palawan (NATRIPAL) and to the Chairman of Ancestral Domain Watch (ALDAW) as to the schedule of joint investigation ;

2. That on January 23, 2014 together with the representatives of ALDAW Mr. Charlito M. Nilasa and Mr. Daniel Sinta informed/coordinated to the Barangay Sandoval and Agumil Phils., Inc Field office, Barangay Sandoval regarding our purpose ;

3. That the team proceeded to the subject area together with the representatives of the above-mentioned Barangay for the above-mentioned purpose ;

4. That the team observed in the area that allegedly the Palm Oil Planters in the area are continuously clearing/cutting all naturally grown trees/vegitation ranging from 30-80 centimeters diameter of Apitong Balau, Apitong Baboi and Misc. Species within their acquired lots, without necessary permit from DENR (Please see attached geo-tag pictures) ;

5. That the team initially surveyed the newly developed/cut/cleared area allegedly of Agumil Phils., Inc within Alienable and Disposable Land with an area of 19.21 hectares and 2.69 hectares within Timberland. And allegedly the San Andres Farmers Cooperative newly developed /cleared 9.18 hectares within Alienable and Disposable Land (Please see attached digitized Maps).

6. That the team recommends the survey of all their area cut/cleared/developed and 100% stump inventory of all the trees cut in order to determine the damages and prejudice to the government ;

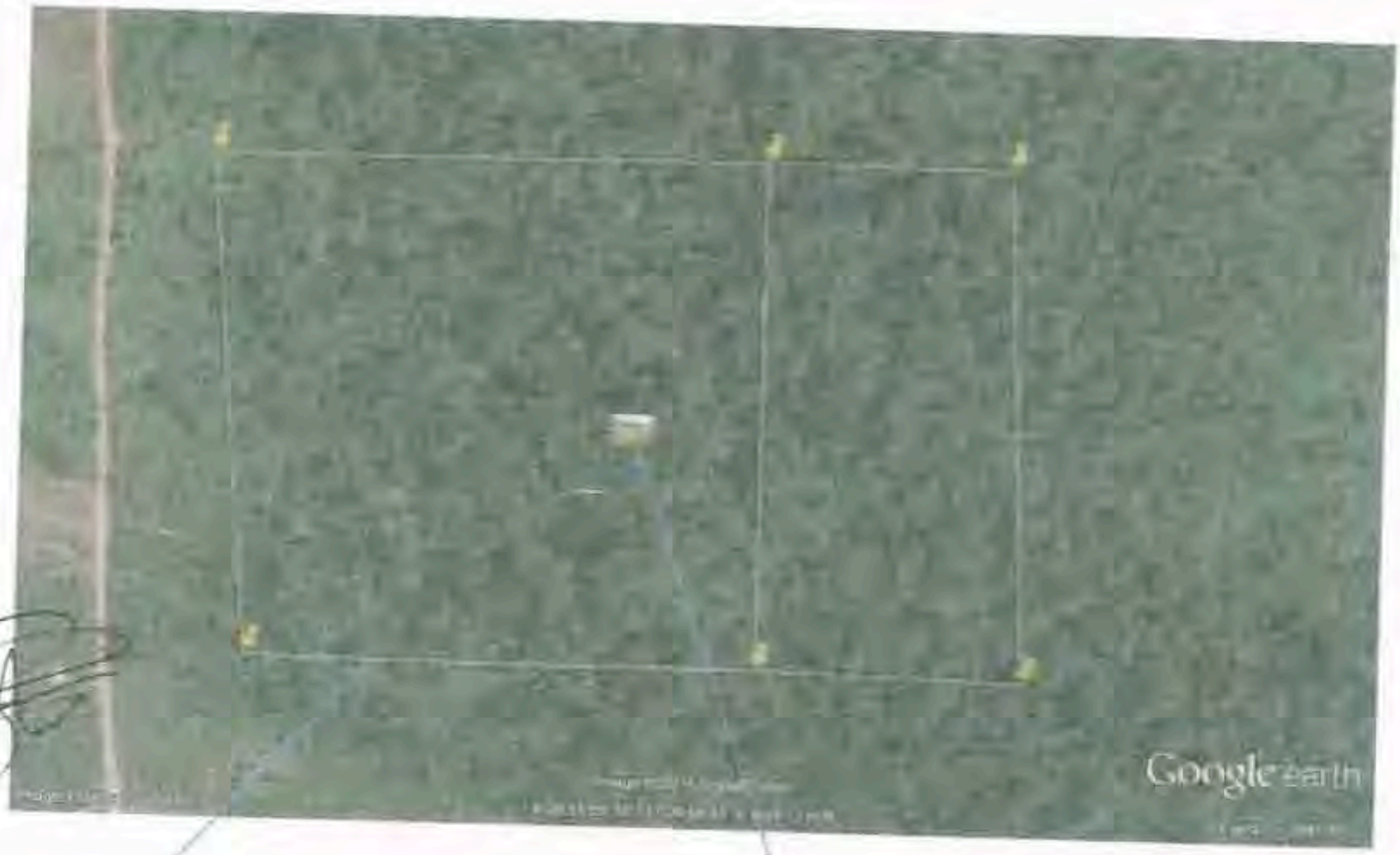
7. That the team recommends the filing of appropriate criminal charges against the above mentioned companies for gross violation of Section 68 and Section 69 of Presidential Decree (PD) 705 as further amended after the survey and inventory of all the area cut/cleared/developed ;

For his information and further appropriate instruction.

BERNAMI M. MANUNGGAY **HERMAN A. PARAISO**

FRANKLIN M. AQUINO

Satellite / Google Earth Image taken last March 07, 2010 now cleared / developed into Palm Oil Plantation allegedly by Agumil Philippines, Inc. located at Sitio Pasi-Pasi, Barangay Culandanum, Bataraza, Palawan



Plantation Area

Latitude: 8° 36' 50.92" Longitude: 117° 24' 57.59" (WGS 1984)
(Center of the Plantation)

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Latitude: 8° 36′ 50.92″ Longitude: 117° 24′ 57.59″ (WGS 1984)
(Center of the Plantation)

North

East

South

West

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Latitude: 8° 36' 50.92" Longitude: 117° 24' 57.59" (WGS 1984)
(Center of the Plantation)

Panorama 180 North to South

Panorama 180 South to North

Panorama 360

HERMAN A. PARAISO
Admin. Aide III

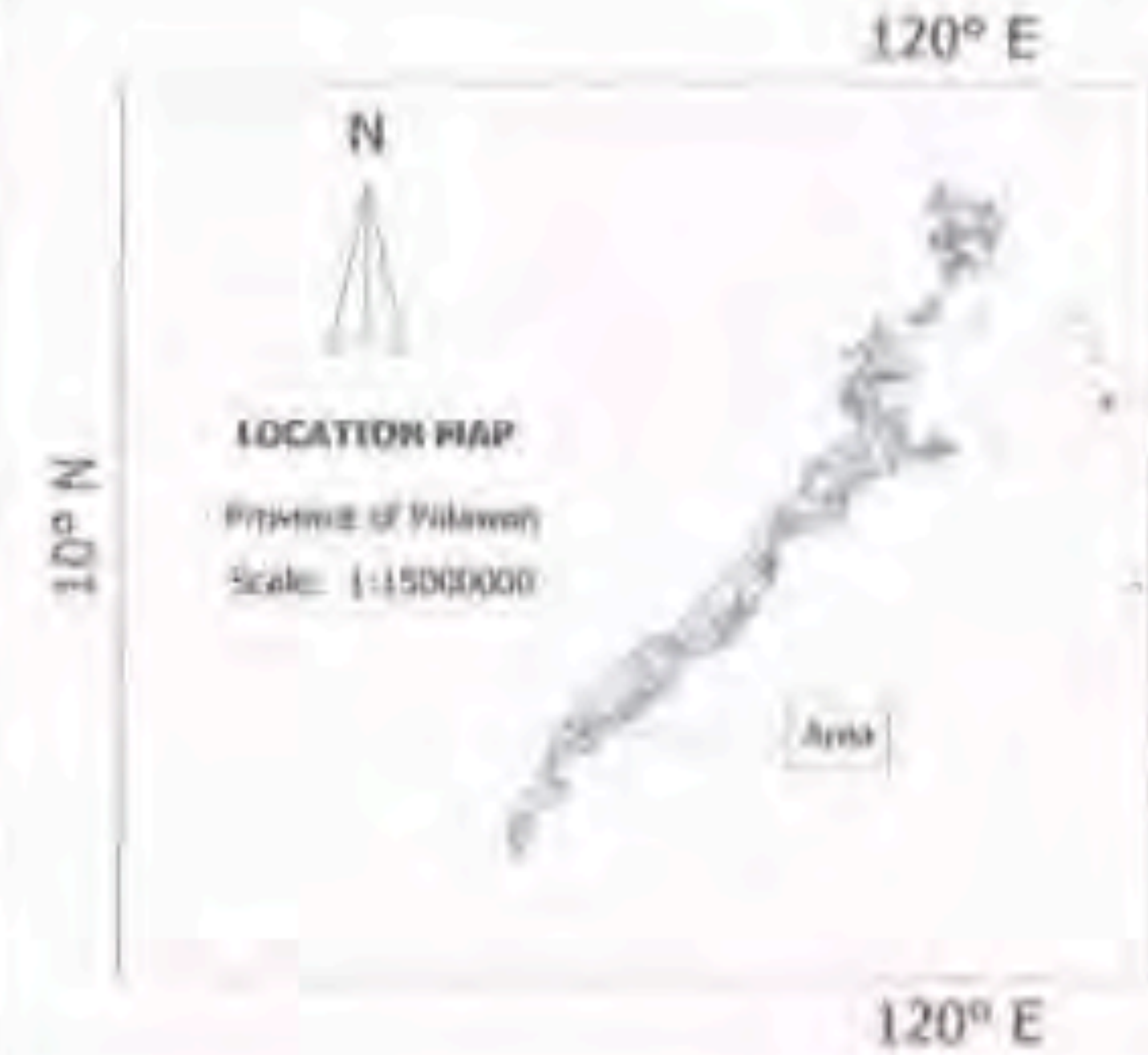
BERNAMI M. MANUNGGAY
Forest Ranger

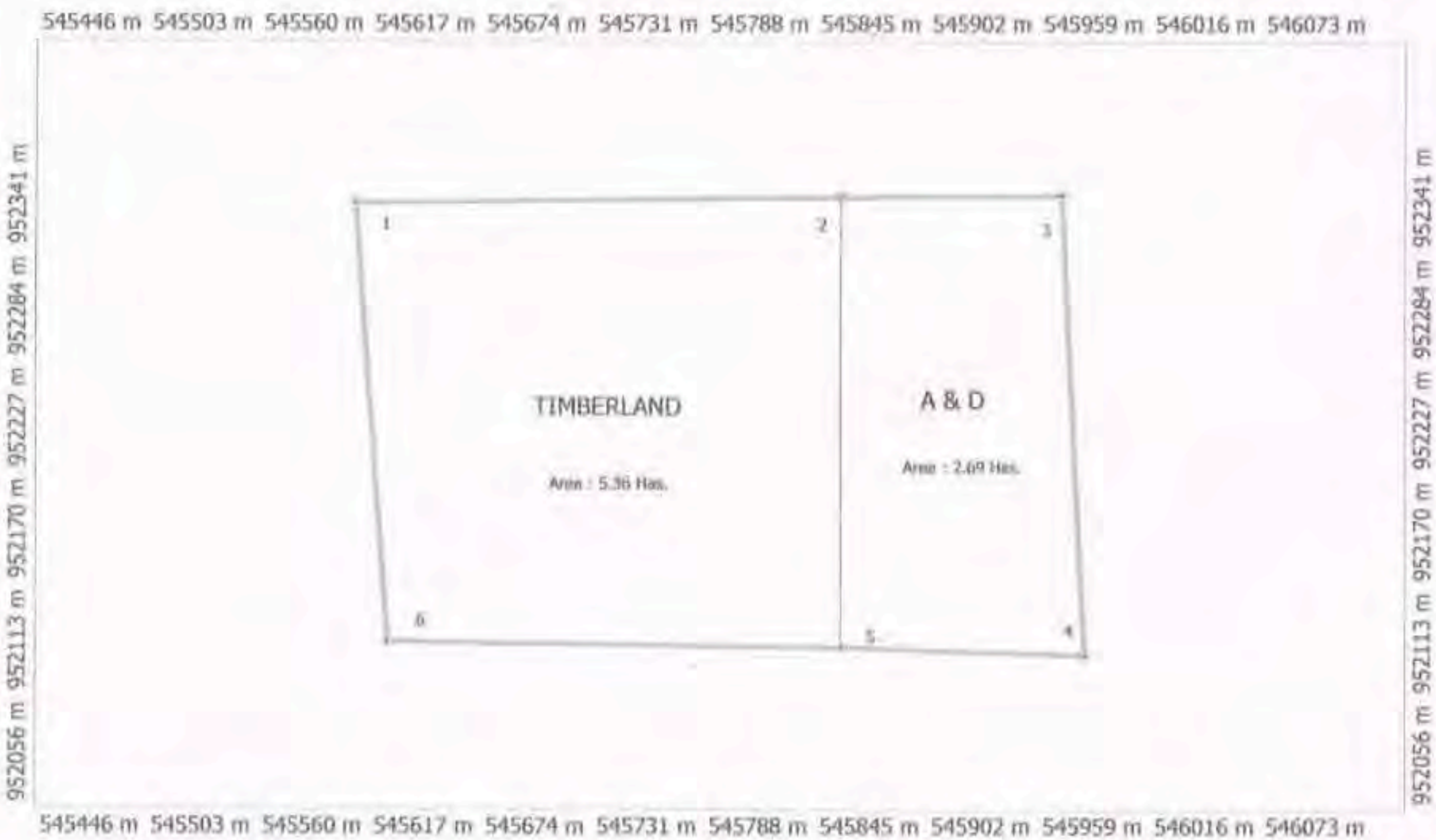
FRANKLIN M. AQUINO
Forester I

TECHNICAL DESCRIPTION

TIE POINT	LONGITUDE			LATITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
	117	24	51.38	8	36	54.81

CORNER	DISTANCE	BEARING				
		Direction n/s	DEGREES	MINUTES	SECONDS	Direction e/w
TIE LINE						
1	246.78	N	89	21	59.5	E
2	111.58	N	89	41	19.0	E
3	232.18	S	2	46	8.4	E
4	122.84	N	88	9	41.4	W
5	230.42	N	89	14	46.1	W
6	222.21	N	4	13	29.4	W





Digitized by:

HERMAN A. PARAISO
Admin. Aide III

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MAP

showing the area allegedly covered / cleared by

AGUMIL PHILIPPINES, INC.

located at Barangay Culandanum, Bataraza, Palawan

AREA: 8.05 Hectares

SCALE : 1:4000

0 >1 m

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : World Geodetic 1984 (WGS84)

LEGEND

Area
Corner

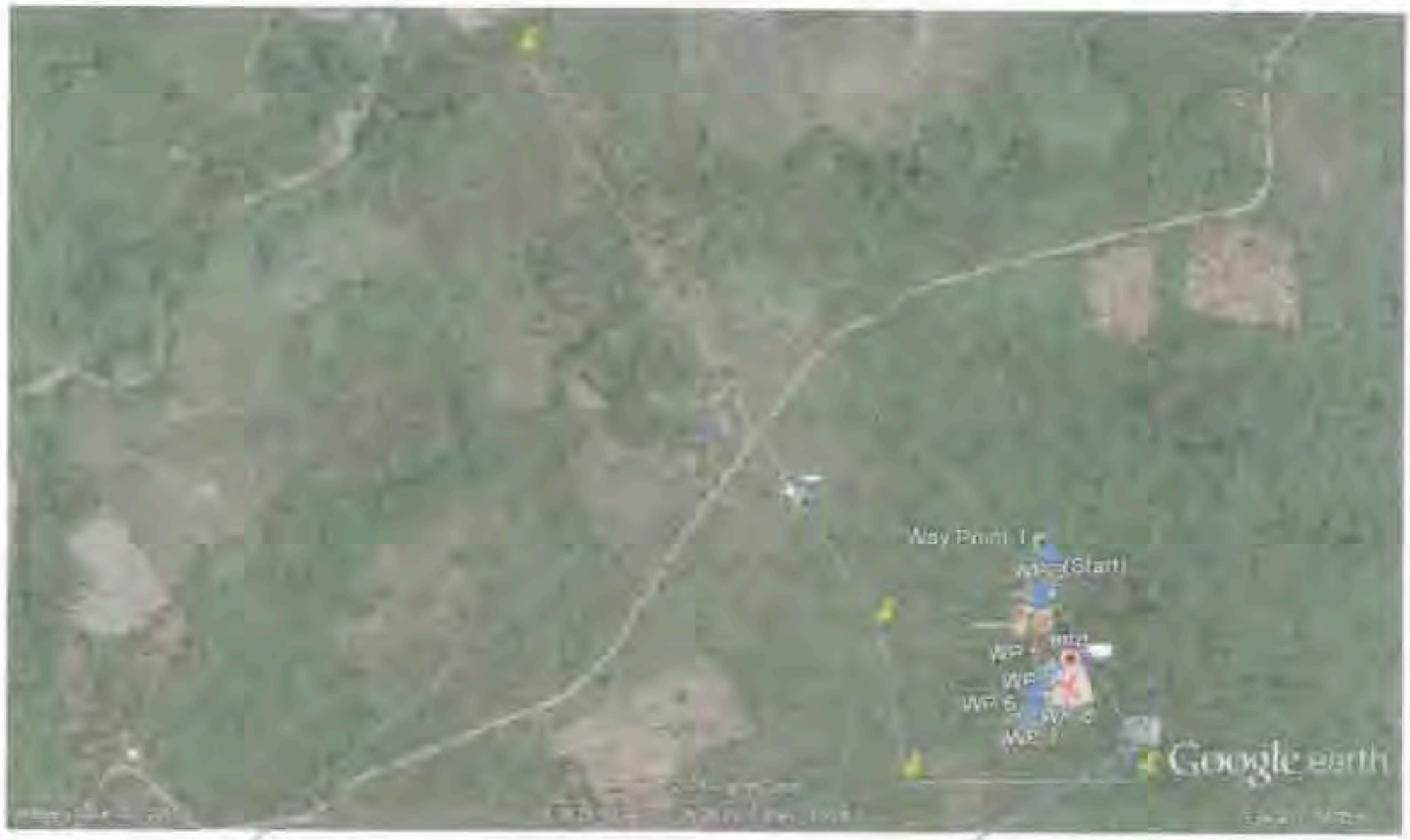
CERTIFICATION

This is to certify that this is the true and correct map of the area Palm Oil Plantation as described hereon.

This map was prepared based on GPS survey, compilation map and other references available in this Office.

Surveyed by :

Satellite / Google Earth Image taken last March 07, 2010 now cleared / developed into Palm Oil Plantation allegedly by Agumil Philippines, Inc. located at Barangay Culandanum, Bataraza, Palawan



Plantation Area

Latitude: 8° 38' 16.4" Longitude: 117° 26' 39.4" (WGS 1984)

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANLUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Way point 1

Way point 2

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Way point 3

North

East

South

West

Panorama 180 North to South

Panorama 180 South to North

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Way Point 4

Way Point 5

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Way Point 6

Way Point 7

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Way Point 8

HERMAN A. PARAISO
Admin. Aide III

BENJAMIN M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Way point 9

North

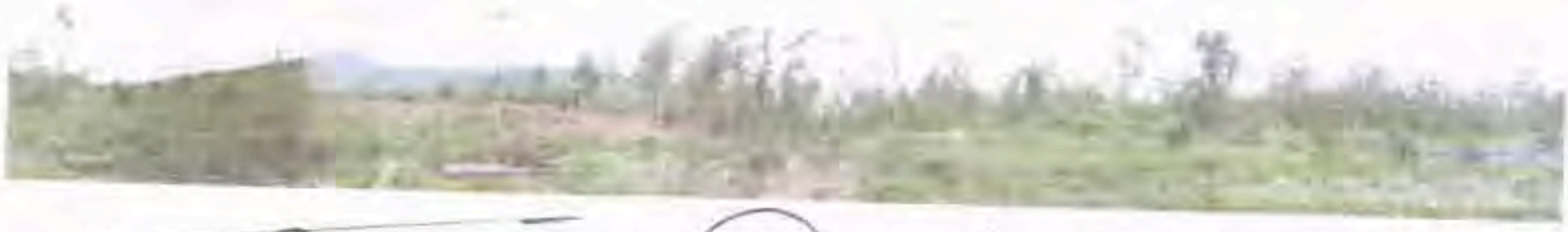
East

South

West

Panorama 180 North to South

Panorama 180 South to North



Panorama 360

HERMAN A. PARAISO
Admin. Aide III

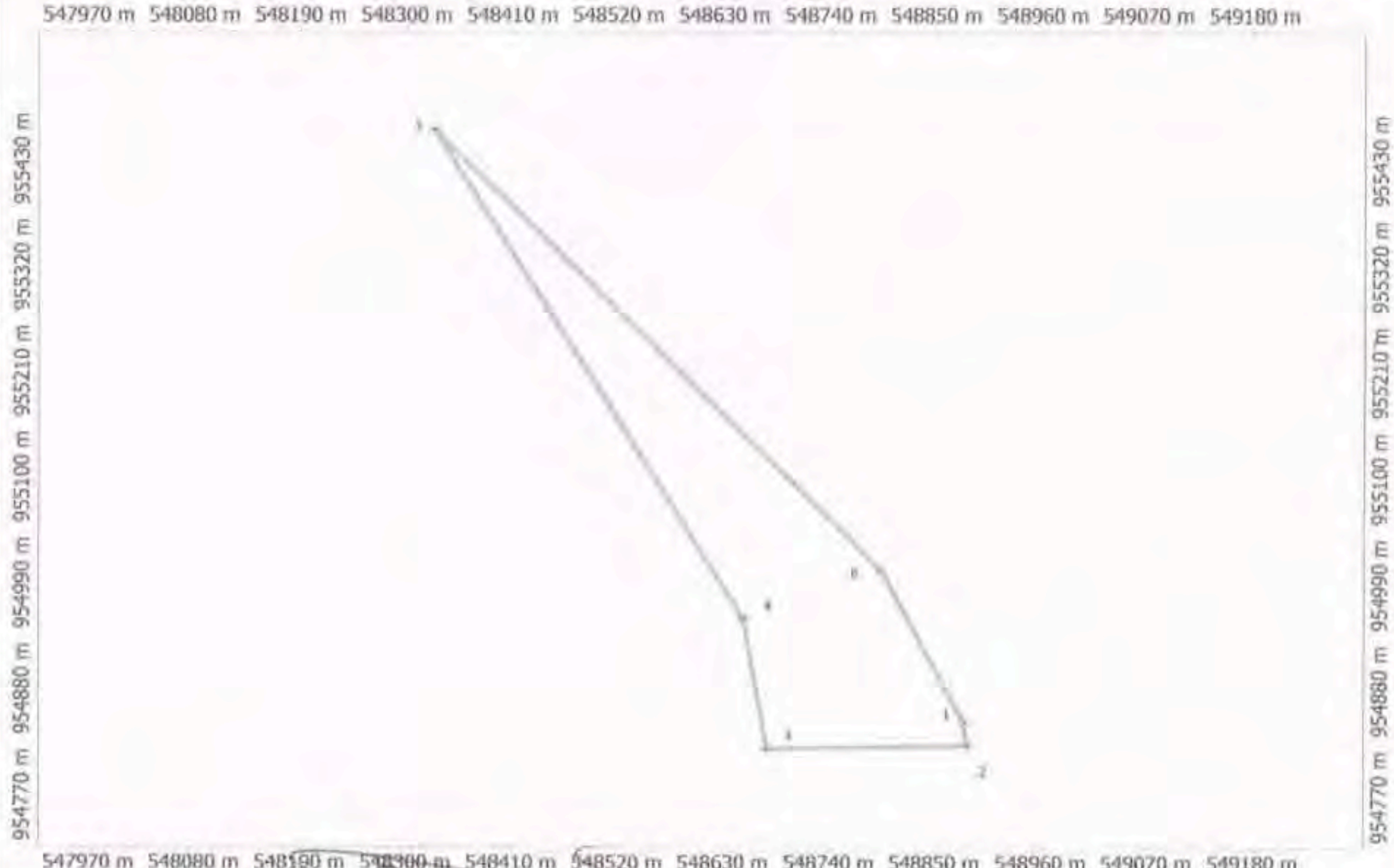
BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

TECHNICAL DESCRIPTION

TIE POINT	LONGITUDE			LATITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
	117	26.000	39.4	8	38	16.4

CORNER	DISTANCE	BEARING				
		Direction n/s	DEGREES	MINUTES	SECONDS	Direction e/w
TIE LINE						
1	24.44	S	7	7	30.1	E
2	206.17	S	89	9	26.9	W
3	135.57	N	10	18	17.4	W
4	592.89	N	32	28	18.3	W
5	843.33	S	45	35	30.6	E
6	178.29	S	28	52	29.3	E



Digitized by:

HERMAN A. PARAISO
Admin. Aide III

N
W E
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MAP

showing the area allegdly covered / cleared by

AGUMIL PHILIPPINES, INC.

located at Barangay Culandanum, Bataraza, Palawan

AREA: 7.29 Hectares

SCALE : 1:7500

0 >1 m

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : World Geodetic 1984 (WGS84)

LEGEND

Area
Corner

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Region IV-B (MIMAROPA)
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE

CERTIFICATION

This is to certify that this is the true and correct map of the area Palm Oil Plantation as described hereon.

This map was prepared based on GPS survey, compilation map and other references available in this Office.

Surveyed by :

Forest Ranger

Satellite / Google Earth Image taken last March 07, 2010 now cleared / developed into Palm Oil Plantation allegedly by San Andres Palm Oil Plantation located at Barangay Sandoval, Bataraza, Palawan

Plantation Area

Latitude: 8° 36' 16.27" Longitude: 117° 25' 19.18" (WGS 1984)
(Center of the Plantation)

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Latitude: 8° 36' 16.27" Longitude: 117° 25' 19.18" (WGS 1984)
(Center of the Plantation)

North

East

South

West

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Latitude: 8° 36' 16.27" Longitude: 117° 25' 19.18" (WGS 1984)
(Center of the Plantation)

Panorama 180 North to South

Panorama 180 South to North

Panorama 360

HERMAN A. PARAISO
Admin. Aide III

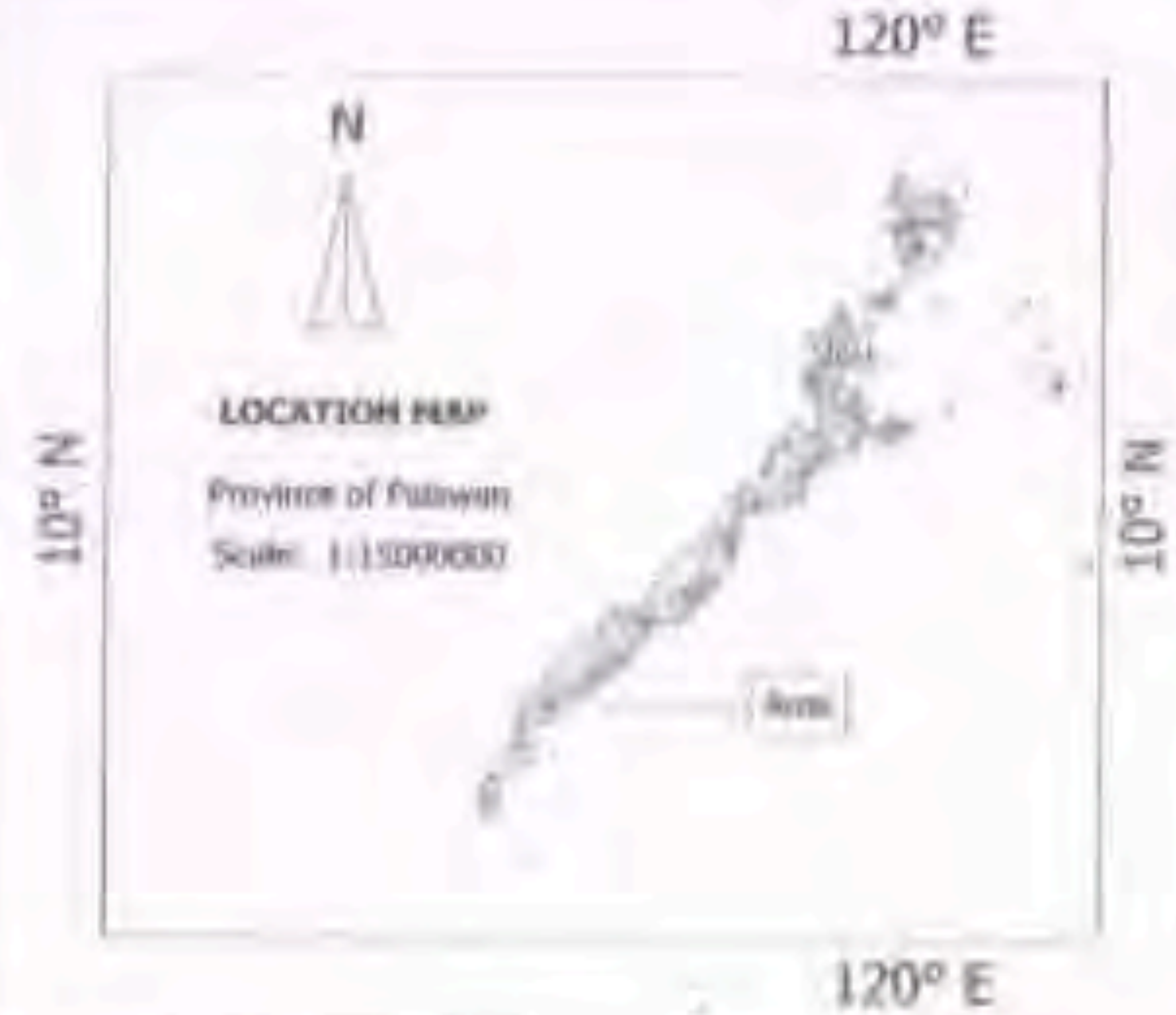
BERNAMI M. MANUNGGAY
Forest Ranger

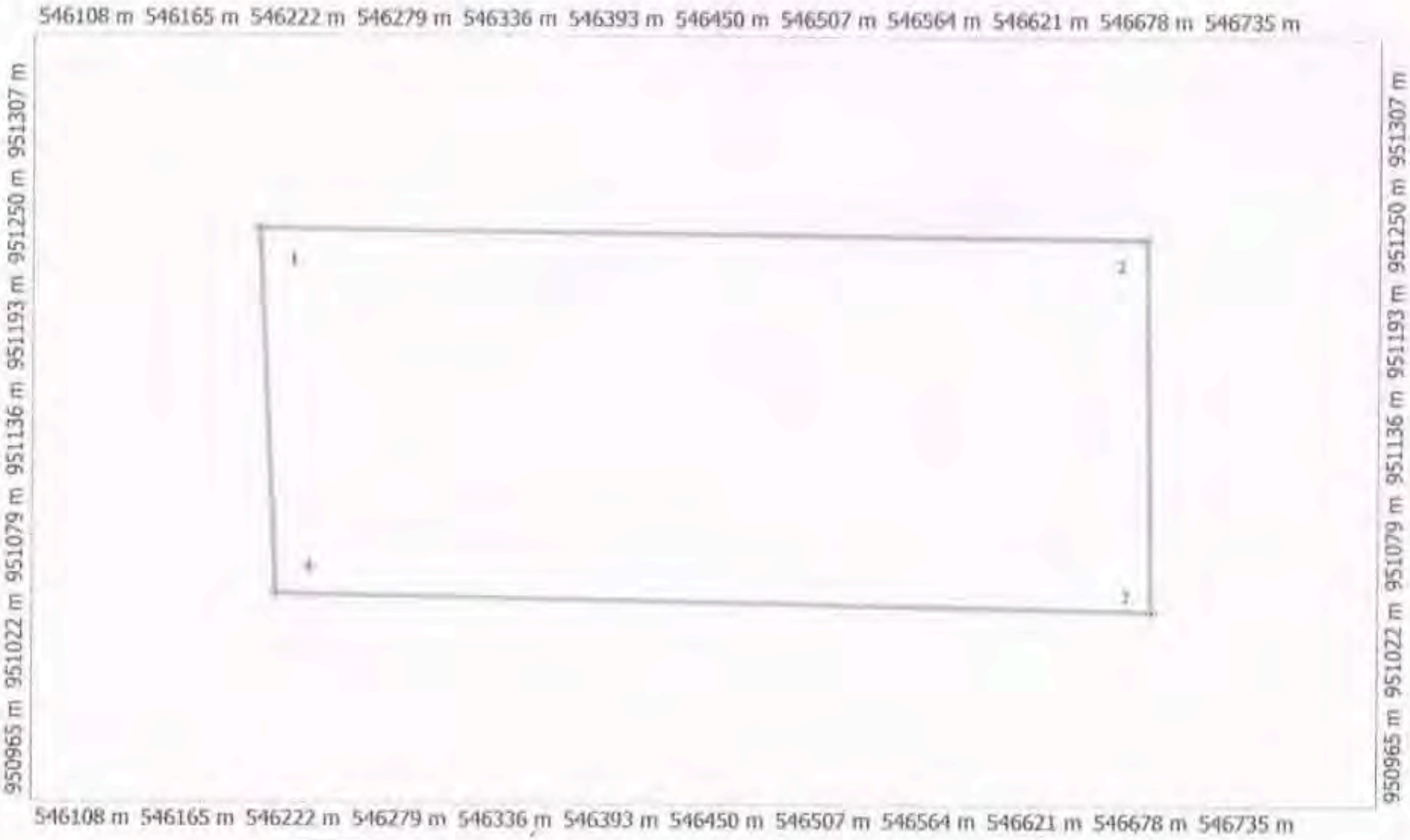
FRANKLIN M. AQUINO
Forester I

TECHNICAL DESCRIPTION

TIE POINT	LONGITUDE			LATITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
	117	25	11.64	8	38	19.2

CORNER	DISTANCE	BEARING				
		Direction n/s	DEGREES	MINUTES	SECONDS	Direction e/w
TIE LINE						
1	473.25	S	89	24	45.9	E
2	107.07	S	-	52	53.1	E
3	467.23	N	88	57	32.6	W
4	193.62	N	2	41	31.8	W





Digitized by:

HERMAN A. PARAISO
Admin. Aide III

N
W E
S

MAP

showing the area allegedly covered / cleared by

SAN ANDRES PALM OIL PLANTATION

located at Barangay Sandoval, Bataraza, Palawan

AREA: 9.18 Hectares

SCALE : 1:4000

0 >1 m

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : World Geodetic 1984 (WGS84)

LEGEND

Area
Corner

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Region IV-B (MIMAROPA)
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

This is to certify that this is the true and correct map of the area Palm Oil Plantation as described hereon.

This map was prepared based on GPS survey, compilation map and other references available in this Office.

Surveyed by :

[illegible] MANUNGGAY
Forest Ranger

[illegible] AQUINO
[illegible]

Satellite / Google Earth Image taken last March 07, 2010 now cleared / developed into Palm Oil Plantation allegedly by Agumil Philippines, Inc. located at Sitio Song-Song, Barangay Culandanum, Bataraza, Palawan

Plantation Area

Latitude: 8° 38' 12.72" Longitude: 117° 26' 58.91" (WGS 1984)
(Center of the Plantation)

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Latitude: 8° 38′ 12.72″ Longitude: 117° 26′ 58.91″ (WGS 1984)
(Center of the Plantation)

North

East

South

West

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

GEO TAG PICTURES OF THE AREA

Latitude: 8° 38' 12.72" Longitude: 117° 26' 58.91" (WGS 1984)
(Center of the Plantation)

Panorama 180 North to South

Panorama 180 South to North

Panorama 360

HERMAN A. PARAISO
Admin. Aide III

BERNAMI M. MANUNGGAY
Forest Ranger

FRANKLIN M. AQUINO
Forester I

TECHNICAL DESCRIPTION

TIE POINT	LONGITUDE			LATITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
	117	25.000	53.96	8	38	15.16

CORNER	DISTANCE	BEARING				
		Direction n/s	DEGREES	MINUTES	SECONDS	Direction e/w
TIE LINE						
1	385.31	S	89	38	21.7	E
2	175.83	S	-	5	55.6	W
3	357.11	N	89	54	9.8	W
4	179.82	N	8	55	20.7	W

549191 m 549248 m 549305 m 549362 m 549419 m 549476 m 549533 m 549590 m 549647 m 549704 m 549761 m 549818 m

954781 m 954838 m

954553 m 954610 m 954667 m 954724 m

549191 m 549248 m 549305 m 549362 m 549419 m 549476 m 549533 m 549590 m 549647 m 549704 m 549761 m 549818 m

Digitized by:

HERMAN A. PARAISO
Admin. Aide III

MAP

showing the area allegedly covered / cleared by

AGUMIL PHILIPPINES, INC.

located at Sitio Song-Song, Barangay Calandanum, Bataraza, Palawan

AREA: 6.56 Hectares

SCALE : 1:4000

0 >1 m

Projection: Universal Transverse Mercator - Zone 50 (N)
Datum : World Geodetic 1984 (WGS84)

LEGEND

Area
Corner

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Region IV-B (MIMAROPA)
CITY/MUNICIPALITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

This is to certify that this is the true and correct map of the area Form Of Plantation as described hereon.

This map was prepared based on GPS survey, compilation map and other references available in this Office.

Surveyed by :

BERNARD N. BERNARDINO
Forest Ranger

FRANCISCO M. AGUINO
Forester I