

PLUNDER OF PARADISE: THE HISTORY OF FOREST DENUDATION OF MASBATE ISLAND, THE PHILIPPINES, 1870-1946

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ABSTRACT

This study is an inquiry on the forest denudation of Masbate Island in the Philippines from the perspective of environmental history. Masbate was once likened to a paradise because of its pristine luxuriant forest that practically covered the whole island prior to colonization. This island had been the haven for various types of flora and fauna which are not endemic in other islands in Central Philippines.

In the course of history, however, Masbate's forest had been seriously denuded paving the way for the loss of its biodiversity. Extensive grassland (savanna) emerged after forest cover had been removed paving the way for the emergence of grazing industry which was monopolized by the elite population of the province.

The study argues that Masbate's forest denudation was perpetrated by the Spaniards and Americans who colonized Philippines. The loss of forest reserves in Masbate can be clearly attributed to the colonizers' insatiable appetite for wealth.

Keywords: Masbate Island, colonization, environmental history, forest denudation.

INTRODUCTION:

With the increasing number of human disasters brought by the natural calamities in the entire world, historians' inquiry of the past is now focused on the relationship between man and his environment. Until recently, deforestation has been the theme for study of forest history under the domain of environmental history. As the eleventh largest island in the Philippine archipelago, the study on Masbate's history specifically environmental history had not yet been given much attention by scholars. So far, there is only one scholar who had ventured into this study. Jan Bay-Petersen, an archaeologist, focused his investigation on the supposed loss of Masbate's forest wealth during prehistory. Using archaeological remains as bases, he concluded that the loss of Masbate's forest was largely due to the shifting cultivator's (*kaingiros*) forest overexploitation due to population growth. After this study was published in 1981, no other study related on forest history had been made in another period on Masbate's local history. This present study focuses on the history of Masbate's forest denudation from 1870 to 1946. The study argues that forest denudation in Masbate was the result of the Spanish and American colonizers' exploitation of forest wealth by legalizing the timber industry. This forest exploitation of the province became the major cause of a number of environmental-related problems that the province is facing today.

GEOGRAPHICAL SETTING:

The province of Masbate is composed of three larger islands, namely, the main island of Masbate, Burias and Ticao. Included in these islands are sixty five (65) smaller islands which are considered dependent islands within its territorial jurisdiction. Burias and Ticao Islands lie west and north to the main island and are separated by the Masbate Pass. The province is located 25 miles southwest of the island of Luzon, about the same distance northeast of Panay and less than 20 miles northwest of Leyte Island (US Bureau of Insular Affairs, 1902). The main island of Masbate is mountainous and has a rugged topography. Compared to the rest of the Philippine islands, the elevation of Masbate Island had been considered "very narrow" (San Agustin, 1998). Its highland or cordillera systems had only a maximum elevation between 1,900 and 2,300 feet below sea level (A Pronouncing Gazetteer, 1998).

There are two discontinuous mountain ranges in the main island of Masbate. These mountain ranges provide the physiographic frame for the province. The first one is the northeast-southwest section, the higher among the two and forms the long southeastern peninsular arm of the island facing Masbate Pass and down to the southernmost tip of the island facing Cebu and Leyte. This section of the island are dotted with towns located along the coasts, namely, the capital town of Masbate (Masbate City), Mobo, Uson, Dimasalang, Palanas, Cataingan, Pio V. Corpuz, Esperanza, Placer and Cawayan. The second highland system which is oriented towards north northeast-southwest lies to the southwest from Pulanduta (Balud) which is located only about 30 kilometers from Panay from Jintotolo Channel (Cavada, 1876). It covers the town of Milagros, Balud and Mandaon and on to San Agustin near Port Barera in the northern part of the island which is now part of the town of Aroroy. On the northeastern tip of the island are limestone cliffs which rise almost perpendicular from the waterline. It is in this part of the main island of Masbate where remaining primary forest was found immediately prior to World War II. In addition, mangrove swamps also dotted here especially in the mouth of several streams (Solheim, 1955).

In the southeastern part of the island a number of peaks also line the shores of Asid Gulf such as the Vegia and the Napulusan mountains which are both overlooking the Visayan Sea. These highland systems have relatively broad bands of coastal lowlands and had the maximum elevation of 1,000 feet. These two upland systems come together south of the rich gold town of Aroroy in a highly complex Conical Peak, the highest of which is the Mount Bagasimbahan (like a church in *Masbateño* language), which lies 11 kilometers south of the town of Baleno and 18 kilometers southeast of Aroroy (Cavada, 1876). The interior parts of the island are rolling hills mostly covered with cogon grass and ideal for cattle grazing. This industry is mostly controlled by the influential rich families not only in Masbate but also from other places in the Philippines.

According to Werntedt and Spencer (1967) Masbate Island has the highest percentage of grassland (savanna) in the Philippines a decade after the Second World War. Broad expanse of cogon grass is a

common site in interior parts of the province which is suitable and ideal for cattle grazing in the three islands of the province such as Masbate, Ticao and Burias. In fact, this industry in Masbate had been in existence from late nineteenth century during Spanish colonization. The land covered with cogon grass is a favourite breeding ground for locust and locust's infestation is a common phenomenon in Masbate province from the mid unto the end of the nineteenth century. The presence of extensive grassland in Masbate that has puzzled scholars of the past, including archaeologists, anthropologists and historians, will be the subject of this historical inquiry.

MASBATE'S PREHISTORIC PEOPLE AND THEIR ADAPTATION TO ENVIRONMENT :

Both archaeologists and anthropologists have made Masbate as the field laboratory for their research studies and their perceptions were similar based on the fossils and artefacts they have dug up in this province. Wilhelm Solheim II (1955), for instance, hypothesized Masbate Island as one of the Philippine islands inhabited by a group of people long time ago before the arrival of Westerners particularly the Spaniards. In his study about the *Kalanay Pottery Complex*, Solheim claimed that Masbate's early inhabitants established a certain degree of 'civilization' that would have spread to other islands in Central Philippines. This 'civilization' was seen through the proliferation of pottery industry and iron tools to the neighboring islands which are included in this *Kalanay Pottery Complex* (Solheim 1955).

There is no existing record identifying the early inhabitants of Masbate during pre-hispanic times. Archaeologists who conducted a study at the three archaeological sites in Masbate Island namely the Batungan Mountain, Kalanay and Bagopantao Caves that are located somewhere between the towns of Aroroy and Mandaon in the western coast of Masbate identified the first settlers as 'Ancient Cave Dwellers' or 'Jar Burial People' (Smith, 1921; Solheim, 1955). This is due to the reason that they lived in caves and their cultural practice of burying their ancestors in jars. 'Jar Burial People' learned how to make pots as well as iron tools as evidenced from the artefacts recovered from their early settlements in Masbate. The area that exists between Mandaon and Aroroy is not surprising to have been the dwelling place of these people because this is the place in Masbate where rice was produced in large quantities. In addition, the well-known gold deposit is also located in this area. In fact, the first evidence of iron tools in Bicol and in Central Philippine regions was dug up in Masbate Island where the early 'civilization' was perceived to have been developed. It is in Batungan Cave in Mandaon, Masbate where the *bolo* (iron slag) was recovered which was believed to have been used by the early inhabitants. This *bolo* is now displayed open for the public in Ayala Museum in Makati City to exhibit the Philippine nation's posterity (Personal interview with Edwin Returan, 2009).

One factor for the development of early iron tool making in Masbate Island is due to the presence of mining activities in the rich gold town of Aroroy that is fairly near the town of Mandaon. Early Spanish accounts contained references on the rich gold deposits in this area in Masbate that had been mined by the prehistoric Filipinos. The abundance of gold deposit in this town stems from the word 'aroroy' or 'al oroy' that originates from *al oro* meaning 'to the gold' (Fernandez and Zafra, 1924). Mining industry in Aroroy, Masbate was known to people in neighboring islands due to which people from the Camarines in Bicol reached this town for occupation. Iron tools are necessary and highly important in mining activities. One of the recorded types of iron tools used by the people in their mining and farming works was the *minasbad* which is a unique type of *bolo* especially made in Masbate. The name *minasbad* is derived from Masbad, the old name of Masbate (Blair and Robertson, 1903-1909). In fact, this *bolo* was used by Masbate people against the Spaniards when the latter reached this mining district in Aroroy and forced the people to pay tribute (tax). Armed confrontation between the people of Masbate and the first contingent of Spanish *conquistadores* erupted in the river near the mine. In this battle the natives of the place were defeated. After the battle, this river was named *Rio Guinobatan*. *Rio* means 'river' and *Guinobatan* referred to 'the place where the battle took place'. This place is now called Syndicate (HDP Barrio Syndicate, Aroroy, Masbate, 1952). From then on, the mining activities in Aroroy became unproductive. The people stopped working in the mines "on account of the Spaniards" (Blair and Robertson, 1903-1909). *Minasbad* is still commonly used by the Masbateños of today not only in their mining, farming and fishing activities but also for defense against their enemies

(Pelorina, 2012).

Jan Bay-Petersen, an archaeologist from the University of Leicester in England, made an archaeological study in Masbate Island in 1980s in order to understand the culture of its early inhabitants in relation to their early economic activities in this particular environment. Bay-Petersen chose Masbate as the target location of his study due to the available archaeological remains dug up from the ground. The site of his study was the place named *Bagumbayan* (new town site) near the town of Palanas which is located in the Southeastern part of the island. Palanas (from the word “*panas*” meaning bedrock or plain stone) is one of the oldest towns of Masbate. Using fossils and artefacts as bases, Bay-Petersen theorized that the early inhabitants of Masbate were shifting cultivators. In local parlance it refers to the *kaingiros* whose traditional farming method is through shifting cultivation or *kaingin* (Bay-Petersen, 1981). Also known as slash and burn agriculture, *kaingin* farming is a type of farming practiced by clearing the forest, burning the trees and weeds, cultivating or simply softening the land by making a hole and then growing crops or sowing seed of any crop like sweet potato (*camote*), taro (*gabi*), yam (*ubi*) or cassava (*kamoteng kahoy* or *balinghoy*).

Shifting cultivation is a farming system practiced by people who keep on moving from one place to another (nomads). By its very nature, this type of farming is not harmful to nature especially if the place is sparsely populated. It can only be harmful or destructive to nature if the population is dense and the area covered for cultivation is extensive. Bay-Petersen theorized that the population had a good growth in Masbate based on the number of artefacts he examined and because of this, people had to devise ways to meet the food supply for the growing population. Population growth, added Petersen, resulted to the extensive economy which led to the overexploitation of the forest in order to have more land devoted to farming for daily subsistence. The existence of this type of traditional farming method in Masbate appeared in folk literature such as those in Barrio Arado in the town of Uson (Eugenio, 2002). As a traditional type of farming, shifting cultivation is not unique in Masbate Island. It is likewise practiced by people in other parts of the Philippines particularly the Visayan regions where root crops are the staple food (Scott, 1994).

Bay-Petersen hinted in his archaeological diggings that there was an early destruction of forest cover in Masbate due to overpopulation and environmental pressure of shifting cultivators or *kaingiros*. As a result of overexploitation of forest cover, Bay-Petersen theorized that Masbate’s forest had been denuded. Consequently, prehistoric people left the hills to settle in coasts and became dependent on marine resources as part of their survival strategies (Bay-Petersen, 1981). Following Bay-Petersen’s assumptions, it therefore appears that the proliferation of Masbate’s broad expanse of grassland is not the natural vegetation of the island but a consequence of a man-made intervention through cutting of trees and repeated burning of the forest by the shifting cultivators or *kaingiros*.

Wilhelm Solheim II and Jan Bay-Petersen’s studies suggest that Masbate had developed a certain degree of cultural development or ‘civilization’ prior to Spanish colonization of the Philippines which is supported by the Bicol historians. Of all the Bicol provinces, Bicol historians point to Masbate Island where the earliest existence of man was discovered through the archaeological evidence so far found out (Gerona, 1988). It was likewise pointed out by the two writers that the early settlers were both farmers and miners as reflected in their way of life and the kind of tools they have produced that had been buried in the ground. However, the two writers were not in agreement as to the issue on early denudation of forest cover in Masbate. While Solheim simply stated the presence of early settlers in Masbate in his study on the *Kalanay Pottery Complex* and did not relate their existence with the exploitation of the environment whereas, Bay-Petersen’s position was more pronounced as to their adaptation with the environment. Bay-Petersen suggested that it was the shifting cultivators or the *kaingiros* who may have exploited Masbate’s forest through repeated burning and other environmental pressure during prehistory. If Bay-Petersen’s findings are to be accepted, then the wrongdoers behind the forest denudation of Masbate are none other than the prehistoric people of Masbate who were miners and shifting cultivators.

Bay-Petersen’s findings seemed to have been accepted by other writers as basis for their claims of the loss of forest wealth resources in Masbate Island. One of these writers was Anita Ellen Kendrick, an American sociologist, who once served as Peace Corps in the town of Cataingan and submitted a

thesis for her Master's degree at Cornell University. Kendrick's thesis deals with the survival strategies practiced by the Cebuano migrants in Cataingan, Masbate from the early 1920s until the middle of 1930s. Kendrick's thesis reflected Bay-Petersen's findings on the loss of forest wealth or forest denudation of Masbate despite the difference in period of time that the two studies were conducted. Echoing Bay-Petersen's findings, Kendrick claimed that the Cebuano migrants chose to settle in the coastal areas of Cataingan because the sources of wealth in the interiors had been depleted (Kendrick, 1988).

While the current researcher agrees with the theory that Masbate's forest denudation was a man-made one which gave rise to the extensive grassland but the argument that it was the *kaingiros* who were to be blamed for it is something that is farfetched to him. It cannot be denied that the *kaingiros*, through the very nature of their agricultural practices, could have, to some extent, stunted the growth of the forest. Their agricultural practices, however, could unlikely denude the forest. In contrast to the sedentary agriculture, swidden agriculture (*kaingin*) is integrated harmoniously into the natural environment and is not harmful to it. While the forest is cleared through the 'slush and burn' technique of swidden agriculture, it is said that the local environment recovers itself naturally during the fallow period that lasts from 10 to 20 years (Maohong, 2012). Given for the sake of argument, that the prehistoric people exploited and denuded Masbate's forest, those formerly cleared part resulting from *kaingin* activities could have gradually restored into its original state and therefore would not have lead to depletion or denudation. This 'degradation narrative' advanced by scholars of the past like Bay-Petersen was challenged by Harold Conklin in 1957. He conducted a study on the Hanunuo ethnic group, who are shifting cultivators in the Philippines which he debunked this perspective and deconstructed it completely. He argued that the agricultural practices of the shifting cultivators did not exploit the forest willfully. Instead, Hanunuo's traditional farming system was an integrally sustainable farming system which is based on their indigenous knowledge in spite of their agricultural production which is exploiting the natural resources and not protecting the environment (Conklin, 1957). Conklin's findings were confirmed by the Department of Environment and Natural Resources of the Philippines (DENR) in 1982 that commercial logging was the factor for deforestation and not the shifting cultivators. Thus, the 'degradation narrative' that *kaingin* farming leads to overexploitation or forest denudation was only a historical myth (Maohong, 2012).

Bay-Petersen's claim could be doubtful for two reasons. First, his analyses on the existence of the artefacts recovered from the settlements of the early inhabitants could have been contentious, because archaeologists in general, believe that the instrument for dating technique such as the carbon-14 dating in determining the number of years of any given remains is not accurate (Jocano, 2000). Thus, what he referred to as Masbate's prehistoric period, based on the determination of existence of the artefacts he examined could have been from a different period in Philippine history or for Masbate's local history for that matter. Second, as a citizen of a country (Great Britain) who had been a colonizer, Bay-Petersen, consciously or unconsciously, may have advocated the Western concept of 'received wisdom' based on Foucault's power discourse theory. This 'received wisdom' is based on the international society's perspective of sustainable forestry. This perspective argues that the colonizers regarded or recognized indigenous knowledge as backward when compared to modern science. Modern science is favoured over indigenous knowledge because of the correctness of its findings (Maohong, 2012). In light of Bay-Petersen's questionable findings on the loss of Masbate's forest, the author turns to historical records to somehow find an answer to this intriguing question. This adventure of looking into historical accounts as bases for the study on Masbate's forest denudation may, directly or indirectly, point to another group of people who could be blamed for what happened to this once a 'paradise island' in Central Philippines.

MASBATE'S FOREST DENUDATION DURING THE SPANISH COLONIZATION :

The deforestation in the Philippines in general and Masbate Island in particular is a process that begun with the arrival of the Spanish colonizers in 1521. Unlike the indigenous people's concept that the forest is an integral part of their belief system (animism) which is closely attached to nature, the Spanish concept is something that can be used for economic gains which lead to its commercialization. With the

European import of modern forestry in the Spanish Philippines, the forest became the target for accumulation of wealth. As the demand for lumber was getting higher and higher, deforestation became more widespread (Ibid, p. 18). When the Spaniards colonized the Philippines in 1565, the 7,100 islands comprising the Republic of the Philippines today had 92 percent of forest cover (Bankoff, 2007).

Masbate, in particular, was in its pristine state which could have been likened to a 'paradise'. Explorations and descriptions of the island by early Spanish navigators indicated that, aside from the existence of gold and copper mines, "all three islands (Masbate, Ticao and Burias) possess excellent timber and many civet-cats" (Blair and Robertson, vol. 41, 1903-1909). This physical condition of the island remained until the middle of the nineteenth century. In his book *'The Progress of the Philippines: Economic, Administrative and Political Studies,'* Gregorio Sanciango y Goson had written the physical description and economic conditions of the Philippines. In his study of Masbate Island in particular, Sanciango y Goson had this to say:

Owing to the attitudes of the natives, I consider the uncultivated and royal lands in this district (Masbate) of no value. In general, they are hilly and covered with thick forests and clearing them will be very costly. At present very few are engaged in farming and seriously, no one. As soon as they find out that the lands would cost them money, whatever gradual increase in farming there might be would disappear (Sanciango y Goson, 1975).

In historical records Masbate remained undeveloped due to the small population, the number of typhoons that periodically strike the island and the locust plague that destroyed its important crops. In addition, the long duration of Moro (Muslim) raids that periodically altered the settlement patterns may have discouraged people to settle in this island. The number of Masbate's population based on Spanish colonial government's census seemed to have contradicted Bay-Petersen's archaeological studies that Masbate had large population which led to overexploitation of its forest during prehistory. If Bay-Petersen's findings were true, then the question is what happened to the huge population when the Spaniards colonized the Philippines? There is obvious difference between archaeologist claim and written records as to the number of Masbate's population. This issue on population rendered Bay-Petersen's study quite doubtful. The potential timber supply from Masbate led the Spanish colonial government to develop ship building industry and the government established a shipyard in this island. This plan, however, was not sustained because of the prevalence of Moro raids in the area that threatened the lives of the *polistas* (workers). Only one ship, the Royal flagship *Salvador*, was built in Masbate. The site of this shipyard was located in Sitio Frabrica at the bank of the Sagaosawan River in Barangay *Luyong Katunggan* (behind the swamp) in the town of Mobo (HDP Uson, Masbate, 1952). Since the plan to establish a ship building industry had to be stopped due to unabated Moro attacks, another plan was designed by the Spanish colonial government to exploit Masbate's forest wealth for another purpose. This plan was conceived during the advent of cash crop economy in the middle of the nineteenth century when the prospects for economic gains through export was very high. During the first half of the nineteenth century, Masbate's agriculture is not that much promising. The small population could not cultivate the land to make it productive. This backward economic condition of the island was compounded with the repeated Moros attacks in the coastal areas which altered the settlement patterns and paved the way for the existing dichotomy of *Daan-na-lungsod* (old town site) or *Bagumbayan* (new town site) (Pelorina, 2012). Given this dangerous security conditions in the island, people prefer or seemed to have gathered foods from the forests rather than produce. In fact, in the 1840s, the small population of Masbate had practically no industry to speak of and the people were content on "gathering of edible roots that they could get from the nearby forest" (Mallari, 1990). At the advent of cash crop economy in the middle of the nineteenth century, the Spanish government decided to tap Masbate's forest products such as *camangyan* (incense or storax), excellent lumber, indigo, rattans, coconut trees and *buri* palms. Of all these forest products, timber/lumber seemed to have been the most valuable one. Forest trees like mahogany, *naga* (narra), *tugas* (molave), *toog*, *lawaan*, *yakal*, *mamitin*, *tugawi*, *guijo* and *apitong* are but a few sources of excellent lumber in Masbate (HDP Barrio

Batuhan, Masbate, Masbate,1952). The utilization of forest products especially timber industry was effectively carried out to purportedly bolster Masbate's economy and the Spanish colonial government's financial capabilities in general.

In 1863, the Spanish colonial government in the Philippines created the *Inspeccion de Montes*. This colonial government agency was tasked to protect the forests in the Philippines and regulate timber cutting. Consistent with its mandate, the *Inspeccion de Montes* was able to preserve the forested areas in various islands of the Philippines including that of Masbate's (Orillos, 1999; Bolinao, 2005). The department's power remained unchallenged for quite a long time because the only trading that existed, when the Philippines was still ruled by Spain through the Viceroyalty of Mexico, was the galleon trade and that there was no unabated timber cutting in the Philippines at that time. The Philippines was only a transshipment point for products which were mostly brought from China to Acapulco, Mexico by the *Indio* (Filipino) sailors. The *Inspeccion de Montes's* power on forest protection, however, was challenged by another colonial government's department called *Junta de agricultura, industria y comercio* when the galleon trade ended in 1821 which paved the way for the opening of the Philippines to global trade (cash crop economy). The *Junta* was tasked to improve agricultural production through export. Consistent with its mandate, the *Junta* advocated for the timber cutting not only to raise agricultural production but at the same time to derive more revenues from the lumber that could be exported to other Asian and Western countries (De Voise, 1995).The opposing positions of the two rival government departments were put to a test when a debate was made on whether or not to deregulate the timber cutting in the Philippines during the advent of the cash crop economy. As the issue on the preservation through regulation or maximum exploitation through deregulation of forest resources was being debated, the *Junta* got an upper hand over *Inspeccion de Montes*. This was when the latter got the support from the provincial governors of the different provinces of the Philippines. The *Junta* and the provincial governors' position were strengthened when they raised an issue which concerns with the people's health. Malaria epidemic, a disease caused by mosquito bite, was common in the Philippines in the middle of the nineteenth century, particularly in the forested island of Masbate. They argued that if the large part of the forests be cleared, the malaria epidemic which threatened the peoples' lives particularly those living in the mountains could be controlled or minimized if not totally at least eradicated (Ibid).

As the economic condition of the Philippines was increasingly geared towards export to earn more money for the government coffers, the *Junta* won the debate and since then timber cutting in the Philippines especially in Masbate had been deregulated starting from 1870s and onwards. By 1884, the Spanish colonial government established an Agronomical Commission to conduct agricultural research and development in relation to the *Junta's* project. The Commission had five stations in Bicol with its headquarters located at Daraga, Albay which was headed by Jose Guevedo as the director. In line with the *Junta's* promotion to improve agricultural production with its campaign slogan that 'reserve forest be kept in the minimum' to control the malaria epidemic, Guevedo 'offered a bold plan for Masbate' (Ibid.). Masbate was the most undeveloped area under the five research stations of the Agronomical Commission in Bicol. As its director, Guevedo noted a very low income of Masbate's wood products per year that hardly cover the salaries of its workers. To improve income and production, Masbate's timber cutting was pursued to a considerable magnitude. This led to 'almost total cutting of trees in the island' (Ibid.).

As the Philippines was no longer isolated from the rest of the world in terms of business enterprise, the Spanish government exported lumber to Spain and California in United States 'by the ton'. Moreover, the Spanish colonial government in the Philippines likewise exported timber to its Far Eastern market particularly Japan and China due to the increasing Western powers in these countries. Because of the high volume of arrival of Philippine wood (a great number of those were from Masbate's forest!) into their countries, the Chinese and the Japanese built their railroads and ships out of Philippine wood (Ibid.). While the Spanish government and their elite supporters enjoyed the financial benefits out of Masbate's timber, but the common people were too poor and did not share the pie. Their occupation was simply gathering of firewood in the forest and sold it to Manila for daily subsistence and it could hardly contribute to Masbate's forest denudation. Or, if it contributed at all, its impact may not have

been that serious compared to the systematic timber cutting perpetrated by the Spanish colonial government.

The phenomenal denudation of the Masbate's forest led to the change in Masbate Island's landscape from the land covered with forests to the land covered with broad expanse of grassland. Cogon grass (*imperata cylindrica*) propagated after the primary forest had been cleared from the area. The rise of wide *cogonales* in Masbate subsequently led to another industry, the grazing industry, created by the Spanish colonial government for another source of wealth. Spaniards and prominent elite in Masbate such as the Valdez, Muñoz, Sanchez, Bayot, Zurbito, Serrano, Martinez and Medina, to name a few, were rich and influential families who established wide cattle grazing in Masbate (Pelorina, 2012). The existence of wide grassland that brought in the cattle grazing was personally observed by then American student, Dean C. Worcester, who was with the Steere Scientific Expedition that visited the Philippines about a decade prior to the outbreak of the Philippine revolution. This Scientific Expedition reached the island of Masbate in 1887 and 1890, respectively. Worcester noted that raising live-stock was the chief industry of Masbate especially by the rich families and its topography was made up of "grassy plains with excellent grazing ground" (Worcester, 1899). Worcester also noted during his second visit in 1890 when he reached *Malbug* (former town, but now relegated to a Barrio of the town of Milagros) for hunting purposes, that the people were poor and "there was virtually non-existence of economic activities and the poverty incidence in the island was highly evident" (Ibid.).

Worcester's observation reflected the general economic condition of Masbate Island a few years before the outbreak of the Philippine revolution. This backward economic development of the island was due to the monopoly of economic prosperity by the rich, through timber and grazing industries. During the Spanish colonization, the decrease of forest cover in the Philippines, in general, reached 0.16 percent (Bankoff, 2007). A big percentage of this forest decrease could have been most likely from Masbate because the island was the most popular supplier of cattle to Luzon to feed the revolutionary forces fighting the Spaniards during the Philippine revolution (Pelorina, 2012). This lopsided economic condition breeds dissatisfaction from the common people which later on turned into an open hostility. In fact, in 1890 Worcester noted the disturbance of the relative peace in Masbate by the "bad accounts of the residents of the extreme southern portion of the island" (Worcester, 1899). These residents were no other than the *Dios-Dios* (later on renamed *Pulahanes*), a peasant organization in Barrio Tanque, Cataingan (now part of the town of Pio V. Corpuz) and challenged the Spanish colonial power in Masbate and their elite supporters. This peasant organization led by the legendary Visayan *Pulahan* leader Pedro Kipte, a migrant from Barrio Olivo, Tuburan, Cebu, defeated the Spaniards in 1898 and ended Spanish rule in the island (Ataviado, 1999; Personal interview with Pasifico Kipte, 2009). Masbate was the first province in Bicol where the Spaniards were defeated and dislodged by the *Pulahanes* under the leadership of Pedro Kipte. All the Spanish residents in this province together with their elite supporters escaped to Ilo-ilo where they had their temporary headquarters after their head of the colonial power (*Intramuros*) surrendered to the Americans.

AMERICAN OCCUPATION AND THE TIMBER INDUSTRY IN MASBATE:

From 1870s until the outbreak of the Philippine revolution in 1898 in Masbate, one of the industries where the Spanish colonial government derived source of income was the timber industry. During the establishment of the Filipino revolutionary government (Politico-Military government) under Colonel Vicente Trivinio that lasted only more than a year timber industry continued and became the source of income of this new government and the people of Masbate. The cattle industry was seriously affected by a disease called rinderpest about a decade or so. This dangerous disease killed about three fourth (3/4) of the cattle and carabaos in the province. Thus, timber industry was the only prospect source of income for the government and the people in general (US Annual Report of the War Department, 1900).

The Americans reached Masbate in May 1900 and successfully occupied the island from the Tagalog revolutionary government headed by Politico-Military Governor Vicente Trivinio who formerly ruled Masbate from the hands of the *Pulahanes* led by Pedro Kipte, who in turn took over the island from the Spaniards. The former military leader of Masbate, Bonifacio Serrano, told William Howard Taft in one of the meetings during the establishment of the civil government in the island that timber industry was

the “considerable asset of Masbate and that a good profit could be derived from it through export” (Ibid.). As a ranking military official, it was very likely that Serrano was also involved in timber industry in Masbate together with the Tagalog Colonel Vicente Trivinio as Military Governor during the existence of the revolutionary government for more than a year. Serrano’s statement was confirmed or corroborated by one of the American soldiers who were with the American expeditionary forces under the command of Colonel Edward Hardin. In his letter to his family and friends in the United States, James H. Boulware stated that he saw “lots of logs lying around the beach which had been squared and are 2 feet square and some are at least fifty feet long” in Palanog Port”, the port of Masbate, which he described as “one of the most beautiful places I have ever seen for a sea port” (Hopkinsville Kentuckian, 3 July, 1900). Through this meeting, the Americans became fully aware on the economic conditions of Masbate and the economic prospects that await them after the island had been occupied. This meeting was their way of knowing the assets of Masbate Island and to act on it in a way that they could somehow get something in return.

To realize their imperialistic objective, the Americans opened Masbate for business on 1st June 1900, only twenty eight (28) days after the American expeditionary forces’ arrival in the island. There were places which were opened for business, namely, the capital town of Masbate, Milagros, Magdalena (now only a Barrio of Baleno), Mandaon, Palanas, Uson and Cataingan. They did this in collaboration with and support from the elite. Like the Spaniards, the Americans continued the commercialization of Masbate’s timber and other forest products by creating a Forestry Bureau in Manila. The Forestry Bureau was one of the first agencies that were established by the American colonial government in the Philippines with Captain George P. Ahern of the 9th U.S. Infantry as its first director under the Military General Order No. 50 on 14 April 1900 with the intention to control and exploit the forest products in the Philippines (Bolinao, 2005). In fact, this had been the case since the outbreak of the Philippine revolution because a lot of buildings, houses and bridges had been destroyed by both Filipinos and the Spaniards. In addition, the people whose sources of income were destroyed by the war engaged in itinerant illegal logging for their survival (Ibid.). During the early American colonization of Masbate *kaingin* farming became common due to increase in population. From 1908 to 1915, migrants from Cebu and Bohol settled in Southeastern Masbate particularly in Limbuan (Pio V. Corpuz today) and engaged in *kaingin* farming (HDP Barrio Tanque, Pio V. Corpuz, Masbate, 1952). Influx of Cebuano migrants continued up to 1936 and settled in Barrio Daraga, Placer and Alegria (formerly part of Cataingan). Population increase, therefore, contributed to the forest denudation of Masbate due to the increasing number of *kaingiros*.

During the early American colonization, the Philippines turned from timber importer to timber exporter and became the important supplier for global market (Maohong, 2012) and no doubt Masbate Island had a very important role in timber exportation. At this particular time trading vessels soon arrived to the Port of Palanog in the capital town of Masbate to engage in business. In order to effectively carry this out, the Americans gave licenses to timber, firewood, dyewood, rubber, gums and gutta-pecha to fifteen (15) timber concessionaires’ elite families in Masbate while some were from the other neighboring islands from 1 July 1900 to 15 July 1901 (Sargent and Wilcox, 1900).

It is interesting to note that the Americans had given business privileges to the elite as additional reward for their loyalty, aside from the government positions that were offered to them. The official American declaration by the then United States President William McKinley that the exploitation of natural resources of the Philippines was “for the happiness, peace and prosperity of the Filipino people” (Jenkins, 1954) cannot be accepted at face value. In the end, it was the United States colonial administration and their elite supporters who benefited out of it. The fifteen concessionaries of the timber industry in Masbate, their respective locations of operations and the corresponding years they got their licences from the American colonial government were: Ramon Sanz (Masbate, 1900), Carlos Serrano (Masbate, Ticao and Burias, 1900), Vicente Trivinio (Masbate, 1900), Emilio Peni (Masbate), Carlos Planes (Masbate, 1900), Joaquin Bayot (Masbate, 1901), Jose Zapiram (Masbate, 1901), Isidro Protusada y de Loyola (Masbate, 1901), Geminiano Zurbito (Masbate, 1900), Daniel Coryll (Ticao, 1901), Mariano Moreno (Masbate, 1901), G.L.M. Saxton (Masbate, 1901), Juan Rodriguez (Masbate, 1901), Tomas Blanco (Masbate, 1901) and Teodoro Jatco (Masbate, 1901) (Ibid.). Looking at the

names listed above, one can easily notice the inclusion of the prominent elite clans in Masbate who had been in the government positions since the Spanish colonization as timber industry concessionaires such as the Serranos, Trivinos, Bayots and the Zurbitos. The spacious and beautiful houses of these elite (except the Trivinos who originally came from Marinduque) in Masbate located along the beach together with those of the Spaniards who left for Ilo-ilo during the *Pulahan* attack “are filled with fine Mahogany furniture” (Hopkinsville Kentuckian, July 3, 1900).

The Americans vigorously pursued the timber industry in Masbate as a source of revenues for the provincial treasury like what the Spaniards did since the 1870s until the outbreak of the Philippine revolution. As the first Military Governor of Masbate appointed by the Americans, Bonifacio Serrano, in his annual report from 2 May 1900 to 31 May 1903, revealed that Masbate’s provincial treasury had deposited the considerable sum of US\$57.81 and US\$5, 882. 59 (in local currency) with the New York Guaranty and Trust Company (US Annual Report of the Provincial Governor, 1903). This was the revenue earned by the provincial government from the logging companies operated in the different parts of Masbate within three years of American colonization of the Philippines. This income, however, could hardly make up for the economic crisis in the province caused by rinderpest that killed thousands or almost three-fourths (3/4) of cattle and carabaos in the island which was described by the American press as “woes in Masbate” (US Annual Report of the War Department, 1901). In addition, locusts plague and drought destroyed the crops that largely contributed to the extreme poverty of the people. Masbate and Burias Islands were favourite breeding grounds for locusts since it is highly cogonal. Cholera epidemic, moreover, seriously contributed to the economic crisis in Masbate. Almost all towns in this island were ravaged by cholera epidemic which was believed to have started in San Jacinto in Ticao Island and spread to different parts of the province. The total number of people affected in the island was four hundred and ninety seven (497). Of this, the total numbers of death were two hundred ninety one (291). Higher percentage of deaths was caused by cholera epidemic than those affected by the war. As far as records are concerned only about thirty (30) people killed in the war between the Masbateños and the Americans compared to hundreds killed by cholera epidemic (Pelorina, 2012). Of all the islands in the Philippines, Masbate got the highest number of deaths from cholera epidemic which constituted 26.4 percent of its total population (US Bureau of Census, 1903). With the serious economic effects brought about by the rinderpest to the grazing industry and the locust infestations that destroyed the crops of both the sedentary and *kaingin* systems of farming in Masbate, timber industry became the only source of income for both the American colonial government and the people in general. Those “able-bodied persons not engaged in other works” who remained resistant or unaffected by the cholera epidemic had been the source of labor force for timber industry (Annual Report of the Provincial Governor, 1903). In addition, the *kaingiros* in the interior of the island must have been the source of labor force as well for this industry was controlled by the elite who enjoyed the protection of the American provincial government.

It is surprising to note that the pursuance of timber industry was not only made as a source of provincial revenues. The cutting of trees in the mountains had something to do with the American military campaigns against the *Pulahanes* in Masbate who entrenched themselves in the interiors to challenge the American colonial government’s power. It must be recalled that only the Revolutionary Government’s officers headed by Captain Vicente Trivino who surrendered to the Americans in Masbate. The *Pulahanes* who had been the enemies of Spaniards and the Revolutionary Government continued to pose a threat to the Americans. The clearing of Masbate’s forests was part of the American military campaign and an advantage of the American troops together with the Philippine Constabulary in military operations. This could be an advantage for the Americans’ to get familiar about Masbate’s terrain. In this case, the ‘brigands’ (*Pulahanes*) who had their camps in the forested areas could be easily flushed out from their hiding places and be killed or captured (Pelorina, 2012).

This American military strategy was effective. The *Pulahanes* gradually found it difficult to stay in the interiors of Masbate because the American soldiers and the Philippine Constabulary penetrated the mountains that had been cleared by the logging companies. This strategy against the *Pulahanes* was coupled with the establishment of telephone and telegraph lines in Masbate that could immensely help the Americans in their military operations. Telegraph lines were established between Masbate and

Sorsogon, Masbate to Romblon, the capital town of Masbate to Cataingan in the south and the capital town of Masbate and Aroroy in the north. With effective communications in place, American soldiers were highly mobile and could easily detect the movements of the *Pulahanes* (US Bureau of Census, Census of the Philippine Islands (1903).

As the situation in Masbate became increasingly more difficult due to the relentless American military pursuit, the *Pulahanes* had decided to move to safer Visayan Islands such as Samar and Leyte to continue with their resistance. Located in the eastern part of Masbate, Samar and Leyte had thick forests then where the *Pulahanes* could hide and establish their camps. Under their able leaders named Leon Arco and Andres Villasis, the *Pulahanes* left Masbate and reached Leyte. There, Andres Villasis used a pseudo-name Enrique Villareal to hide his identity. As they did not have cordial relations with the other group of *Pulahanes* in Leyte, they left this island again and proceeded to Samar Island where they established their bigger camps in the town of Catubig in Eastern Samar. In Samar Andres Villasis used another pseudo-name, Enrique Dagohob. Dagohob means a 'strong wind' or 'thunder' in Visayan language. This pseudo-name manifests Andres Villasis' agility in battle that brought fear to his enemies. It was in the middle of the thick forest of Samar, after a few years of fighting, that the *Pulahan* leaders of Masbate were finally cornered by the Americans and killed in the war (Pelorina, 2012).

When all the provinces of the Philippines had been conquered and civil governments were established, the Americans converted the Philippines as the exporter of agricultural products while making this country as the consumer of its man-made finished products. Philippine timber was sold both in local and foreign markets. There was huge demand for timber in the local market that started from 1917 due to the rise of new industries such as the abaca and copra industries in Mindanao, sugar central (*azucarera*) in Negros and Ilo-ilo and due to the need for timber for the Division of Quartermaster of the United States Armed Forces and the U.S. construction of ships in the Philippines. Masbate was one of the sources of excellent timber for the sugar central in Negros and Ilo-ilo particularly in the southeastern part of the island. Dalipe, a *sitio* of Guiom which used to be a Barrio of Milagros (now a Barrio of Cawayan) was the very place where the steady supply of timber in these two Visayan provinces was located during the American colonization. Facing Visayan Sea, Dalipe is situated near the river bank suited for landing purposes where there were facilities to load or unload cargos. In 1926 to 1927, thousands of *tabliezas* of molave tree negotiated by a certain Dona Cristina Vda de Berdote were deposited along Dalipe's river bank. These pieces of fine and durable wood from Masbate were periodically loaded to *Batel* (cargo ship) and brought to Negros and Ilo-ilo to be used in sugar central (HDP Dalipe, Cawayan, Masbate, 1952). There was also high demand of timber in the foreign market especially the famous Philippine Mahogany, red and white *lawaan*, and *apitong* of which Masbate Island was one of the known source. Aside from the United States, several countries such as Great Britain, Australia and China imported first class timber from the Philippines. In addition, Japan imported Philippine timber from 1923 and 1924 due to the strong earthquake that hit at Tokyo and Yokohama that destroyed a number of houses and industries (Bolinao, 2005).

Even with the establishment of the Commonwealth Government in 1935, the Americans still controlled the Philippine economy which made this government continued to be economically dependent upon the United States. When World War II broke out and the Allied Powers led by the United States emerged victorious against the Axis Powers, the Americans paid the Philippines the war damage it caused during the war. In line with its war damage payments, the United States 'requested' the Philippines to get its war reparations from the Japanese Government in exchange for exporting its timber to Japan (Maohong, 2012). This United States' decision was purportedly "to keep Japan in the economist bloc against socialist or communist countries particularly China". As the newly established Philippine government continued to look up to the United States as an indispensable ally in the field of foreign relations, the Philippines acceded to this 'request' and since then it exported its timber to Japan for this country's post war reconstruction (Ibid.). The United States ended its physical domination upon the Philippines from 1946, but it continued to control its economy, a condition that lead to another form of colonization i.e., neo-colonization. This new development led the Philippine forest to be exploited even more and this, of course, included Masbate's forests.

Based on the facts presented above, it is clear that the Americans continued the forest denudation in

Masbate by legalizing the timber industry. The plan was conceived to address the economic crisis of the island and to be the source of revenues for the provincial treasury. Moreover, clearing of trees in the forest was also used in military operations to penetrate the mountains of Masbate where the *Pulahanes* had been hiding. With its double purpose role of economic and military strategies, timber industry in Masbate was pursued to the maximum. With the American colonial government in power, Masbate's forests were further denuded which led to the ever widening grassland areas in the interiors of the island. In fact, during the American domination of the Philippines for almost 50 years (Japanese occupation included for more or less 3 years) the average rate of decrease of forest cover reached to 0.71 percent than compared 0.16 percent of Spaniards. This number is significantly higher than the average decrease rate during the Spanish colonization (Bankoff, 2007). This study cannot provide the specific figure on how fast was the average rate of the forest exploitation of Masbate Island alone during the American period. But it can be safely inferred that based on the national figure that the case in Masbate would most likely reflect the same if not a more serious trend.

MASBATE'S FOREST DENUDATION AND ITS CONSEQUENCES:

Deforestation or forests denudation had serious irreversible effects on the ecosystems that cannot be remedied without a realistic program of reforestation. It will lead to serious environmental damages that affect, for example, the farmers' potential productive capacities. As had already been pointed out grazing industry emerged out of the decreasing forest cover caused by the Spanish program of timber exportation at the advent of the cash crop economy. This may seem good because it indeed contributed to the economic development of Masbate Island and the Philippines in general since the Spanish colonization (Seachon, 1976). However, the reality was that this industry was monopolized by the elite in the province who owned vast tracts of land devoted for cattle grazing. Its economic contribution did not redound to the common people who composed of the majority of the population. Moreover, grazing industry occupied large spaces that could have been devoted to farming. *Kaingiros* may have been largely affected by grazing industry that lead to the loss of their *kaingin* in the interior that had been cleared through timber cutting. The case in point was the presence of Valdez, Moñuz and Martinez *Haciendas* in the town of Cataingan in the south. In fact, the word 'cataingan' is derived from the Visayan word "*kataihan*" which means 'place of manure'. The presence of these *haciendas* in Cataingan had been the bone of contention that led later on to the dissatisfaction of the people which culminated in the end of Spanish colonial power in the province (Pelorina, 2012).

Soil erosion is another problem brought about by forest denudation. Soil erosion caused rapid soil infertility that seriously affected the soil's capacity to produce good harvest for the farmers. Soil erosion is one of the serious problems of Masbate after the forest had been cleared. This province is one of the islands in the Philippines with severe erosion (Wernstedt and Spencer, 1967). Forest denudation caused landslide during storm although Masbate is not prone to these natural calamities because its elevation is not as high as those of other islands. It also led to flooding during heavy torrential rain and storms. When a typhoon passes through the area where forest had been cleared, mud and silt washed out from the bare mountainside and deposited in the sea which would result to death of marine resources and in turn reduced the income of those who are dependent on them, like the fishermen (Maohong, 2012). A case in point in Masbate Island is Guiom, its former capital during the early Spanish occupation of the Philippines which became a commercial center (HDP Barrio Magsalangi, Milagros, Masbate, 1952). Guiom used to have a fine port where big ships could easily anchor because of its deep water level. In fact, the place is synonymously called '*daungan*' (port) because of its former strategic location in the Asid Gulf facing Visayan Sea. In the long run, however, due to the repeated clearing of its forests, soil erosion became serious due to which mud and silt washed out and deposited in the sea. Today, big ships can no longer anchor in Guiom causing the place to have been deserted by its inhabitants especially merchants who preferred to move to another place in Masbate. At present, Guiom is considered as a 'dead barrio' (Personal interview with Pasifico Kipte and Isaias Peritos, 2009).

Forest denudation led to climate change. The decrease of forest cover reduces the potential for normal rainfall which may cause water shortage that will render the farmland into barren land without moisture (Maohong, 2012). The atmosphere becomes hotter after the loss of trees in the forest and crops cannot

flourish because the atmosphere gets drier due to absence of moisture. Since forest is an absorber of carbon dioxide, its absence will contribute to the warming of atmosphere not only in an immediate environment where forest had been removed but even in the surrounding places or islands. In effect, forest denudation in Masbate contributed to the national and even global warming. Of all the islands in Central Philippines and in the Sibuyan Sea, Masbate together with Romblon, Cebu, Negros and Bohol have the hottest climate (Wernstedt and Spencer (1967).

Animals and birds out-migration is also the consequence of forest denudation. Forest is the natural habitat of wild animals and birds. If the forests are denuded, their natural habitat are disturbed and destroyed. Destruction of natural habitat caused animals and birds to migrate to places where forest still exists. Some of them, however, would become extinct or listed as endangered species if forests are entirely destroyed as they are completely dependent on forests for its livelihood. Such species include but not limited to Philippine tube-nosed fruit bat, the Philippine bare-back fruit bat and the Visayan spotter deer (Maohong, 2012). Moreover, arboreal such as monkeys, civet-cats, wild ducks and unique or exotic birds like Kalaw which is common in Masbate particularly in Ticao Island had become extinct or endangered species because of the removal of forest cover (Personal interview with Fortunato Pelorina, 2009).

CONCLUSION:

Forest denudation in Masbate was not caused by its prehistoric people of prehistoric period of its history as claimed by archaeologist Jan Bay-Petersen. Instead, it started in colonial period of its history, the Spanish colonization, particularly in the middle of the nineteenth century. Timber industry was the consequence of the cash crop economy based on exportation of forest products at the advent of the world trade in the middle of the nineteenth century. This industry in Masbate Island was pushed through due to the small number of population that could cultivate the land which resulted in economic stagnancy. The economic prosperity on which the timber industry was premised on was not attained because the Spaniards together with the elite monopolized this industry. It led to the graver economic condition that breed dissatisfaction and hostility among the people which culminated in the revolution that ended Spanish rule in the island.

The Americans did the same thing. Timber industry was highly commercialized by creating a Forestry Bureau that monitored and directed timber exportation. Under the guise of addressing the economic crisis in Masbate during the revolutionary period, the American pursued timber industry by giving license to the elite who were their political supporters as well. Like what happened in Spanish times, big chunks of economic benefits derived from timber industry went to the American colonizers and the elite. Forest clearing was also one of the American military operations strategies against the *Pulahanes* who hid in the mountains and this strategy was effective leading to the end of *Pulahan* resistance in Masbate. In 1900, the Philippines became a timber exporting country to the world market and the decrease in forest cover was even faster. Shifting cultivation or *kaingin* type of farming is not the cause for forest denudation as it was a sustainable one. What is destructive was the commercial logging practiced by the Spaniards and the Americans. Exploitation of forests in Masbate was the consequence of the Spanish and the Americans' insatiable appetite for wealth at the expense of its people who are now bearing the brunt of its lasting negative effects.

Its consequences are damaging to the environment. Loss of biodiversity cannot be restored back to its original state. Unlike the indigenous concept of forestry, the modern concept which is based on science regards forests as something that can be exploited for material gain. With its loss of forest reserves, Masbate becomes a barren land and agricultural production is not sufficient to feed its people until today. Overall, grassland in the Philippines constitutes 17 percent of its total land area distributed in such provinces as Cagayan Valley of Luzon, Western Mindoro, Southern Panay, Negros, Masbate and Bukidnon of Mindanao. Of all these provinces and islands, however, Masbate had the widest grassland which is 74. 2 percent of its total land area after the Philippines becomes an independent state. This figure will led one to conclude that a plunder of this once a paradise island was due to the Spanish and American extreme desire for wealth accumulation which is actually the real motivation for colonization.

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