

Foreword

ur ancestors lived peacefully with nature. If they did so, it was because they become one with it. Nowadays, however, people care less and less about nature. Greed and technological advances have made humans overlook nature's purpose. The continuing decline of forest resources is a vivid evidence. Having observed such scenario, an anonymous author wrote: "What nature so graciously provided, man so passionately destroys..."

In parts of the Cordillera region, it is interesting to note that there are indigenous forest conservation systems adopted by the mountain people from their ancestors; thus their forests are preserved. These systems however are slowly fading.

With this book, it is hoped that the present generation will appreciate their ancestor's wisdom of conserving forests, and that other people recognize and adopt the treasured indigenous way of maintaining forests as that in some parts of Mountain Province. Without gainsaying, if we allow our forests to deteriorate, humans and all living things will surely deteriorate as well.

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INTRODUCTION

Forests are vital life support systems. Hence, they must be conserved and preserved in order to maintain an environment favorable for human habitation and for sustainable agriculture and biodiversity. Forests provide the basic needs of people such as fresh air, clean water, fruits, vegetables, fibers, fuel wood, fodder, timber and many more.

Philippine forests are very rich in biodiversity, and are once covering an extensive area. However in the last four decades, the Philippines has experienced extensive degradation of its pristine forests. As shown in Fig. 1, the area of Philippine forests have diminished from around 17 million ha in 1934 to only 5.392 million ha in 1997, or an annual deforestation rate of about 184,254 ha. As reported in 1997, the Cordillera Administrative Region had a forest area of around 771,616 ha. However, after seven years, only 639,893 ha remains; in other words, between 1997 and 2003, there has been an annual deforestation rate of about 19,000/ha (Fig. 2).

Illegal and improper timber extraction, conversion of forest to settlements or vegetable gardens, and other causes and signs of forest destruction (Plate 1) are rampant, without regard to their serious threats to the environment and the country's development needs. In the face of this situation, some localities nevertheless still hold on to their traditional practices of either maintaining or widening their forest.

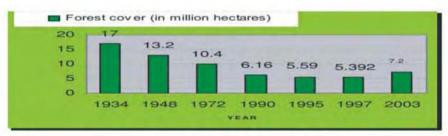


Figure 1. Forest cover in the Philippines

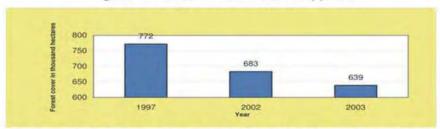
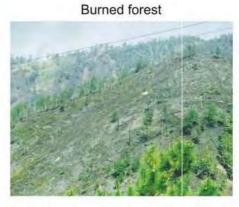


Figure 2. Forest cover in the Cordillera Administrative Region

Forest fire | Illegal logging/timber poaching



Trees cut to transform the land into kaingin





Mount Data Plateau mossy forest converted into vegetable gardens





Plate 1. Various causes and signs of forest destruction

Plate 1. Continued . . .



Aware of the life-sustaining benefits derived from forests, some of the indigenous peoples of the Cordillera Region have evolved their own indigenous forest conservation systems. Although bearing different names, these systems share one identical aim: the establishment, protection and conservation of forests in order to sustain source of wood and water and to ensure sound environment. These systems, which include the *lapat* of Abra and Apayao, the *muyong or pinugo* of Ifugao, and the *lakon or saguday* or *batangan* of Western Mountain Province, have evolved for years based on traditional or indigenous knowledge passed on from one generation to the next. They ensure the maintenance of sufficient forest cover in the Cordillera, the watershed cradle of Northern Luzon.

This book focuses on the *lakon/saguday* system of Western Mountain Province. It presents how forests are established, maintained, owned and sustainably utilized, and how the problems or conflicts affecting the system are solved.

Benefits from Forests

Undoubtedly, the culture-based development and conservation of forests in Western Mountain Province evolved from their ancestors' knowledge of the life-sustaining roles of forests: to provide foods such as wild animals, fruits, vegetables, mushroom, honey, etc.; to provide medicines, fuelwood and timber/lumber; to provide clean water and air; to serve as grazing grounds; and to remain the spirits' abode. The present generation enjoys fewer benefits because of the loss of enormous forest cover. Plate 2 presents some of the major benefits derived from forests.

Beauty of Thickly Forested Mountains



Watershed reserve in Sagada



Mossy forest in Mount Pulag National Park

Waterfalls, Springs and Rivers are Sustained by Forests



Bomod-ok falls in Fidelisan, Sagada

Inudey falls in Tadian



Waterfalls in Besao

Plate 2. Some major benefits derived from forests

Plate 2. Continued. . .



Irrigations sustained by forested watersheds



Forests provide the fuel that warms the *dap-ays* and that are used to cook food in every household



Minor forest products



Spring with enchanted eel in Cagubatan, Tadian



Springs sustained by forest



Home of wild animals



Home of bees that provide honey and wax

Plate 2. Continued. . .



Medicinal trees and herbs



Picnic grounds and trekking sites

Lubon, Tadian



Banao, Bauko



Bangguitan, Besao



Ankileng, Sagada



Plate 3. Representative woodlots (lakon/saguday/batangan) in Western Mountain Province

Management System

The *lakon/saguday* as a forestation system is sustained through the following essential interrelated components: indigenous socio-political institutions, customary laws/rules, beliefs and indigenous knowledge.

Institutions Responsible

Lakons/sagudays are established and maintained by owners: individuals, family, clan, dap-ay or the community. The administrator is the head of the family for the family-owned lakon/saguday, the head of the clan or a designated caretaker (menbantay) for the clan-owned, the elders for dap-ay-owned, and the village elders and/or leaders for the community-owned. As reported in Sagada, all forests in the community were overseen by kumiti - a person or persons chosen by the elders. The kumiti serve as forest guards with authority to decide and impose/collect penalties from violators of forest rules. The installation of a person as kumiti head/member entails a ritual that involves the butchering of a dog (Pogeyed, 2000).

The overseeing of forests by said *kumitis* and the elder's role in regulating forest use have been reported to be transferred to the local officials.

Dap-ay roles in lakon/saguday management. In traditional Igorot communities, the dap-ay, also called abong, ato or ator, formulates policies and implements them. It has been the governing body in these communities even prior to the entrance of a formal government, which ensured the carrying out of the communities' customs and traditions. According to Scott (1985), "the dap-ay had been considered to be the pulse of the local forest community as a whole that maintains ecological stability in its environment, implements general principles among its constituencies, fosters solidarity, and limits individual leadership." Pogeyed (1994) describes the dap-ay as an institution vested with power and authority where customary laws, rules and regulations of a village emanate. The Igorots live by the unwritten rules formulated in the dap-ay.

The dap-ay is essential in sustaining forest resources in Western Mountain Province because it regulates activities relative to forest establishment, ownership, protection and utilization. It solves conflicts and decides penalties to be imposed on forest law violators within or outside their communities.

Each family is affiliated to a *dap-ay*. About three to 20 *dap-ays* may be found in a community. A community with a high population generally has more *dap-ays* than those with a low population. As a traditional custom, only males are allowed to enter, visit or be entertained in the *dap-ay*.

The common physical structure of a dap-ay is the semi-circular stone platform. In the olden times, there is a small hut beside it made of cogon grass and wood (Plate 4). Recently, the cogon grass is replaced by galvanized iron for rooftops and cement for walls. Some communities have converted their dap-ays into two storey buildings to serve as dap-ay and barangay halls.

Leaders and decision-makers in a dap-ay. A council of elders, locally called amam-a (Plates 5, 6 & 7), serve as decision-makers in dap-ays. The decisions they make command the highest respect from the villagers because of their seniority, exemplary deeds for their community and rich life experiences.



One of the oldest *dap-ays* in Sagada, located in Tetep-an



Dap-ay in Dagdag, Sagada



A dap-ay in Besao



A dap-ay in Bagnen, Bauko

Plate 4. Photos showing representative dap-ay structures

According to Prill-Brett (1994), "when gathered as a single body, the elders are composed of the judicial, legislative, and executive body of the *ili* (village); each elder, taken individually, has no power to make decisions for the *ili*. These old men try cases involving community members and impose fines based on the nature and mode of committing violation; attitude, age, mental condition, and ability of the violator; and precedents. They amend customary laws and create new ones as they deem necessary. They schedule the agricultural calendar, declaring the "rest" days, "work" days, and community welfare ceremonies





Plate 5. Amam-a with young men of Sagada marching towards the dap-ay during an agricultural ritual called begnas



Plate 6. A dap-ay elder in Dagdag, Sagada holding a takba, believed to contain the spirits of the departed clan elders who were former members of the dap-ay. The takba is brought to the dap-ay during the begnas so that the departed spirits from whom the living members will invoke blessings will participate in the ritual.

(Plate 7). They also advise or counsel villagers who need help, though such is a function normally being taken care of by their particular ward.

The council of elders are strictly obeyed by their wards. In the management of forests as in the *lakons/sagudays*, their roles include designating caretakers or *kumitis*; setting limits or pointing the boundaries of *lakons* which owners may maintain; setting limits for harvest and making other regulatory measures; hearing and resolving cases such as boundary conflicts, burning of forests, illegal cutting, etc.; performing rituals such as



Plate 7. Amam-a of Besao gathered in a dap-ay to discuss the conduct of their teppeng, a thanksgiving ritual for their harvests

offering in *papatayan* and areas considered sacred that include forested mountains; and deciding and implementing penalties to violators of *lakon/saguday* rules, all of which redounds to the welfare of the *umili*.

Women's intervention. The *dap-ay* is an emblem of men's authority over traditional communities; however, women are consulted prior to decisions especially when women are involved. The modern times bring equity of participation on community affairs for both men and women. Women's interventions in regulations for community welfare are surprisingly very effective as could be demonstrated by two reports in Northern Sagada: (1) A group of women, later known as LAPED (Ladies of Aguid and Pide for Environmental Development), seized and impounded a truckload of pine lumber that was harvested from their communal forest by illegal loggers sometime in 1996, and (2) In the earlier times, another group of women were reported to have stopped a pocket mining operation in the place by barricading the tunnel with their bare bodies. Such kind of women's actions crop up especially when policies or decisions are not being adhered to.

Customary Laws/Regulations/Practices

Ecologically fitting customary laws and regulations and practices govern the *lakon/saguday* system. Based on knowledge acquired through years of existence and experiences, the elders formulated and implement such laws and regulations.

Establishment of lakon/saguday and its ownership. The Igorot's attitudes towards land greatly influence the land tenure systems in Mountain Province. There was a time when mountains were only good for grazing or pasture lands as there has been only a few trees seen in the mountains. With the rising need of timber and firewood, people planted trees at certain grazing or bare areas in the mountains within their village. Eventually, they have come to a common understanding that the areas wherein individuals, clans or the community have planted trees become their own, with the right to regulate the use of their respective claims. Customarily, the Igorots are allowed to make kaingins in any unclaimed area or forest within their territory except that which supports water resources and is a sacred site, introduce improvements therein and claim exclusive right over the same area as long as they continuously utilize it. Improvements include crop lands and grown timber and/or fruit trees. As reported, some crop lands that become unproductive and previous kaingins were planted to trees. Without permanent improvements such as timber and fruit trees planted, used open lands may revert back to being communal property if no longer utilized, but children or grandchildren of previous users may reclaim said area based on the primus occupantis or "first to occupy the land by clearing and using it" or the "pioneer principle" (Prill-Brett, 1994).

Lobchoy (undated) reported that the present batangan/saguday in Besao were once open lands free for use by anyone in the municipality. The establishment of rice fields or farms for the production of cash crops on these open lands often requires fencing and/or establishing barriers like deep canals and high earth mounds, to prevent animals like cattle and wild boars from destroying their crops. The area enclosed by fence and/or other boundary markers indicates the limit of the parcel of the land claimed by individuals, families, or dap-ay group. In a village, certain areas are designated by the elders as source of firewood and lumber or as watershed for the whole community. Areas supporting water resources and those considered sacred are automatically deemed as community-owned protected areas.

From the ancestral territory of the *umili* (villagers) emanates the individual, family, clan and *dap-ay lakon/saguday*. Prill-Brett (1998) reported that in the Cordillera, villagers claimed prior rights to territory on the following bases: (1) the extent of built ricefields and set up permanent hunting traps; (2) the frequency of hunting in the area; (3) the being first to tap water from mountain springs to irrigate the fields; (4) the extent to which pasture lands

were used continuously by the community; and (5) the improvements made by the same community on swidden gardens in the forest. Similarly, Pogeyed (1994) reported that ownership of the communal forest or lands of the community is based on the extent of their use as a source of water and raw materials, hunting grounds and/or pasture. Such lands are assumed as their territorial jurisdiction and protected from intrusion by adjoining communities.

As an individual or family makes *kaingin* in allowable areas of its territory and later develop them into tree plantation, or as it develops open lands into forest, the area becomes its own *saguday* or *lakon*. Individual or family forests usually become corporately-owned. For a few with a large area, it is subdivided among the heirs or is given to just one heir (Pogeyed, 1994).

Dap-ay saguday in Sagada comes from the communal forest of the umili, awarded to the dap-ay members in exchange of their heroic services for their tribe such as avenging the death of a member of their tribe or successfully defending their territory from enemies (Pogeyed, 1994). This mode of transfer is called teknang or batog. Dap-ay sagudays may have been established by tree planting on open lands by the dap-ay members as in Besao (Lobchoy, undated).

Clan forest owners gradually increased in number as children are born from each member of the clan and become co-owners of the clan forest. In an identical situation, individual or family forests may eventually turn into corporate or clan forests.

Transfer of ownership. Lakon/saguday may be acquired by inheritance, swapping, and sale.

In Sagada, the common rule in the acquisition of *lakon/saguday* through inheritance is that the eldest child is given the right to acquire the largest share of the property among the heirs. For couples who are entitled to divorce due to their being childless, the customary law is that each spouse may get back his/her individual property, including *lakon/saguday* which he/she inherited from his/her own family. In case of the death of either spouse, his/her property is given back to his/her own relatives. In Besao and Sagada, a family–owned *lakon/saguday/batangan* may become individually owned by virtue of inheritance.

Aside from inheritance, villagers can also transfer *lakon/saguday* by swapping the area or a portion thereof with another person's or family's parcel of land as the case may be if one has to acquire a residential lot within the village. It is the *lgorots'* practice to cluster their homes in the village area.

Another mode of *lakon/saguday* transfer is by sale. Forest lands, especially those which are inherited customarily, can not be sold except when owners are in deep financial crisis that force them to sell their forest or a portion thereof. In case one whole family or clan leaves the community permanently, they may opt to sell their forest to close relatives who are the first-priority buyers of such property. It is only when none of their relatives are interested that it can be sold to any member of the community. Outsiders are not allowed to acquire forest lands in the village except after they have established residence, especially by marriage, and are accepted in the community.

Transfer of property is traditionally announced during social gatherings such as during the wake for the dead, death anniversary or weddings. At times, the recipient and/or donor or the buyer and/or seller usually provide refreshments to those who witness the transfer. As reported by Prill-Brett (1997), acquisition or alienation of a property often entails rituals in traditional/indigenous communities. Lobchoy (personal communication) reported that in Besao, a person who buys a portion of a saguday performs the "senga," a thanksgiving celebration led by the amama. In informing the community members about property transfers, fraudulent transactions involving the same property will be minimized if not totally prevented.

No tax policy. In their ancestral territory, the people are free to extract forest resources for their personal use without paying any charge or fee. According to Pogeyed (1994), no form of fees or taxes is being imposed by the traditional social institution in the utilization of trees in the *sagudays* and communal forest in Sagada since the people protect their claimed ancestral/communal forest from encroachers, forest fire and unsustainable utilization through customary regulations.

Volunteerism. Usually, in gratefulness of being allowed to harvest forest products from someone's *lakon/saguday*, the permittees voluntarily render maintenance services such as helping in tree planting, weeding, pruning and fencing.

Rule on naturally-grown trees. A group of persons may exercise rights over an area of corporate land, and another person over the growing tree/s he has planted in the area but wild trees are generally owned in common (Prill-Brett, 1997). However, there is an observed shift now so that those naturally grown trees in a *lakon/saguday* and those being protected/maintained by them are considered property of the owners.

Bayanihan/Ug-ugbo/Ob-obbo. The noble Filipino bayanihan practice (locally called ug-ugbo/ob-obo) where community members help their fellow villager/s in doing important hard tasks without expecting any payment is still practiced in Mountain Province. In forest management, the bayanihan spirit emerges during sebseb or putting out forest fires; tree planting and care and maintenance in communal lakon/saguday/batangan; timber harvesting, lumbering and hauling of timber products for a villager; and cutting and hauling fuel wood or timber for community affairs, weddings, or during wakes for the dead.

The involvement of several villagers in harvesting timber requested by a co-villager provides an automatic monitoring of the extent by which the requisitioner will follow the set limits and proper way of harvesting in their communal forest or saguday. This is one of the important roles of bayanihan

culture.

Galatis. This refers to a free service/labor rendered by the *umili* for the community. Tree planting in the water source/watershed of the *umili* is usually done by *galatis* wherein a representative from each household is required to render free labor in planting trees, including maintenance.

Borrowing. A villager whose plantations are still young for harvesting may borrow mature standing timber from forest of another person or a clan or a dap-ay. When members of the lending family/group needs timber later, the borrower would give them the amount equivalent to what he has borrowed

Regulatory Measures:

Limitations for harvests. Limits of harvest is based on what is actually needed and the number of harvestable trees. Sustenance of harvestable trees is always a management objective in every saguday/lakon. The contribution of a member in the development and maintenance of the forest may be also considered in the setting of harvest limits. For instance, the *menbantay* may be allowed to harvest a larger volume than ordinary members. In Sagada, harvesting timber from

communal forests is usually limited up to five trees per beneficiary. In clan forests, a maximum of 10 trees may be granted to a member in the case of Antadao, Sagada, but only 1-4 trees per member is allowed in Besao (Lobchoy, undated). For *dap-ay saguday* in Besao, 1-3 trees may be granted to a member. The clan or family members usually formulate and implement their own policy on harvest limits in their own *lakon/saguday*.

Timber harvesting is not allowed near water sources and sacred mountains/sites.

Permission required. Those who harvest forest products are required to acquire permission from the owners or caretakers or officials concerned. Non-community members, as a rule, are not allowed to exploit any forest resource within another's domain without the permission and consent from community leaders. Harvesting minor forest products such as firewood, cogon grass, cones, etc. generally does not require owner's permission as long as harvesting is done in proper manner and damage to the resources is avoided. In the earlier times when only few trees were established near the communities, branches for fuel wood might be collected with the permission of the owners/administrators.

Replacement of harvested trees. Those given the privilege to harvest trees are usually required to plant more than the number of what they have been allowed to harvest in anticipation of seedlings that will not survive before attaining maturity.

Prohibited acts and penalties. Table 1 shows some specific penalties imposed on violators of forestry regulations in selected areas. Important prohibitions include the burning of forests, cutting trees without permission from the owners/administrators (considered as an act of theft), selling lumber especially to outsiders or in other places, going to forest except those ordered to gather fuel wood or other needs during tengaw/ubaya/pakde (community holidays), cutting trees beyond what are actually needed or over the permitted limits, pasturing or other destructive activities on designated water sources, and cutting whole young trees (except for dense regenerations) and live trees of good timber quality for fuel wood.

Forest resources owned in common or by indigenous corporate groups are traditionally prohibited from being exploited and taken out of the community, especially if for sale. A women's group in Sagada is vigilant in

prohibiting the transport of lumber from their communal forest for sale in other areas.

Table 1. Specific penalties imposed on violators of customary law/rules or barangay ordinances for forest conservation/protection

VIOLATION	PENALTY	REMARKS
Selling of lumber taken from communal forest	Paying the value of sold lumber to the community.	As per barangay ordinance in Bangaan, Sagada; dated Oct. 2, 2002
Working during tengaw/ saligao/ ubaya (community holiday)	Paying P100.00 fine and being obliged to provide pig and/or chicken as required by the amam-a for community ritual.	As reported by respondents in Bila, Bauko
Burning Forest	Paying P1,000.00 fine, replanting of the burned communal area, and paying the value of burned trees that are privately-owned.	As per barangay ordinance in Bila, Bauko
	Paying P100.00/ha fine and additional penalty that may be decided by the barangay <i>lupon</i> (council) such as providing one pig for a ritual/ceremony to appease <i>anitos</i> /spirits in the burned area.	As per barangay ordinance in Bangaan, Sagada and respondents' report
	Paying the value of damaged trees, helping replant the burned area, and providing one pig for a ritual. In 2006, two kids of Tanulong who burned a watershed were fined a piglet each and were helped by their grand-parents in complying with the imposed fine.	Applied in Tanulong and Kilong, Sagada as per respondents' report
	Replanting the area, helping maintain re-plants, and providing a pig worth P5,000.00 or more for ritual in the burned area.	As per respondents' report from Antadao Sagada

Burning Forest	In 2005, a farmer from Alab, Bontoc who accidentally burned a part of Antadao forest was fined with only a pig used in the ceremony / ritual for the burned area.	Applied in Antadao, Sagada as per respondents' report
	Decided by barangay elders.	Applied in Pide as per respondents' report
Harvesting/cutting trees without permission (considered as theft)	Owner may demand payment of the value of the lumber taken by the thief or opt to keep the lumber but pay the lumbering expenses.	Applied in Besao as per Lobchoy's report (undated)
	Paying of P3,000.00 fine and payment of the value of the stolen trees.	Applied in Antadao, Sagada as per respondents' report
	Paying the value of the stolen product.	Applied in Tetep-an as per respondents' report
	Paying P1000.00 fine, and logs are confiscated in favor of owner/community.	Applied in Bila as per respondents' report
Cutting trees in communal forest	Paying P500 fine, and harvested products are confiscated for community use.	As per barangay ordinance in Bila, Bauko
Cutting trees in watershed	Providing pig and/or chicken for a ritual to appease spirits of the watershed. Between 1997-1998, three culprits were fined P5000.00 and a pig; and in 2006, two culprits were asked to provide pig and chicken for the needed ceremony/ritual.	Reported by respondents in Tanulong, Sagada

	For the 1st offense, warning and confiscation of tools; for the 2nd offense, native chicken is added for a ceremony to appease spirits.	Reported in Antadao, Sagada
Cutting more than the number of trees permitted for cutting	In 2004, a permittee who cut five trees instead of only four allowed was fined P50/tree cut instead of the P5/tree required fee, and warned. Similar penalty was applied to a permittee who cut eleven trees instead of only five allowed in 2006.	Respondents' report in Antadao, Sagada
Cutting pine trees just to obtain <i>mokon</i> (cones), or to collect resin	Paying P500.00 fine plus P1000 per small tree cut, and value of lumber content for large tree cut at P12/bdft.	Applied in Bila as per respondents' report
Astray animals that damage newly planted trees and other crops in general	Owners are obliged to pay value of crops damaged and pay P20/day for the maintenance of every animal captured.	As per barangay ordinance in Kayan, Tadian
	Animals can be killed (bakag) by crop owners depending on extent of crop damage; or the animal owner pays the value of damaged crop.	As per respondents' report in Madongo, Sagada.

Note: In cases wherein *amam-a* and/or barangay officials are involved in the *tungtongan* (settlement), the violators are usually required to shoulder food for the people gathered. Food often includes an animal that are at the same time used by the *amam-a* for a simple ceremony believed to stop the culprits of committing the same violation and other unwanted acts and/or to appease spirits if the violation resulted to extensive forest damage such as that of an extensive burned area, or to damage of sacred site/tree or watershed/water source.

Traditionally, violators of customary laws on forest protection and conservation are penalized based on the nature of how the prohibited acts are committed, frequency of committing the same act, extent of damage incurred, and status and attitude of the violator. For example, one who burns the forest by negligence may be required to reforest the burned forest stand, replace or repair, if not pay the value of what have been damaged and is required to provide an animal to be used for community ritual; if the burning is accidental or beyond the control of the culprit, a lighter penalty such as reforesting the damage stand, will be imposed. A thief may be asked to return or replace what was stolen, reprimanded or warned and/or compelled to perform hard labor for the community (community service). In communities where minimal fees are collected for every tree permitted for harvesting, the thieves or those harvesting in excess are usually compelled to pay double of required fees or even more and to plant up to 10 times the number of trees they cut. Children who cause forest fire or cut small trees are usually advised and sternly warned not to commit the same mistake. Delinquent children may be subjected to caning/whipping in the dap-ay, in addition to other forms of warnings.

One who burns sacred areas is required to produce what are needed for the ritual, replant the burned area, or repair and/or replace damaged properties, if any. If replacement or repair is not possible, other forms of penalty like paying the value of lost/damaged items or replacing them with other items (e.g., land) may be imposed. For private forests, the penalty may depend on what the owner demands and/or on the decision of the elders and/or the barangay officials involved in settling the case. Usually, a wrongdoer is obliged to provide food and drinks for the people involved in the settlement process and is sternly admonished by the amam-a, aside from the penalty accruing to the violation committed. For the food, a pig, dog, or chicken, or a combination such as that of a pig and chicken, depending on what the amam-a will require, is usually asked from the culprit for butchering. In butchering the provided animal/s, the amam-a will perform a ceremony which includes a prayer that is believed to make the culprit lose the desire to commit the same violations and other unwanted acts. This is known as daw-es or id-idew.

Unfavorable attitudes such as cutting more than what are allowed, non-cooperation in maintenance activities, etc., are grounds for disapproval by the owners/administrators of permit to harvest forest products in lakons/sagudays.

Management Practices

Designation of administrator. The one who has the final say with regard to *lakon/saguday* concerns is the head of the family in family-owned *lakons/sagudays*, the head of the clan or designated caretaker for clanowned and the *dap-ay* council of elders or designated *kumiti* for the *dap-ay* or communally owned *lakons/sagudays*.

Forest establishment practices. The early inhabitants in some parts of Mountain Province were able to convert wide areas of grassland into forest through artificial tree planting. Their goal was to have a nearby source of forest products, especially firewood and timber. Today in Sagada, Besao, Bauko and Tadian, pine trees abound and can be found in areas within and near the villages.

The reported practices on tree plantation establishment practiced by lakon/saguday owners include the following:

1. An ancestor hanged mature pine twigs with mature cones (Plate 8) in trees that grew in mountain ridges within their territory. The seeds dispersed by wind from these cones eventually grew by themselves.





Plate 8. Pine twigs with mature cones

2. Some planted their kaingin and/or open spaces with trees. They might have collected wildings as their planting stocks and/or collected seeds or pine cones and broadcasted (sapuak, Plate 9) them on their areas. For collecting a considerable amount of wildings, the gimata—a pair of woven baskets attached at opposite ends of a wooden pole and carried on the shoulder by a man at the center of the pole, was mainly used as container for transporting. Usually, the wildings were wrapped with banana stalks or

leaves, bundled and carried by the hand, especially if they were only few and the planting site was near.

For fruit trees, seeds might be intentionally collected from eaten fruits and then sown; some seeds were just thrown in the surroundings and left to grow into mature trees, or later balled-out and transplanted in preferred sites.





Besao

Bauko

Plate 9. Young pine stand developed from sapuak (broadcasted seeds) in Besao and Bauko

Cuttings of certain species such as *tagumbaw* (tubang-bakod), dapdap (*Erythrina orientalis*), kakawate (*Gliricidia sepium*) and bamboos were planted, especially along boundaries of lakons/sagudays to serve as fence and/or boundary markers.

Planting was commonly done during rainy season, sometimes even during a monsoon rain period, especially for bare-root or balled-out wildings. Spacing was roughly calculated, usually about two meters apart for timber trees. Phasing of planting was reported. Some respondents said that they planted their area intermittently, planting certain number of trees in the same site at 1- 3 year intervals, thus taking them several years to complete the planting of their *lakon*. Such practice ensures availability of mature trees at different years.

3. Some respondents reported that they just protected their *lakons* and seeds from mother trees around or within were dispersed in them and grew. Others reported that they planted some of the trees and the rest were naturally grown.

Regeneration technique. Some local folks observed that cutting pine trees in groups results to abundant natural regeneration, hence they apply this technique to regenerate pine stands. Replanting is a common practice to replace cut or dead trees.

Care and maintenance practices. The following indigenous forest care and maintenance practices are reported:

1. Weed control through: sapsap or saat – cutting of weeds with the use of a sickle or bolo (Plate 10); dapis - trampling of weeds away from the base of the tree seedlings; bundling long weeds together and tying them away from the growing trees; and lugam or the uprooting of weeds with the use of a trowel or other substitute tools, or with bare hands.



Plate 10. Weed control by lugam

- 2. Watering, applying organic fertilizer (commonly animal manure or compost), and providing shade to newly-transplanted bare-root seedlings. Watering and/or fertilization are mainly applied to fruit trees planted near the houses or farm hut. Cut or uprooted weeds are often placed around the base of planted trees to serve as mulch and fertilizer.
- 3. Pagapag/tugutog (pruning)—removal of side branches, usually collecting the removed materials for fire wood. Proper pruning (Plate 11) improves the trunk quality as timber and its growth. Branches, if not removed and will grow big, results to large knots if the trunk will be processed into lumber. Knots reduce the mechanical strength of lumber; some may significantly shrink, and then fall out of the lumber thus resulting to a hole. If removed, the nutrients supposedly used by the branches will be diverted for the faster enlargement of the trunk and increase of the height of the tree. Pruning is done with care to ensure that sufficient branches are left on the tree crown.





Plate 11. Pruning to collect fuel wood and improve the growth of the tree

4. Thinning, applied to reduce density of growing crops, usually by selectively removing trees with badly-formed branches and/or those with poor growth (Plate 12). Young trees that have been removed or uprooted from dense regeneration may be transplanted in areas with no trees or where very few trees are growing.



Plate 12. Thinning in densely stocked lands

5. <u>Ded-ekan/daekan/sugotan</u>—planting additional seedlings in between widely-spaced trees (Plate 13).



Plate 13. Planting of wildings usually collected from dense regeneration

6. Protection from livestock. Livestock, mainly draft animals, are kept away from agricultural crops and young trees by fencing and/or by tethering them. Fencing is commonly done on private forests and on pasture lands. Common structures to confine livestock in order to prevent them from grazing on newly planted areas include the *tuping* or stone walls, deep trench/canal, or vertically excavated slopes, live fences like rows of trees and/or maguey, and woody stems tied/fastened in latticed form to posts (Plate 14). Today, a commonly used fencing material is the barbed wire supported usually by wooden post, including living trees.



Plate 14. Various forms of fences or barriers for *lakon/saguday/* batangan protection

- 7. Frequent visitation or patrolling. Owners or designated caretakers or *kumitis* often visit their *lakon/saguday* to maintain fences and newly planted seedlings, check possible unpermitted activities and do other maintenance activities.
- 8. Fire protection. In case of fire, the villagers are automatically mobilized to help in fire suppression (locally called *depdep* or *sebseb*), especially if it threatens other properties such as granaries or houses. To avoid spread of fire, farmers see to it that the perimeter of the area (i.e, *kaingin*) or piles of materials to be burned are cleared from combustible materials before setting of fire. Moreover, someone or a group must guard

the area while the burning is going on. Usually, the local church or school bell is rung continuously for sometime to announce an emergency such as burning of forests or a house in order to alarm the people to rush to the burning site and provide help. In some places, the *tangguyob* (carabao horn) or a drum is used to send alarm for help. The respondents reported, however, that this *bayanihan* spirit has significantly diminished. Forest fires in the communal or public forest, when no important properties are at threat, are not likely attended to by the villagers. One possible reason mentioned was the unacceptability of forestry laws to them, specifically the prohibition of timber cutting without permit from the DENR, coupled with the payment of forest charges, even for trees which they claim are protected and/or planted by them or their ancestors.

Harvesting Practices

Selection. In harvesting timber, selection cutting is often applied. Mature, good-formed trees are cut or reserved for timber or lumber and the malformed and dead ones are usually cut for firewood or fencing.

Tools. In felling, bucking and squaring of timber, the axe is used. The two-man saw (Plate 15) is used to convert squared timber into lumbers. During the earlier times, the axe and the adze were only the tools used in lumbering. As a result, only one or just a few thick and crude board/s can be processed from a large tree using these tools. The adze (pandalas), which is similar to the axe, has a blade that is mounted at right angle with the handle. Presently, chainsaws (Plate 16) have taken the place of the axe and the adze. A chainsaw is supposedly used for felling, bucking, removing large branches and slabbing timbers only and not for lumbering due to its thick saw bite (about a centimeter thick due to the imperfection of human hand to control it while sawing). However, it is now used in cutting thick and wide boards into thinner/narrower pieces. Despite the respondents' awareness of the great waste generated in using a chainsaw for lumbering, they totally shifted from their use of the traditional two-man saw to the use of chainsaw in converting squared logs into lumber.



Plate 15. Use of two-man saw in lumbering



Plate 16. Use of chain saw in lumbering

Directing fall of tree. In directing the fall of trees to be harvested, a rope, an undercut and/or a wedge may be used. The rope is tied to the upper part of the trunk of the tree and then pulled to the desired direction as the tree is about to fall. The undercut process involves the cutting of the base of the trunk on the side where the tree is directed to fall to a depth of about $\frac{1}{2}$ to $\frac{2}{3}$ of the diameter, then a cut is made on the opposite side, but a little bit higher than the previous cut. The wedge may be any hard tapering object driven with the taper first into the cut made on the trunk opposite the direction of the fall.

Transport system/practices. Most areas in the province are rough with steep slopes making it inaccessible to vehicles. Because of this condition, the mountain people have resorted to the *paguyod* (Plate 17)—the use of draft animals to drag the timber/lumber, often coupled with the *palayog* or *paagulos* (sliding lumber or rolling logs) downhill—or manual hauling by a single person, or a pair or team of men. In places with strong river current, the timber products may be rafted or transported through the river/water current. Young men wait at the river bank near the village to capture the logs/lumber and carry them to the owner's house. This practice, however, may produce more breakage to the lumber because of strong bumping with the boulders of rocks as they are carried by river current. Irrigation canals also help in transporting cut lumber as in Aguid, Sagada (Plate 18).



Plate 17. Timber/lumber transport by draft animal (paguyod)



Plate 18. Pine tree slabs transported through the irrigation canal

Traditionally, a villager who cut timber for constructing his own house is assisted by other villagers in hauling the timber, including the laying out of the skeletal framework of the house. This is a treasured *bayanihan* system practiced in the province.

Seasoning. Lumber is usually sun- or air-dried to reduce its weight thus making hauling easier. The lumber is either laid flat on the ground or inclined upward over a natural or artificial support. Another practice is the X-filing where pieces of lumber are inclined alternately at opposite directions with the upper ends crossing each other, making an "X" formation (Plate 19). When pieces of not thoroughly dried lumber are piled, stickers (small pieces of wood, splitted bamboo culm, or sticks or *rono*) are placed between them to facilitate air circulation which aids in drying the lumber.







Plate 19. Drying lumber under the sun

Conflict Management

Some of the practices to resolve/or minimize if not avoid forest–related issues or conflicts are: (1) designation of an administrator or *menbantay* or *kumitis*, (2) distinctive marking of boundaries, (3) amicable settlement, (4) referral of cases to elders or officials, and (5) *sapata*.

It is a common practice that the head of the family or clan is designated as the *menbantay*, whose main responsibility is to regulate and oversee the activities in the forest. Conspicuous boundaries are established to easily identify limits of the *lakon/saguday*. Traditionally used are natural markers like creeks, rivers, large rocks, mountain ridges and peaks. Artificial markers include long established and used trails, earth mounds, deep canals, stone walls, and planted rows of trees and/or maguey (Plate 20). Usually, a combination of said markers are seen in a *lakon/saguday*. Conflicts on boundaries, utilization, and other cases related to forest may be settled by the conflicting parties, oftentimes with the mediation of the elders

and/or barangay officials (Pogeyed, 1994). In serious cases where culprits are unknown or cannot be pinpointed due to lack of or insufficient evidence, the most effective traditional adjudication process that is applied is the sapata. In sapata, all possible suspects are made to swear that they are not the perpetrators of the crime at hand and plead that they be punished (usually punishment is specified) by supernatural beings should they be telling a lie. The ceremony is initiated by elders.

The reported tradition of gathering a number of neighbors and/or distinguished leaders/elders when buying or transferring important properties like forest, or announcing the transfer of forest property to buyers, heirs or beneficiaries during cultural gatherings such as after burial of their dead or during reunions or weddings plays an important role in minimizing, or settling conflicts arising from ownership and rights over the resource. The gatherings are effective means of obtaining witnesses and informing the public about the transaction so that unscrupulous claimants or squatters may be discouraged.



Irrigation canals



A large rock used as a corner marker of a forest property



Tuping (stonewall) separating two lakons in Kayan, Tadian



Gaang (deep canal)

Plate 20. Various forms of lakon/saguday boundary markers

Plate 20. Continued...





Rows of trees and/or maguey



Foot trail separating two *lakons* in Banao, Bauko



Creek separating two sagudays in Ankileng, Sagada

Beliefs Related to Lakon/Saguday System

The Igorots have many beliefs associated with trees/forests that influence their actions, and inculcates fear of doing harm to their forests, especially on their watersheds and sacred sites/trees. Promoting forest/tree conservation/protection are the beliefs that trees/forests sustain springs, that unseen beings or spirits reside in forests and old trees, that wasteful utilization depletes forest resources (umapos/maukos), that there are sacred sites and mountains; and that in lawa/inayan, sapata and witchcraft are true.

Trees/Forests Sustain Springs

Forests or trees believed to sustain springs used by the community are given special attention. In the case of Banao, Bauko, two trees

overshadowing two springs in the community are believed to be responsible in producing the said springs. Thus they are strictly protected by the villagers.

Belief on Unseen Beings or Tree/Forest Spirits

Folks believe that certain spirits dwell in forest areas or in trees, springs, rocks or caves. The spirits may be benevolent or malevolent. In some cases, they may cause misfortune to humans. Hence, in Fidelisan, Sagada, pregnant women are prohibited from going to the forests, springs, papatayan or places that are considered pangilin or mangilin (home of spirits) during early morning, high noon and late afternoon. During these times, malevolent spirits are believed to be in the balaan (springs), papatayan (sacred tree), waterfalls, or anything that is believed to be homes of spirits. The forest is associated with essential wildlife (fauna) that humans disturb when they do some tasks in it like hunting, wood cutting, and passing through or exploring as that done by tourists. If spared from human disturbance at specific times such as early morning, high noon, and late afternoon, diurnal wildlife (fauna) that would be frightened for the rest of the hours of the day may have the chance to find food, eat and rest.

Before a tree that is being cut falls, traditional tree cutters shout to warn spirits which are believed to cause misfortune or illness if hurt by the fall of the tree.

Sapata is practiced because they believe that kabunyan (supreme god) and other unseen spirits help bail out rightful people from troubles and punish the culprits. Sapata is not taken lightly. If a suspect or an accused swore through the act of sapata that he did not do the act blamed upon him, a great misfortune is believed to befall him if he lied.

One very important belief of these people is that wasteful or abusive extraction of trees will cause the fast depletion of forest resources or decline of goods and services derived from forests. This belief is associated with the existence of spirits inhabiting the trees or forest or the so-called sacred trees or sacred sites. Some respondents reported that it is their belief that wasteful utilization or destruction of forest will drive away the spirits

inhabiting it and results to shying away (maukos/umapos) or loss of water if the area is a watershed.

Belief in sacred mountains. In Besao is a sacred mountain named Mount Mogaw (Plate 21). Covered with forests, it is where elders perform annual rituals of offerings to ask the spirits for protection from calamities and illnesses, such as that it is called the "healing mountain." This mountain is known to the folks to be the dwellings of bulalakaos (forest spirits/fairies). In sacred areas or in places known as home of spirits, some people can get lost or become ill due to impolite acts such as leaving excreta or creating unnecessary noise such as shouting.



Plate 21. Mount Mogao in Besao, Mt. Province

When sacred areas/mountains (home of *anitos* or spirits) are burned, or damaged, it is believed that the spirits may bring calamities to the village. Thus, when such areas are burnt, a ritual is performed to appease the unseen occupants.

Belief in sacred trees/sites. Areas considered as enchanted, sacred or home of spirits should be left untouched. One who cuts trees therein means bringing bad luck or illness to himself, or a calamity to the community. In Fidelisan, Sagada, two areas are designated as sacred places: pattong, which protects/supports a spring; and podey, which is the papatayan (a place of a sacred tree where animals are butchered for rituals such as the begnas of the village). Papatayan (Plate 22), known as papakdean or pakpakedlan in Bauko, is common in traditional Igorot communities.



Plate 22. Sacred trees in papatayan/papakdean

A tree in the *papakdean* in Tadian, despite having been struck by lightning and now dead but still standing, is still undisposed as it is considered sacred.

If the sacred tree has to be cut as it may pose danger to life and property, the *amam-a* have to conduct a ritual to request the unseen occupants to leave before the tree is cut/removed.

Lawa and Inayan Belief

Elders or parents frequently advise younger generations about the things that they are not supposed to do (the *lawa* or bad/evil things) because doing *lawa* is *inayan* (dreadful). *Inayan* connotes ill/evil things that may happen as a result of doing unfair practices to others. In other words, they fear (*inayan*) doing bad acts (*lawa*). The *lawa* belief could be applied in

forestry practices such as harvesting trees without the permission from owners or *dap-ay* leaders, carelessness resulting to destructive forest fires, and the like.

Belief in Witchcraft

The folks believe in the practice of witchcraft, known as *sapo*. *Sapo* is believed to be real, and effective in deterring pernicious acts such as stealing or causing damages to properties of others. A *mensapo* can cause illness or other evil things on anybody, especially to avenge wrong-doings. The term *sapo*, however, does not only mean a ritual to produce ill effects, but may be used to invoke blessings and good effects through a form of prayer to the unseen (Ngina, 2004). *Mensapo* is no longer popular or known, nor believed by most of the present young generation.

Belief in Trees Unfit for Use

In Ankileng, Sagada, some folks believe that they should not build houses out of trees that were previously struck by lightning. If they do so, lightning will strike the house that will be built by them. In Fidelisan, Sagada, using trees taken from sacred areas in constructing a house is believed to cause bad effects on animals to be raised in that house.

Other Beliefs

Other beliefs in specific areas have been noted during the interview with respondents. In Ankileng, Sagada, people believe that dividing a forest found in one location among the heirs is not good. Thus, this forest land is inherited by either only one or all of the heirs. A member of the family or clan who provides their needs in times of crisis may be awarded the clan or family The folks believe that disposing an inherited property or forest displeases their ancestor who provided it to them. Furthermore, they believe that in cutting timber for a house, the first tree to be cut must fall to the ground unobstructed, and a ceremony known as id-idew is necessary. The respondents reported that the non-observance of these beliefs invites bad luck and may cause misfortune to timber harvesters. Id-idew entails butchering a chicken, accompanied by a prayer as follows: nanbakir et gawis tay naminpinsan/nandadawes. No waday maiyaat to si udom/tapin di agew, uray ket nakdeng di biang na." ("I went to cut a tree and it was good that it fell to the ground unobstructed. Hence I offer this chicken as an antidote to whatever unfavorable things to happen in the next days while I continue harvesting timber for my house)."

In Bila, Bauko, a belief that the *eb-eb/balaan* (springs) will dry if people violate the *tengaw/saligao* (community rest day) as part of their *begnas*. *Begnas* is a traditional ceremony done to give thanks to, at the same time to ask bountiful harvest from, *kabunian* (supreme god) and spirits. In the same place, including other barangays of Bauko and Tadian, they believe in *legleg*, a ceremony that will ask for more water from the spirits of springs or watersheds. In Sumadel and Masla, Tadian, the elders believe in the sacredness of a big stone (stone at Ga-o), thus they perform at summertime the *tungo* or ritual to offer butchered chicken mixed with *etag* or salted/smoked meat with the bathing of the stone purposely to invite the rain (Dumanghi, 2007). With such belief, the stone at Ga-o and its environs are protected/preserved.

Factors Weakening the Lakon/Saguday System of Forest Establishment and Management

Seen as the major disincentives that weaken the *lakon/saguday* system of forestation or that discourage people in general to plant and maintain trees solely by their own efforts are the *laws/rules/ordinances* on taxation and slope and elevation limits where harvesting timber is allowed, cumbersome permitting process, and cultural changes such as the diminished elders' authority over community affairs and weakened cultural beliefs meant to protect/conserve trees/forest and *bayanihan* spirit among villagers, vis-a-vis evolving self-centeredness, cash-mentality, and apathy among people.

Laws/Rules/Ordinances on Taxation

The respondents complain or are apprehensive of the taxes/charges collected if they register trees they planted, and of the higher real property tax for timber lands, and permit required, as well as forest charge collected, if they harvest their trees.

They strongly insinuate that they would rather plant short-term agricultural crops such as vegetables and root crops which will not require harvesting permit and forest charges.

The irony is that, trees take many years to attain maturity, thus the planter needs to wait for a long time before reaping economic benefits. If an owner registers his planted trees, he is required to pay tax for each, with the tax increasing as the trees grow bigger. However, at the same time, the environment is help improved by the trees being maintained. Then comes harvesting after so many years wherein the owner needs to acquire cutting and transport permits and to pay forest charges before the crop can be harvested and delivered to market. He even pays higher land-use tax year after year for the timber land as compared to what is collected from privately-owned or a "tax-declared" idle land. This could be too much for the farmer. On the other hand, on vegetables and root crops raised on the same area, harvest and product transport permits and charges are not imposed. Unlike the trees that grow and improve the environment, raising such cash crops usually entails pesticides and synthetic fertilizers that will damage the environment, and may result to significant soil erosions.

To encourage people develop their land into forest which will benefit the general public through environmental improvement, the respondents strongly suggest that they should be given tax breaks/holidays until they harvest their trees, and a non-cumbersome and expeditious permitting system should be institutionalized.

Exempting privately planted and maintained trees from taxes is expected to greatly motivate people to plant and care their own trees. To let people plant and maintain trees in their idle lands, the local government should reverse the tax rate for idle lands and forested land - that is, idle land should be imposed with higher tax than that of the forested land; and still better if forested land should be exempted from annual tax.

The laws requiring forest charges are R.A. 7161, dated 1991, DAO 19 (June 16, 1995) and DAO 2000-63. These DAO's impose P715.00/m³ forest charge for "softwood" in which the Benguet pine (*batang*) belongs. Requiring cutting and transport permits is a mandate stated in P.D. 705, Sec. 68.

In the provincial, municipal level, registered trees of at least 6" in diameter and 8' trunk length are subject to taxation, and timber land is taxed higher than that of idle lands.

Slope and Elevation Limits Allowable for Timber Harvesting

Forestry law bans logging on areas above 50% slope and 1000 m elevation above sea level. DAO No. 25, s 1992, otherwise known as the Implementing Rules and Regulations of R.A. 7586 or NIPAS Act, provides that, in developing technical description for identified virgin forests as a protected area, contiguous residual forests of good quality that is above 1000 m in elevation with slope greater than 50% are included (Sec. 3a). Furthermore, P.D. 705, Sec. 15 provides that lands 18% in slope and above are for forestry purposes; therefore, they cannot be alienated or disposed. Similarly, SP Res. 287 (Provincial Ordinance No.64), the Environment Code of Mt. Province, provides that trees planted on areas above 50% slope should be preserved.

The above provisions are disadvantageous to the people of Mt. Province because the province's topography is generally rugged, and mostly are with more than 50% slope. The available areas for tree planting in the province are mostly above 50% slope and 1000 m above sea level elevation.

With such provisions, open areas with 50% slope, or 1,000 m elevation and above in the province may not be planted to trees by the owners because they would not be allowed to harvest the trees they will plant.

Cumbersome Permit Processing

An added burden for farmers if they choose trees as their crops is the need to acquire cutting permit prior to harvesting the tree that they will raise solely at their own, and transport permit if they transport the harvested products to market or outside harvesting site where the products will be used.

Permit requirement is necessary to be able to check illegal logging. However, farmer-friendly process should be established.

Cultural Changes

Believed to have promoted forest establishment and conservation in Mountain Province are the *dap-ay* system that provides elders full authority over community affairs; cultural values like *lawa* is *inayan* and *bayanihan/ug-ugbo/ob-obbo* (helping one another); and beliefs like the existence of spirits in trees/forest/mountain/springs/rivers/rocks, and getting more than what you personally need (over exploitation) causes resource to "shy away" (*maukos/umapos*).

The weakened *dap-ay* system as seen in the diminished roles of elders in community affairs and the fading of the "kumiti" system of forest protection, and the weakened *bayanihan* spirit and cultural beliefs – these seemed being replaced by self-centeredness, cash-mentality, and apathy are seen by some respondents to be threatening the culture-based forest establishment and management system.

Self-centeredness can be demonstrated by the reported acts of some to have "tax-declared" a large portion of their community land for personal use, carelessness of many resulting to damage of trees of others, and destroying and/or stealing plants of others. Cash-mentality and apathy, are demonstrated by the use of chainsaw to process trees into lumber despite knowledge of users on the excessive waste generated by the machine, and the sale of lumber taken from communal forests. Another negative change reported by the respondents is that the young generations are generally lazier, especially in doing manual tasks – the mode by which ancestors developed and preserved their forests and environment.

Instituting policy reforms and remedial measures to counteract the negative effects of said cultural changes need to be promptly addressed to help facilitate the promotion of the *lakon/saguday* forestation system.

THE NEED TO PROMOTE LAKON/SAGUDAY SYSTEM OF FOREST CONSERVATION

The imposition of forest charges and cumbersome permit processing prior to harvesting and/or transporting of forest products that are privately-raised or maintained is an important inequity issue. Such charges and permit to harvest and transport are not imposed on agricultural crops.

Such inequity weakens the initiative of the *umili* to establish and maintain forest in their *lakons/sagudays*, including their cooperation with the DENR and the PNP/AFP for the protection of existing natural/state forest from forest fires and illegal loggers. Clearly, this inequity issue connects with the increase of forest land conversion into agricultural uses as the villagers must have seen more promise in agricultural cash crops than in taking care of their forest. Thus, there results a high deforestation rate in the country. Ignoring this scenario is calamitous, antidevelopment!

As a solution, the Cordillera Green Network calls for the promotion of the lakon/saguday system of forest establishment and management. The task entails the formulation and implementation of an expeditious, inexpensive and fair registering, updating and regulatory permitting system for privately-raised and maintained trees/forests; exempting from forest charges trees or forest products raised solely through initiatives of local people; and advertising the adoption of the lakon/saguday system to nonpractitioners through print, audio-visual (video), and other media. CGN envisions the registering and updating system to be like the processing of a bank account wherein trees planted and maintained will be registered as deposits while harvested and reported damaged will be registered as withdrawals, thus a balance is always computed and posted in the record. Automation or computerization to facilitate an expeditious permitting system for privately planted trees is the end goal. By promoting lakon/saguday forest management system, forest establishment and protection will be realized without significant cost on the part of the government, wood-based industries will regain its reputation as among the top revenue and employment provider, and environmental conditions will be improved that will consequently promote public health and productivity, agricultural sustainability and biodiversity.

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