



## “PULIS MAKAKALIKASAN: 10 MILYONG PUNO PAMANA SA KINABUKASAN”

On February 24, 2011, His Excellency President Benigno S Aquino III issued E.O. 26 to harmonize all the greening programs and initiatives of all sectors of the society under one umbrella program called the National Greening Program (NGP), which aims to plant 1.5 Billion trees covering about 1.5 million hectares of land to be reforested for a period of six years, from 2011 to 2016. All government employees including PNP members shall be individually required to plant at least a minimum of ten (10) seedlings per year for 6 years in areas determined by the Convergence Initiative.



PDG Nicanor A Bartolome has committed the PNP to support the NGP as a government priority development project thru “*Pulis Makalikasan: 10 Milyong Puno, Pamana sa Kinabukasan.*” In so doing, Police Regional Offices have been instructed to identify government land for reforestation in coordination with the Department of Environment and Natural Resources

(DENR) and LGUs. With the scheme that every PNP personnel must plant six tree seedlings every month starting February 1, 2012 to January 31, 2013, the PNP with its more or less 145,000 personnel strength will be able to plant 10 million trees nationwide for the duration of twelve months. The trees will be planted in the forestlands, mangrove and protected areas, ancestral domains, civil and military reservations, urban areas under the greening plan of the local government units, inactive and abandoned mine sites, and other suitable lands. This project, if realized, will greatly help in mitigating the adverse effects of climate change to our environment. After all, environmental protection (**Makalikasan**) is one among the core values of the PNP.

The PNP Makalikasan project aims to surpass the 10 million mark with the participation of families of PNP personnel, PNP accredited non-government organizations (NGOs), local government units (LGUs), and citizen volunteers as force multipliers. The police details in the different barangays under the “*Pulis sa Barangay*” program shall take the lead in the maintenance and sustenance of the planted trees utilizing the BPATs, NGOs, People’s Organization and other community stakeholders, in coordination with the LGUs. The LGUs will further certify actual project completion in their localities

### **SOME FOREST TREES FOUND IN THE PHILIPPINES**

1. **KAKAWATE or MADRE CACAO** – The name “*glicidia*” was derived from the Latin “*glis*” (dormouse) and *caedere* (to kill). The Spanish name “*mataraton*” refers to the tree’s rodenticidal properties. As the tree pods hang-dry in the sun, they curl and explode, making a popping cracking sound. A cluster of trees

with their pods snapping and popping and falling to the ground, in unison, make a fascinating afternoon of nature’s concoction of sound. The tree is common in the southern Tagalog areas, shedding leaves around December and flowering February and March. In some areas, the blooming of its pink flowers is so profuse to deserve a comparison with the cherry blossoms.

2. **IPIL** – is a tree reaching a height of 20-45 m and a diameter of 150-180 cm. The bark is 5-8 mm thick, gray with an orange tinge. The inner bark is light brown and mottled with brown specks. The leaves are alternate and simply compound with usually two pairs of leaflets, 8-12 cm long and 5-8.5 cm wide. The flowers are white and reddish, fragrant, and borne in panicles, 6-10 cm long. The pods, 10-25 cm long and 4-6.5 cm wide, and contain 3-6 orbicular seeds.

3. **IPIL-IPIL** - is a small tree. The leaves are compound, 15-25 cm long, with hairy rachises. There are 10-18 pairs of small leaflets along each primary branch of the main axis. The flowers, numerous, small and white, are in globular clusters (head). The pod, 12-18 cm long and 1.4-2 cm wide, is thin, flat, strap-shaped and contains 15-25 elliptic, shiny brown seeds.

4. **MAHOGANY** - Mahogany has a generally straight grain and is usually free of voids and pockets. It has a reddish-brown color, which darkens over time, and displays a reddish sheen when polished. It has excellent workability, and is very durable. Historically, the tree’s girth allowed for wide boards from traditional mahogany species. These properties make it a favorable wood for crafting cabinets and furniture.

5. **MOLAVE** - is a plant belonging to the family Verbenaceae. It is a close relative of the five-leaved chaste tree or lagundi (*Vitex negundo*). Also called molawin and tugas, it is a medium- to large-sized, drought-tolerant, hardwood tree which is indigenous to the Philippines and other Asian countries.

6. **NARRA** - Narra tree is a striking, large and strong shady tree. It is one of the most wanted wood for furniture but because there are only a few trees left, cutting down a Narra is no longer allowed. It is mostly found in Bicol, Mindanao, and the Cagayan Valley forest.

7. **NEEM** - is the common name for a tree in the mahogany family *Meliaceae*, valued for its practically limitless application to health and agriculture, as well as medicinal use of each of its parts: leaves, twigs, bark, fruit, flowers, seeds, roots. Neem’s usefulness in agriculture as an organic pest control and its ability to interrupt an insect’s lifecycle through hormonal influence, as well as the ability to kill parasites such as malaria, lice and nits.

8. **PILI** – is a promising crop of Bicol which has a great potential for development as major crop. Pili is a tree of life, with all its parts being useful. It thrives satisfactorily in marginal soil, harsh tropical climates and in low as well high elevation. It is resistant to typhoons. The tree reaches a height of about 20 to 25 meters and a diameter of about a meter or two.

9. **TALISAY** - is a large, deciduous tree, reaching a height of 20 to 25 meters, smooth or nearly so. Branches are horizontally whorled. Leaves are shiny, obovate, 10 to 25 centimeters long, tapering below to a narrow and heart-shaped base with an expanded rounded apex. Leaf stalks are short and stout. Flowers are white, small, and borne on spikes in the axils of the leaves, 6 to 18 centimeters long. Found throughout the Philippines along seashores. A common inland tree preferred for its umbrella-type shade.

10. **TEAK** - *Tectona philippinensis* - only occurs in limestone forests of Batangas province, Luzon Island and Iling Island, Mindoro, in the Philippines. It is one of three species in the genus *Tectona*, which includes the extremely valuable commercial teak *Tectona grandis*. Philippine teak is currently threatened by habitat destruction and over-exploitation for firewood and timber.

11. **KAPOK or BULAKSINA** - The kapok tree is widely spread around the world and occupies an important niche in the ecosystem of a rainforest. Emergent trees like the kapok rise above the canopy of the rainforest and provide a home for plants dependent on sunlight. Their branches provide a habitat for countless epiphytes, which provide food and shelter for many types of animals. The white, fluffy seed covering is used in pillows and mattresses. Since it is buoyant and water resistant it is often used in flotation devices and padding. The seeds, leaves, bark and resin have been used to treat dysentery, fever, asthma, and kidney disease.

12. **BANABA** – is a flowering plant that grows up to 10 meters high. It has a large green oblong leaf that is about 3-inches in width and 7 inches in length. It grows in warm climate like Philippines and India. Banaba is widely used as herbal medicine for diabetes. It is also rich in vitamins and minerals including zinc in dietary fibers.

13. **ACACIA or RAIN TREE** - Acacia is a large umbraculiform tree growing to a height of 20 to 25 meters. Bark is rough and furrowed. Branches are widespread. Erosion control, land reclamation and soil improvement. The wood is used for pulp, fuel wood and has limited use for construction, implements and furniture. In its native habitat a colonizer of tropical coastal lowlands and found along streams, in open forests, savannas and adjacent to mangroves, often in sandy soils. Very tolerant to different soil conditions and water supply.

14. **ALAGAW** - is a small hairy tree, grows up to 3 to 8 meters high. Leaves are ovate to broadly ovate, 10 to 20 centimeters long, with broad, rounded, or somewhat heart-shaped base, and pointed tips. Fruit is fleshy, dark purple, rounded, about 5 millimeters in diameter. Common in thickets and secondary forests at low altitudes from the Batan Islands and northern Luzon to Mindanao, in most islands and provinces.

15. **FIRE TREE or AFRICAN TULIP** - The fire tree may show bits of green from its flaming red foliage, but in general, it has an intense blazing red effect. The clusters of flame-red flowers measure 4 to 5 inches across. The fire tree can grow up to 40 feet tall. Its wide-spreading, umbrella-like canopy can be wider than its height. The fire tree (*Delix regia*) is the most widely-seen along the streets of Manila. It is similar to a large oak tree, riddled with red blossoms that grow in thick clusters with fire-like carnation color. Rarely does the tree have leaves when it is in full bloom.

16. **MALUNGAY** – is a small tree growing as high as 9 meters, with a soft white wood, corky and gummy bark. It can be planted throughout the Philippines in settled areas at low and medium altitudes. A common backyard vegetable and a border plant.



# LIST OF SOME FRUIT BEARING TREES IN THE PHILIPPINES

COMMON NAME	DESCRIPTION / USES
<b>Anonas</b>	Leaves are oblong to oblong-lance late, flowers are greenish yellow, fragrant, and the fruit is large and heart-shaped and brownish yellow. Fresh leaves are used as topical and are applied to the stomachs of children suffering from indigestion.
<b>Avocado</b>	Medium sized tree reaching a height of 10 meters. Leaves are alternate, oblong to oval or obovate. Flowers are small borne in naked, paniced, hairy cymes. Fruit is large, fleshy, elongated and of various shapes. The pulp is credited with the suppuration of wounds, and has aphrodisiac properties.
<b>Balimbing</b>	Small sized tree growing to a height of 6 meters or less. The leaves are pinnate about 15 cm. long. The fruit is fleshy, acid green or greenish yellow and edible. The fruit is laxative, and is also given in fevers.
<b>Bayabas</b>	The plant is somewhat hairy reaches a height of 8 inches. Ripe fruit is eaten as vegetable and used as seasoning for "Sinigang" and also used in the manufacture of jellies. Leaves in the form of decoction for washing ulcers and wounds and also anti-diarrhetic.
<b>Bignai</b>	Small, smooth and dioecious tree. The fruit is fleshy, red, acid, and edible. Excellent in making jam and wine.
<b>Bitongol</b>	An erect tree reaching a height of 20 meters. Fruit is round, edible, and is good for making jams and pies. The roots and their decoction are given internally to women after childbirth. The fruit is prescribed for dysmenorrhoea
<b>Cacao</b>	Cultivated for its seeds which are used in the manufacture of cacao, chocolate, cacao butter. Cacao butter is used in the manufacture of confections, toilet preparations and cosmetic ointments or coating pills and preparing suppositories.

COMMON NAME	DESCRIPTION / USES
<b>Caimito</b>	Cultivated for its edible fruit and as an ornament. Decoction of the bark is given for dysentery, latex is used as a resolutive in abscesses and fruit is used in treatment of diabetes mellitus.
<b>Chico</b>	Much branched tree reaching a height of 8 meters. The fruit brown, fleshy, ovoid or somewhat rounded. The flesh is brown, soft, slightly gritty and sweet. Bark is used for tanning sails and for making fishing tackle. Milky juice of the bark is used in the manufacture of chewing gum.
<b>Duhat</b>	Duhat juice is considered as tasty as grape juice, and used in the manufacture of red wine. Decoction of the bark is given internally in dysentery; ripe fruit is an efficient remedy for diabetes mellitus.
<b>Durian</b>	Cultivated for its very highly prized fruits. Durian fruit as tonic, root decoction for fever and their juice into a preparation for bathing the head of the fever patient.
<b>Rambutan</b>	Fruit is oblong, red or yellow with thick coarse wavy hairs or soft spines. Roots in decoction for treating fevers, leaves for poulticing and the bark as an astringent for diseases of the tongue.
<b>Rimas (Breadfruit)</b>	Breadfruit is a tropical type of tree which looks similar to jackfruit but without that sharp spikes and it does not grow bigger like that.
<b>Guyabano</b>	Small tree, 5 to 7 meters in height. The fruit usually eaten raw when ripe Juicy fruit makes a delicious ice cream. Unripe fruit, seeds and juice of the fruit are used in treating dysentery.
<b>Suha</b>	Leaves, flowers, fruit, peel of the fruits and the volatile oil are official in many pharmacopeias.
<b>Katmon</b>	Acid juice of the fruit when mixed with sugar is used as cough cure. It is employed for cleansing the hair.

COMMON NAME	DESCRIPTION / USES
<b>Mansanita</b>	A decoction of the bark & leaves is employed as an effective astringent in dysentery & diarrhea & is used in bowel trouble of all kinds.
<b>Marang</b>	The fruit is round, about 8 millimeters or less in diameter. The seeds contain slightly aromatic, tallow like oil. Roots and leaves are used for poulticing sprains and bruises. Seeds are pounded and applied to boils.
<b>Nangka</b>	The young fruits are eaten as vegetable. Ash of the leaves after burning applied on wounds and ulcers as a dried or cicatrizant. Leaves for skin diseases root decoction for diarrhea, milky juice for swelling and snake bite.
<b>Niog (Coconut Palm)</b>	It is called "The Tree of Life" because of the endless list of products and by-products derived from its various parts. Food, shelter, fuel – name the coconut has it.
<b>Paho</b>	Roots are diuretic, bark and seeds are astringent
<b>Sampalok (Tamarind)</b>	The tree is cultivated for its many uses. Leaves are used in dyeing. Tamarind pulp obtained citric acid, 9.40, tartaric acid 1.55, malic acid 0.45, bitartrate of potash 3.25, sugar 12.5, gum 4.7 vegetable jelly 6.25, parenchyma 34.35, and water 27.55.
<b>Kamachile</b>	This tree is 5 to 18 meters high with ultimate branches. The bark is used for tanning; the seed is edible, whitish and sweet when the fruit is ripe. The root bark is good for dysentery, leaves with salt, cure indigestion and also produces abortion.
<b>Kamias</b>	Fruit contains potassium oxalate & is used to remove stains from clothing and also for washing hands. It is much used as seasoning and is made into sweets, including jam and used in making pickles.
<b>Libas</b>	Leaves & fruits sour & used in stews



Anonas



Avocado



Balimbing



Bayabas



Caimito



Chico



Duhat



Durian



Rimas



Bignai



Bitongol



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Rambutan



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Libas