

# LOCATION AND ASSESSMENT OF PLUS TREES OF SOME DIPTEROCARP AND PREMIUM INDIGENOUS TREE SPECIES IN ILOCOS NORTE

Dipterocarps and premium indigenous timber species are the most valued tree species in the Philippines both environmentally and economically. Conservation and judicious management of these species are needed to ensure that goods and services derived from them are sustained.

Reforestation activities, such as the National Greening Program, advocates the use of indigenous timber species. But the success of any reforestation and/or forest restoration program partly depends on the supply of good quality planting stocks. The location and assessment of phenotypically superior mother trees is of great importance to develop a collection protocol and ensure the use and production of high quality planting materials from a wide species base.

Thus, a study was conducted to document the location of plus trees of dipterocarps and other premium indigenous timber species, characterize and assess the phenotypic quality, and develop data base and maps on the distribution of these plus trees in Ilocos Norte.

## METHODOLOGY

### Locating Plus Trees

■ Potential plus trees were located in secondary growth forests and forest plantations in Ilocos Norte



■ Information on the location of plus trees was obtained from literature and key informants:  
 > DENR personnel  
 > Community/ PO members

■ Coordinated with the LGU officials (mayor and MENRO)

### Assessment of Plus Trees

■ Potential plus trees were characterized and rated using the protocol of Zabala (1994).

CRITERION	PARAMETER	POINTS
Stem growth	-Total height	25
	-Diameter at breast height	15
	-Apical dominance	10
Stem/bole form	-Straightness/ circularity of stem	30
	-Forking	-1 per fork
Health	Tree health	10
Branching characteristics	-Branch angle	15
	-Branch thickness/ diameter	15
<b>Total Points</b>		<b>120</b>

### Geo-tagging and Marking

■ Geographic location of the selected plus trees was determined using a GPS receiver

■ Coordinates were used in mapping the exact location of the identified plus trees for each species



■ Plus trees were marked for easier access during collection of planting stocks

## RESULTS

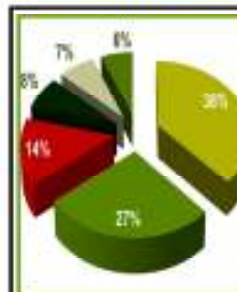
### Number and Species of Identified Plus Trees

✓ 237 potential plus trees belonging to 13 species and 5 families were selected

✓ Seven species belong to the Dipterocarpaceae family: Apitong (*Dipterocarpus grandiflorus*), Guijo (*Shorea guiso*), Palosapis (*Anisoptera thurifera*), Red Lauan (*Shorea negrosensis*), White lauan (*Shorea contorta*), Tanguile (*Shorea polysperma*), Yakal saplungan (*Hopea plagata*).

✓ The other six are premium species: NARRA (*Pterocarpus indicus*), Molave (*Vitex parviflora*), Dao (*Dracontomelon dao*), Ipil (*Intsia bijuga*), Supa (*Sindora supa*), and kamagong (*Diospyrus blancoi*)

### Location, Distribution and Sample Data Base and Map



■ Nueva Era  
 ■ Batac  
 ■ Pagudpud  
 ■ Dingras  
 ■ Piddig  
 ■ Pasuquin

■ Maps/shape files were developed using GIS



### Top Five Species Identified



## CONCLUSION/RECOMMENDATIONS

- The secondary forests of Ilocos Norte still had a modest number of plus trees that can be used as sources of quality planting materials to support reforestation activities in the province.
- It is recommended that: a) these plus trees must be monitored and protected from destructive agents; b) progeny testing must be initiated to assess the genetic potential; and c) establishment of clonal hedge garden.