CHAPTER 1

ADVANTAGES OF TREE PLANTING
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1. AS A PLANTATION

We plant trees in plantations for various reasons, including maintaining water sources, upgrading soil quality, improving climate, supplying construction timber and wood energy, providing shelter for livestock, and furthermore, for social advantages, cultural and traditional conservation and for beautifying the landscape.

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2. AS FENCING AROUND THE HOMESTEAD AND FIELDS

Tree planting along the boundary of large fields and the homestead is useful for strong live fences, windbreaks, wood energy and other complementary products such as fodder. Popular tree species include *Leucaena leuccephala*, *Pithecellobium dulce*, *Sesbania bispinosa*, *Casuarina equisetifolia*, *Acacia*, *Hura crepitans*, *Azadirachta indica*, *Eucalyptus camadulensis*, and other types of trees for construction.

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Planting trees along the road provides various advantages such as shade, beautification of the landscape, a good and clean climate, prevention of soil erosion, drainage, prevention of dust from flying onto people houses, and providing wood for various uses. Appropriate species include *Delonix regia*, *Casuarina equisetifolia*, *Albizia saman*, *Bauhinia variegata*, *Swietenia macrophylla*, *Hopea odorata*, *Peltophorom dasyrrhachis*, *Peltophorom plerocarpum*, *Cassia fistula*, *Lagerstroemia floribunda*, *Eucalyptus camadulensis*, *Cassia siamea*, *Dipterocarpus alatus*, and *Acacia auriculiformis*. 
Planting trees in public places, such as hospitals, schools, pagodas and public gardens provides particular advantages such as shade and beauty, which is very beneficial to all people. Tree species that should be planted include *Hopea odorata*, *Dipterocarpus alatus*, *Delonix regia*, *Albizia saman*, *Cassia siamea*, *Cassia fistula*, *Casuarina equisetifolia*, *Afzelia xylocarpa* and *Pterocarpus macrocarpus*. 
5. TO PREVENT EROSION

Forest cover can help prevent erosion, and the roots of trees growing along waterways are useful for holding and preventing the banks from collapsing. Waterways with no trees or plants growing on their banks suffer from high levels of soil erosion, which in the long run will widely deplete the cultivable and residential land. Therefore, there should be urgent measures for tree planting to protect the area from soil erosion. Species that should be planted for this purpose include *Barringtonia asiatica*, *Pithecellobium dulce*, *Bambusa spp.*, *Psidium guajava*, *Nauclea orientalis*, *Acacia*, *Eucaliptus camadulensis*, *Crataeva andansonii*, *Ficus spp.*, and vines (*khtum*)

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6. FOR ANIMAL FODDER

This increases the amount of fodder for raising animals. Fodder trees are fast growing on all types of land, they tolerate arid soil, are easy to plant, and highly productive. More significantly, planted fodder trees can be advantageous for fencing and beautifying the homestead. Species include *Leucaena leucocephala*, *Moringa oleifera*, *Hura crepitans*, and *Sesbania bispinosa*. Importantly, farmers shall select easily acquired and locally available tree species, which are the favorite fodder for animals.
7. AS PART OF AGRO-FORESTRY SYSTEMS

Tree planting within agro-forestry systems is the integrated planting of trees and agricultural crops, which aims to gain a continual harvest with many purposes, such as the creation of appropriate conditions for crops through the initial control of grass, the provision of shade for crops or medicinal plants, improvement of soil fertility or prevention of soil erosion. Gradually, farmers can harvest these crops and eventually they can harvest forest products. Sometimes, farmers can also harvest and collect products from the planted trees for fodder, firewood or other non-timber forest products. Popular tree species for agro-forestry systems include Leucaena leuccephala, Sesbania bispinosa, and Moringa oleifera.

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8. AS BARRIERS AGAINST STORMS AND FLOODS

Strong winds, storms and floods more often devastate open areas than forests. Storms or floods do not only destroy infrastructure and houses but they also destroy agricultural products. The most successful approach for prevention is to plant trees as barriers. Species that are appropriate for this situation include *Casuarina equisetifolia*, *Eucalyptus camadulensis*, *Acacia*, *Rhodomyrtus tomentosa*, *Delonix regia*, *Bambusa spp*, and *Albizia lebbeck*.

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