

Annex 4

Annex to Chapter Four

Multipurpose Bee Plants of Different Climatic Regimes of the HKH for Plantation on Common Property Land and Roadside

Species	Uses	Remarks
A. Temperate region comprising mostly of high mountain area		
<i>Eucalyptus saligna</i> (Sydney Blue Gum Tree)	Timber, fuel	Medium-sized trees - Can be grown by entire transplanting as well as by direct sowing - Can be planted on gentle slopy roadsides
<i>Juglans regia</i> (Walnut, Akhrot)	Timber, furniture, and carving, gun-stock, fruits	Large tree - Grown by entire Transplanting and also by direct sowing
<i>Morus serrata</i> (Mulberry, Kimu)	Fodder, sports goods, toys	Large tree - Suitable for furniture, growing on marginal slopy lands and on roadsides passing through farmlands - Can be grown by branch cuttings and direct sowing.
<i>Prunus cerasoides</i> (Wild Cherry, Padam)	Timber, fuel, fodder, wood used in religious ceremonies	Medium tree - Suitable for Marginal lands and around villages - Grown by entire transplanting, also by branch cuttings.

Species	Uses	Remarks
<i>Prunus persica</i> (Peach, Aru)	Fruits, timber, fuel	Small tree - Suitable for near habitations, gentle stable slopes and plain valley areas - Grown by entire transplanting.
<i>Pyrus malus</i> (Apple)	Fruits	Small trees - Suitable for growing near habitations, farming areas in valleys and marginal lands - Grown by entire transplanting
<i>Prunus armeniaca</i> (Apricot)	Fruits, oil from seeds, timber, fuel	Small tree - suitable near habitations, farmlands- grown by branch cuttings.
<i>Robinia pseudoacacia</i> (Black Locust)	Fuel, fodder, soil conservation	Medium tree - Suitable for marginal lands and for stabilising marginal land - Grown by entire transplanting - Commonly planted on roadsides in lower hills - Can be planted on slopes of any degree.

B. Sub-tropical region comprising the foothills of the western Himalayan and central Himalayan mountains

<i>Albizia lebbek</i> (Siris)	Timber, fuel, fodder, medicinal	Large trees - Suitable for open roadside lands and along narrow pathways - Grown by entire transplanting, direct sowing, and cuttings.
<i>Bauhinia purpurea</i> (Geranium Tree)	Gum, fuel, fodder	Medium tree - Suitable for roads passing through farms - Grown by entire transplanting and direct sowing.
<i>Bauhinia variegata</i> (Kachnar)	Gum, fuel, fodder	Medium tree - Suitable for roads passing through farms - Grown by entire transplanting and direct sowing.
<i>Dalbergia sissoo</i> (Shisham)	Timber, furniture, plywood fuel, fodder	Large or medium tree - Suitable for growing in lower to mid-hill plantations, on village roads.

Species	Uses	Remarks
		Grown by entire transplanting, root and shoot - Suitable on slopy sites.
<i>Emblica officinalis</i> (Emblica, Amla)	Fruits, tannin, timber fuel, fodder	Medium tree - Suitable for roadsides near homesteads and farms - Grown by entire transplanting or direct sowing. Himachal Pradesh is already using it for roadside plantations for its socioeconomic value.
<i>Eucalyptus camaldulensis</i> (River Red Gum)	Timber, fuel, charcoal, gum, medicinal	Large tree - Suitable for both dry and swampy areas - Grown by entire transplanting.
<i>Grevillea robusta</i> (Silky Oak)	Ornamental, timber, cabinet making, toys, fuel, panelling, shade tree in tea gardens	Large tree - Suitable for shade or as an avenue tree - Grown by direct sowing.
<i>Grewia optiva</i> (Bhimal)	Timber, cot frames, fibre, fodder	Medium tree - Suitable for farming areas - Good for fodder, fibre, and fuel - Grown by entire transplanting.
<i>Morus alba</i> (Mulberry, Tut)	Fruits edible, timber, sports goods, fodder, leaves for silkworm feeding	Medium tree - Suitable for fodder on marginal lands - Grown by entire transplanting, direct sowing or branch cuttings.
<i>Prunus armeniaca</i> (Apricot, Zardalu)	Fruits, timber, fuel	Small tree near habitations, farmlands, roadsides - Grown by branch cuttings
<i>Prunus persica</i> (Peach, Aru)	Fruits, timber, fuel	In valleys and on stable land near habitation, roadsides.
<i>Pyrus communis</i> (Pear, Nashpati)	Fruits, fuel	Small tree - Suitable for homesteads and field edges - Grown by grafting.

Species	Uses	Remarks
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C. Sub-tropical climate of central and eastern Himalayas

<i>Albizia lebbek</i> (Siris)	Timber, fuel, fodder, medicinal	Large trees - Suitable for open roadside lands and along narrow pathways - Grown by entire transplanting, direct sowing, and cuttings.
<i>Bauhinia purpurea</i> (Geranium Tree)	Timber, fuel, fodder	Large tree - Suitable for growing on village commons, marginal lands, and roadsides - Grown by entire transplanting and direct sowing - Good for areas requiring fuel and fodder.
<i>Grevillea robusta</i> (Silky Oak)	Essential oils, fuel, charcoal, timber	Medium tree - Suitable for slopy and plain roadsides - Grown by entire transplanting.
<i>Grewia elastica</i> (Dhaman)	Ornamental, timber, toy-making, fuel, fodder	Medium tree - Suitable for slopy and plain roadsides - Grown by entire transplanting.
<i>Morus serrata</i> (Mulberry, Kimu)	Fodder, sports' goods, furniture, toys, fodder, leaves fed to silk worms	Large tree - Suitable for growing on marginal slopy lands and on roadsides passing through farmlands - Can be grown by branch cuttings and direct sowing.

D. Tropical Region

(i) High rainfall areas of Nepal and northeastern parts of India

<i>Dalbergia latifolia</i> (Rosewood)	Timber, furniture, cabinets	Large tree - Suitable for growing on village, state, and national highways - Grown by entire transplanting.
<i>Lagerstroemia speciosa</i> (Jarul)	Timber, constructional purposes, furniture, agricultural implements, tele-graph poles, fodder, medicinal	Large tree - Suitable along pathways, grown by entire transplanting.

Species	Uses	Remarks
<i>Mangifera indica</i> (Mango)	Edible fruits, fatty oil, plywood, shoe heels, furniture, fuel	Large tree - Suitable for growing on roadsides of all kinds of roads - More preferable for village roads - Good only for valleys and stable areas - Grown by entire transplanting (grafted).
<i>Parkia roxburghii</i> (Supota)	Fruits, fuel, ornamental, medicinal	Medium tree of eastern parts - Suitable for roadsides - Grown by entire transplanting.
<i>(ii) Medium rainfall areas of low to mid-hills</i>		
<i>Acacia auriculiformis</i> (Akashmuni)	Timber, fuel, ornamental	Medium trees - Suitable for slopy lands - Grown by entire transplanting and direct sowing.
<i>Acacia nilotica</i> (Babul, Kikar)	Timber, fuel, fodder, tannin, gum	Medium tree - Suitable for slopy lands, marginal lands and village commons - Grown by direct sowing.
<i>Aegle marmelos</i> (Bel Tree, Vilva)	Fuel, gum, bark and fruit, medicinal	Small tree - Suitable for roadsides near rural habitations and houses - Grown by entire transplanting.

E. Trans Himalayan, high mountain cold arid zone

<i>Salix</i> spp (Willow Tree)	Fuel, baskets and building	A popular tree of the trans-Himalayas.
<i>Prunus armeniaca</i> (Apricot, Khurmani)	Fruits, timber, fuel	Small tree near habitation, farmland, roadsides - Grown by branch cuttings - A popular oil seed and fruit tree, wild as well as domesticated.
<i>Hippophae</i> spp (Seabuckthorn)	Fruits, fuel, timber, nitrogen fixation, soil fertilization	Shrub and tree both suitable for dry sandy or rocky locations, riverside, moist areas - Good for roadsides passing through farm lands.
<i>Prunus persica</i>	Fruits, fuel	Wild forms for roadside plantations.