

## **GREEN BELT DEVELOPMENT PROGRAMME**

Tree plantation is one of the effective remedial measures to control the air pollution and noise pollution. It also causes aesthetics improvement of the area as well as sustains and supports the biosphere.

The unit has done extensive plantation in 1500 m<sup>2</sup> in its existing unit and an area of about 6900 m<sup>2</sup> will be added for greenbelt development. After expansion, total area of greenbelt area will be 8400 m<sup>2</sup> which will be 33% of total land area.

### **Design of Green Belt**

As far as possible, following guidelines will be considered in greenbelt development.

- The spacing between the trees will be maintained as per SPCB guideline i.e. 1 tree/4 sqm.
- Spaces, so that the trees may grow vertically and slightly increase the effective height of the greenbelt.
- Planting of trees in each row will be in staggered orientation.
- The short trees (< 10 m height) will be planted in the first two rows (towards plant side) of the green belt. The tall trees (> 10 m height) will be planted in the outer three rows (away from plant side).

### **Planting methodology**

The plantation shall be done in pits. The pit shall be refilled with soil after the planting. The sampling of healthy, nursery raised, seedlings in polythene containers shall be transported in baskets. Planting shall be done after first monsoon showers. The level of soil is about 10 cm above of ground level. The soil around the plant shall be pressed to form a low through. About 25 gm chemical fertilizers shall be added. Watering shall be continued after plantation if any dry spells follows. Planted area shall be inspected and mortality rate ensured for each species. The dead and drying plant shall be replaced by fresh seedlings.

## **Selection of species for greenbelt**

For the development of greenbelt, plants having simple big leaves and native species are preferred to the plants. The plants are suitable for greenbelt development based on gaseous exchange capacity of foliage which is ascertained by the following characteristics:

- The plant should be fast growing.
- It should have thick canopy cover.
- It should be perennial and evergreen.
- It should have large leaf area index.
- It should be indigenous.
- It should be efficient in absorbing pollutants without significant effects on plant growth.

The objectives of the industrial greenbelt are to improve the micro-environment. The success depends on the type of land available and selection of suitable tree species for pollution control. Selection of tree species for industrial areas is influenced by the nature of industry. The objective should be to ensure a green cover tolerating pollutant gases and solid particulates present in the atmosphere. It is also advisable to select suitable tree species and adopt simple techniques which require minimum investment and care.

## **Plantation Programme**

Plantation of trees in and around the company are meant mainly to reduce air pollution caused by factory emissions, to absorb sound, to prevent soil erosion and to maintain aesthetic value for healthy living.

## **Floral species recommended for greenbelt**

Following list of trees are suggested for the greenbelt development with respect to this particular area. They are mostly deciduous and evergreen tree types suitable to be grown in the area.

| <b>Botanical Name</b> | <b>Common Name</b> |
|-----------------------|--------------------|
| Mangifera indica L.   | Mango, Aambo, Keri |

|                                   |                |
|-----------------------------------|----------------|
| Annonasquamosa                    | Sitaphal       |
| Polyalthialongifolia (Sonn.) Thw. | Asopalav       |
| Nerium oleander L.                | Lal Karen      |
| Cassia fistula                    | Garmalo        |
| Delonixregia                      | Gulmohar       |
| Lawsoniainermis L.                | Hennah, Mehndi |
| Azadirachtaindica                 | Limbdo         |
| Acacia Nilotica                   | DesiBaval      |
| Acacia senegal (L.) Wild          | GoradiyoBaval  |

### **Survival rate of trees and post plantation care**

Considering the availability of water and general survey of surrounding area, the survival rate is expected to be around 70-75%. Moreover, the wire net guards will be provided to protect the saplings. The same will be properly manure and watered so that it can grow well.

### **Budgetary Expenditure:**

Unit has already developed greenbelt in and around of our plant premises. Unit will dense the greenbelt at demarcated greenbelt area in plant premises.

### **Protection of plantation site:**

- Protection from grazing will be done by erecting tree guards a rounded planted sapling.
- Though the tree suggested for plantation will require very less water, however during the first year watering will be done twice in a day. There after watering will be done twice in a week.
- The ETP sludge and treated water content high nutrient value including nitrogen & phosphorus, so watering the plant can take up the plant easily. No other manuring is required.
- Damaged plants will be replaced with new plants.