

GREEN BELT DEVELOPMENT

The greenbelt shall be developed simultaneously with the plant construction. This will further mitigate the pollution impacts. **10 to 20 m** wide greenbelt will be developed all around the plant as per CPCB guidelines in consultation with local DFO.

Greenbelt plantation

Greenbelt will be developed in a set of rows of trees planted in such a way that they form an effective barrier between the plant and the surroundings. The main purpose of greenbelt development is to contribute to the following factors.

- To maintain the ecological homeostatus.
- To attenuate the air emissions from the kiln and the fugitive dust emissions.
- To prevent the soil erosion.
- To attenuate the noise levels.

Plantation of grass, flowers, bushes and trees will be taken up to reduce the generation of dust from the bare earth and to enhance the aesthetic value.

Plantation species

Plantation species will be considered based on the following.

- Suitable to the Geo-climatic conditions of the area.
- Mix of round, spreading, oblong and conical canopies.
- Evergreen trees.
- Different heights ranging from 4m to 20m.

Plantation for arresting dust

Trees particularly having compact branching closely arranged leaves of simple elliptical and hairy structure, shiny or waxy leaves and hairy twigs are efficient filters of dust. The following species are suggested to arrest the dust

- *Alstonia Scholaris*
- *Bauhinia purpurea*
- *Cassia siamea*
- *Peltoferrum ferrugineum*
- *Butea monosperma*
- *Tamarindus indica*
- *Azadirachta indica*

Plantation to absorb SO₂ emissions

The following plants are suggested for plantation to absorb SO₂ in the air.

- *Azadirachta indica*
- *Albizia lebbeck*
- *Alstonia scholaris*
- *Lagerstroemia flosregineae*
- *Melia azedarach*
- *Minusops elangi*
- *Poloyalthia longifloia*

Plantation to reduce noise pollution

Trees having thick and flushy leaves with petioles are suitable. Heavier branches and trunks of trees also deflect the sound waves. The following plant species are suggested to reduce noise pollution.

- *Alstonia scholaris*
- *Azadirachta indica*
- *Melia monosperma*
- *Grevillea peridifolia*
- *Tamarindus indica*
- *Greavillea robusta*

Plantation along the roads (Avenue plantation)

- *Alstonia scholaris*
- *Cassia fistula*
- *Bauhinia purpurea*
- *Mimusops elangi*
- *Pongamia pinnata*
- *Polyalthia longifolia*
- *Poluferrum ferrugineum*
- *Lagerstroemia flosreginea*
- *Cassia siamea*

- Local DFO will be consulted in developing the green belt.
- Greenbelt of **8.2 acres** is being developed in the plant premises. **10 to 20 m** wide greenbelt will be developed all around the plant.
- The tree species to be selected for the plantation are pollutant tolerant, fast growing, wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants.
- Greenbelt will be developed as per CPCB guidelines.
- 600 plants will be planted per acre as per CPCB norms.