

1. Greenbelt & Plantation Development Programme

The company has social obligation to recreate the environmental status by providing thick canopy cover to suppress fugitive emission and provide aesthetic beauty. Trees form important part of the biosphere in the ecosystem. The ecological belt maintains the natural balance of the area.

A greenbelt of tree plantation around the plant site will help to arrest the particulate matter in the area and hence attenuate the pollution to a great extent.

The following characteristics have been taken into consideration while selecting plant species for green belt development and tree plantation.

I. They should be fast growing and tall trees.

II. They should be perennial, evergreen & indigenous.

III. They should have thick canopy cover.

IV. The planting should be in appropriate alternate rows around the site to prevent lateral pollution dispersion.

V. The trees should maintain regional ecological balance and conform to soil and hydrological conditions. Indigenous species should be preferred.

VI. They should be resistant to SPM Pollution.

VII. Heterogeneous tree species have been selected and planted considering soil and climate adaptability, flowering & growth characteristics, canopy structures & resistance to pollution load.

1.1 Greenbelt and Plantation at Plant Site

Due care is being/will be taken to ensure that a greenbelt is developed around the plant area. Areas having low density vegetation will be systematically and scientifically afforested. The plantation scheme broadly covers the following areas:

□ Greenbelt formation in and around the plant site

Apart from the greenbelt and aesthetic plantations for fugitive emissions and noise control, all other massive plantation efforts will be executed with the assistance and co-operation of the local community. The plantations of any of the above or their combinations will be decided in consultation with the local community and District Forest Department.

1.2 Details of Greenbelt

The company has already raised the greenbelt and it will dense the greenbelt around the periphery of plant premises in near future. Native plant species have been planted in consultation with local DFO. Plant species and shrubs recommended for reduction for noise level is given in the table 1 & 2:

Table 1: Plant Species Recommended For Reduction of Noise Level

S.No.	Binomial Name	Common Name	Hindi Name	Approx. average
1	<i>Acacia dealbata</i> Link	Silver Wattle		15m
2	<i>Acacia nilotica</i> (Linn)	Indian Gum-	Babul	8m
3	<i>Albiziamoluccana</i> Mig	White popinae	Subabul,Vilaitibaral	15m
4	<i>Albizia odoratissima</i>	Black Siris	Kala Siris	18m
5	<i>Alstonia scholaris</i> (linn.)R.	Devil tree	Chattiyar	15m
6	<i>Anonaswuamosa</i> Linn.	Custard apple	Seetaphal	10m
7	<i>Anonareticulata</i> Linn.	Bullock's Heart	Luvuni,nona	10m
8	<i>Azadirachta indica</i> A.	Indian Lilac	Nim	20m
9	<i>Balanites roxburghiji</i>	Desert-date	Hingan	9m
10	<i>Barringtoniaacutangula</i>	Indian Oak	Hijal	9-12m
11	<i>Cassia pumila</i> Lamk	Yellow Cassia		10-12m
12	<i>Cassia siamea</i> Lamk	Iron wood tree	Minjri (Beng.)	10-12m
13	<i>Casuarinaequisetifolia</i>	Australian or	Janglisaru	10m
14	<i>Derris indica</i> (Lam.)	Pongam-Oil Tree,	Karanja	10m
15	<i>Eucalyptus hybrid</i>	Mysore gum		20m
16	<i>Ficusbenghalensis</i> Linn	Banyan Tree	Bargad	20m
17	<i>Ficusbenjamina</i> Linn		Pakur	12m
18	<i>Ficuselastica</i> roxb	Indian Rubber		12m
19	<i>Ficusreligiosa</i> Linn	Peepal Tree	Pipal	20m
20	<i>Ficusvirens</i> Ait	Pilkhan		10m
21	<i>Grevillearobusta</i> A. Cunn.	Silvery or Silky		20m
22	<i>Guazmaulmifolia</i> Lamk		Rudraki	10m
23	<i>Heterophragmaroxburghiji</i>			18m
24	<i>Kigeliaafricana</i> Lamk	Sausage tree		10m
25	<i>Lagerstroemia</i>	Queen crape	Jarool	10m
26	<i>ManagiferaIndica</i> Linn	The mango tree	Am	15m
27	<i>Milletiapeguensis</i> Ali			10m
28	<i>Millingtoniahortensis</i> L.F	Indian cork-	Buch	10m
29	<i>Mimusopshexandra</i> Roxb.		Khirmi	10m
30	<i>Morus alba</i> Linn.	Tuti	Tut	
31	<i>Peltophorumpterocarpum</i> (Copper pod tree.		
32	<i>Pithecellobiumducle</i> (Roxb.	Manila	Vilayatimili	8m
33	<i>Prosopischilensis</i> (Molina)	Mesquite	Vilayatikik kar	10m
34	<i>Prosopis cineraria</i> Linn		Khejri	12m
35	<i>Samaneasaman</i> Jacq	Rain Tree		20m
36	<i>Sapindusemarginatus</i>	Soapnut		10m
37	<i>Saracaasoka</i> Roxb.De		Ashok	5m
38	<i>Sesbaniagrandiflora</i> Pers	Swamp-	Ogosti(Ori ya)	10m
39	<i>SesbaniaSesban</i> (Linn)Mer	Common Sesban	Jainti	6m
40	<i>Spathaodeacampanulata</i>	Indian Tulip		12m
41	<i>Spondiaspinnata</i> (L.f)		Bemg& Mar-	10m
42	<i>Syzygiumcumini</i> Linn	Black plum	Jaman	20m

43	<i>Tamarindus Indica</i> Linn	The Tamarind	Imli	20m
44	<i>Thespesia populeneoides</i> (Roxb) Kostel	Umbrella Tree	Parespial	10m
45	<i>Thuja occidentalis</i> Linn.	American	White cedar	15m

Table 2: Proposed Shrubs species

S.N	Binomial Name	Common Name	Hindi Name	Height
1.	<i>Acacia catechu, Willd</i>	The cutch tree	khair	3m
2.	<i>Acacia pennata Willd</i>		Biswal	3m
3.	<i>Bougainvillea speetabilis Willd</i>	Bougainvilla		8m
4.	<i>Calotropis qiantea R.Br(Linn)</i>	Gigantic swallow wort		5m
5.	<i>Calotropis procera (R. Br.) Ait</i>	Swallowwort	Akada	
6.	<i>Carissa spinarum</i>		Karaunda	3m
7.	<i>Grewia subninae aulisa DC</i>		Phalsa	7m
8.	<i>Hamelia patens Jacq</i>	Scarlet bush		3m
9.	<i>Ixorachinensis</i>			6m
10.	<i>Lantana camara Linn</i>	Lantana		3m
11.	<i>Lawsonia inermis Linn</i>	Henna	Mehendi	5m
12.	<i>Murrapaniculata Linn</i>		Marchula	5m
13.	<i>Nerium indicum Mill</i>	Pink oleandar	Kaner	5m
14.	<i>Poinciana pulcherrima Linn (R. Grab)</i>		Guletura	3m
15.	<i>Ricinus communis Linn</i>	The castor	Erandi	6m
16.	<i>Sesbania speciosa Taub.</i>	Seemaigathi		4m
17.	<i>Tabernaemontana divaricata Linn</i>		Tager	4m
18.	<i>Tecoma Stans Linn</i>			5m
19.	<i>Thevetia peruviana (Pers) Merri</i>	Yellow oleanner	Pila Kaner	6m
20.	<i>Zizyphus rugosa Lamk</i>		Suran	5m
21.	<i>Citrus aurantium Linn</i>		Limbu	5m
22.	<i>Zizyphus xylopyra Wild</i>		Goteoboro (Oriya)	
23.	<i>Gardenia tasminoides Eills</i>			5m
24.	<i>Hibiscus rosa-sinensis Linn</i>	Jasud	Jasum	3m
25.	<i>Ixora coccinea L</i>		Rangan	6m
26.	<i>Psidium guajava Linn.</i>	Guava tree	Amrud	5m

1.3 Plantation along Road Sides

Automobiles are the source of pollution of gaseous and particulate pollutants. Component of green belt on road side hence should be with both absorbers of gases as well as of dust particles. The choice of plants for road side should include shrubs of height 1 to 1.5 meter and trees of 3-5 meter height. Medium sized trees, alternating with shrubs are ideal for sorption of particulates and gases, as the company is doing the same in existing plant. The budgetary plan is given in the table-3.

Table-3 Budgetary Outlets of Greenbelt Development for Five Years

Sr. No.	YEAR	No. of plants	Budget (Rs. In Lakhs)
1.	1 st Year	1000	2,50,000
2.	2 nd Year	800	2,15,000
3.	3 rd Year	500	2,00,000
4.	4 th Year	400	1,00,000
5.	5 th Year	300	1,00,000
Total		3000	8,65,000

Note: Unit will follow the latest guidelines on green belt designing issued by CPCB.