

1.1.1 Green Belt Development

Proposed Greenbelt within Site Boundary

Project Proponent will develop green belt at suitable locations within site premises. Consultation of Horticulture expert will be sought to make sure adequate development of green belt. The total greenbelt area will be 500 m². Plantation will be carried out around periphery of the project site. Plant species suggested are provided in detail in **Table Error! No text of specified style in document.-1** and five year greenbelt plan is provided in **Table Error! No text of specified style in document.-2**.

Table Error! No text of specified style in document.-1: List of plant species for Plantation in LIZ Area

S. No	Scientific Name	Common Name	Ecological performance	Locations
1	Aegle marmelos	Bel	CN, DC	Agriculture Hedges
2	Azardirachta indica	Neem	CN, OGE, DC	
3	Delbergia sissoo	Shisham	DC, DR, FR	
4	Delonix regia	Gulmohar	DC	
5	Syzygium cumini	Jamun, Jambu	CN, DC	
6	Terminalia catappa	Desi Badam	CN, OGE, DC	
Ecological performance: CN –Control Noise level, OGE – Absorb Gas emission (Sexena 1991)1 and (Abbasi & Khan 2000)2. DC - Dust Controller (CPCB 2007)3.				

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Sr. No.	Description	Tree	Shrub
1	1 st Year	25	2
2	2 nd Year	25	5
3	3 rd Year	25	5
4	4 th Year	25	5
5	5 th Year	25	3
		125	20

Budget Allocation for Greenbelt within Project Site

Considering approx. Cost @ Rs. 100 per sapling / plant, the budget for proposed Greenbelt Development will be ~Rs. 12500 INR and cost @ Rs. 10 per sapling and 20 for Shrubs. Recurring cost per Annum is Rs. 200 for greenbelt development.

Plantation Technique and Care

¹ Saxena, V.S. 1991. Afforestation as a tool for environmental improvement. In: Executive development program on greening the townships. Vaniki Prashikshan Sansthan, Jaipur. Pp 13-44.

² Greenbelts for Pollution Control: Concepts, Design, Applications. 2000. Abbasi, S.A. and F.I. Khan. Discovery Publishing House, New Delhi.

³ Phytoremediation of particulate matter from ambient environment through dust capturing plant species. Published 2007 by Central Pollution Control Board, Ministry of Environment & Forests, Govt. of India in Delhi.

Plantation Technique

Following basic procedures need to be followed for greening the area.

Since the project area having poor / slightly saline soil quality, plantation of tree species required approx. 1m³ pit for soil enrichment

Pit should be filled with imported soil with 3:1:1 the ratio of sand, silt and farm yard manure

Procure well grown saplings of recommended species from the nearby Forest Department nursery

Make 1m diameter ring bund around the planted saplings for water retention

Watering of sapling is species specific, therefore watering need to be done daily in monsoon and once in 2 days in other seasons for a period of two years.

Monitoring Protocol

The plantations need to be managed by regular watering, soil enrichment work, applying manure, weeding and provide proper protection.

Replacement of sapling (replanting) required whenever mortality occurs in the plantation during the growth stage.

Plantation requires after care for a period of minimum five years till the saplings attain matured tree stage.

Any damage to the developed greenbelt due to any natural or cattle activity should be redeveloped and maintained by the agency.

Conservation Plan for Schedule-I Species

Conservation plan has been prepared to enhance the population status of this Schedule species as well as overall improvement of biodiversity which will be implemented in consultation of "Local Farmers and State Forest Department".

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Likely Impact Zone (LIZ) Description

- Selection of Plant Species
- All the facts considered for species selection are same as facts considered for greenbelt development within project site premises.
- Habitat Improvement through Plantation in LIZ
- In identified LIZ area, plantation will be carried out on the agriculture hedges.
- Following budget is allocated for additional greenbelt, habitat improvement and conservation of threatened species of the study area.

Multi-layered plantation comprising of medium height trees (6-8 m height) and shrubs (3-5m height) will be proposed for the green belt. The plan comprises of a five year program from 1st year to 5th year for greenbelt development.

(i) Plan for 1st year (Trees/Saplings Plantation)

- The work plan for the first year, digging of pits and soil conditioning
- Planting of saplings
- Surveillance maintenance and irrigation of the saplings to achieve maximum survival

(ii) Plan for 2nd year (Additional Trees/Saplings Plantation + Replacing Dead Trees)

- The work plan for the second and third year
- Maintenance and irrigation of species planted earlier.
- Survey of the area to identify the locations for replantation and causality replacement
- Removal of dead trees and replantation based on specific location requirements

(iii) Plan for 3rd and 4th year (Replacing Dead Trees + Maintaining the Greenbelt)

- The work plan for the fourth year
- Maintenance and irrigation of species planted earlier.
- Survey of the area to identify the locations for replantation and causality replacement
- Maintenance and irrigation of plants to achieve the targeted rate at 100%.

(iv) The work plan for subsequent years comprises (Maintenance)

- Maintenance of plantation.
- Clearing of afforested areas to remove undesirable species
- Replacement of dead and diseased/malformed species with new ones

Table Error! No text of specified style in document.-3: Budget for Additional Greenbelt outside premises / Habitat Improvement Programme

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