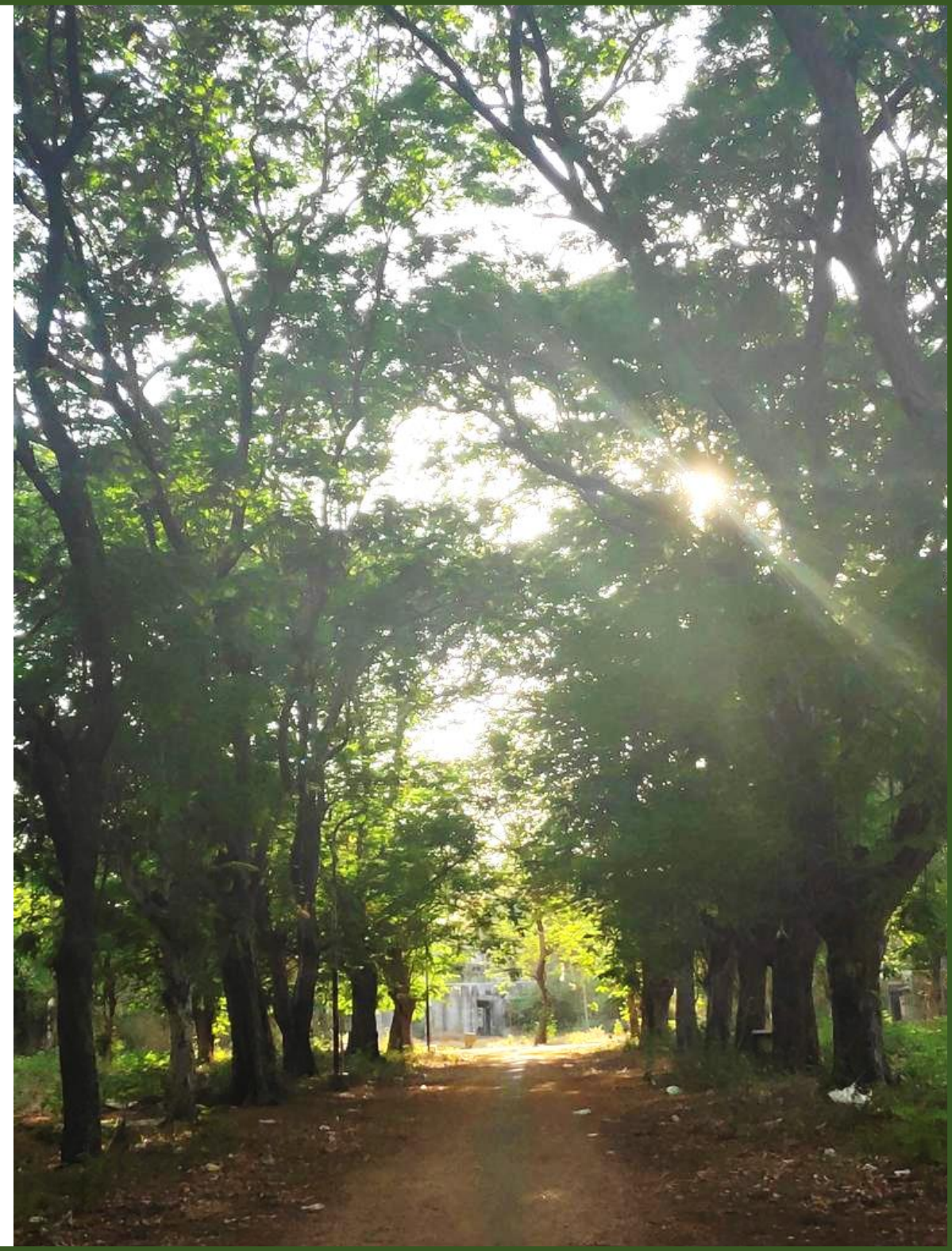




**MoEF&CC's Environmental Information System
Resource Partner,
Consumer Education & Research Centre
Ahmedabad, Gujarat**

URBAN GREEN SPACE





URBAN GREEN SPACES:
Promoting green setting for urban community

Urban Green Space (UGS) is public and private open space in urban areas, primarily covered by vegetation, which are directly or indirectly available for the users such as parks, gardens, roadside vegetation, etc.

UGS play a vital role in reducing air pollution, mitigating climate change, and providing various ecosystem services.

BENEFITS OF URBAN GREEN SPACES

Environmental Benefits

- It purifies air, thus improving the air quality and serve as a valuable source for enabling urban agriculture, regulating the microclimate, & controlling the urban heat island phenomenon.
- It regulates water flow & improve water quality.
- It provides vital habitat for wildlife, & makes nature accessible.
- It reduces noise pollution due to vehicular movements.
- It functions as protection centre for reproduction & conservation of indigenous species & soil

Economic & Aesthetic Benefits

- It provides a cooling effect & help to lower air temperature, thus reduces the energy costs of cooling.
- Green Spaces and landscaping increase property values and financial returns for land developers.
- It is self sustainable and requires minimal maintenance

Social & Psychological Benefits

- Urban green spaces serve as a near resource for relaxation, by providing emotional warmth.
- Decreases respiratory illness
- Increases the physical & psychological well being of urban citizens
- Reduces stress level
- Increases work productivity & improves mental health.
- It provides shade from the staunching heat



Commercial Value of a Tree

<http://www.green-umbrella.org/>

Production of Oxygen - Rs.2.5 Lacs

Humidity control
&
Recycling of Water - Rs.3.0 Lacs

Air Pollution Control - Rs. 5.0 Lacs

Controlling of Soil
Erosion & Fertility - Rs.2.3 Lacs

Nesting of Birds,
Squirrels, Insects
& plants. - Rs.2.5 Lacs

Rs. 15.30 Lacs

Above Mentioned value is excluding of its Timber, Fruits and Flowers

Grow More Trees !!!



THE POWER OF TREES

REMOVE CARBON DIOXIDE

LOWER COOLING COSTS

CLEAN AIR AND WATER

WAY OUT

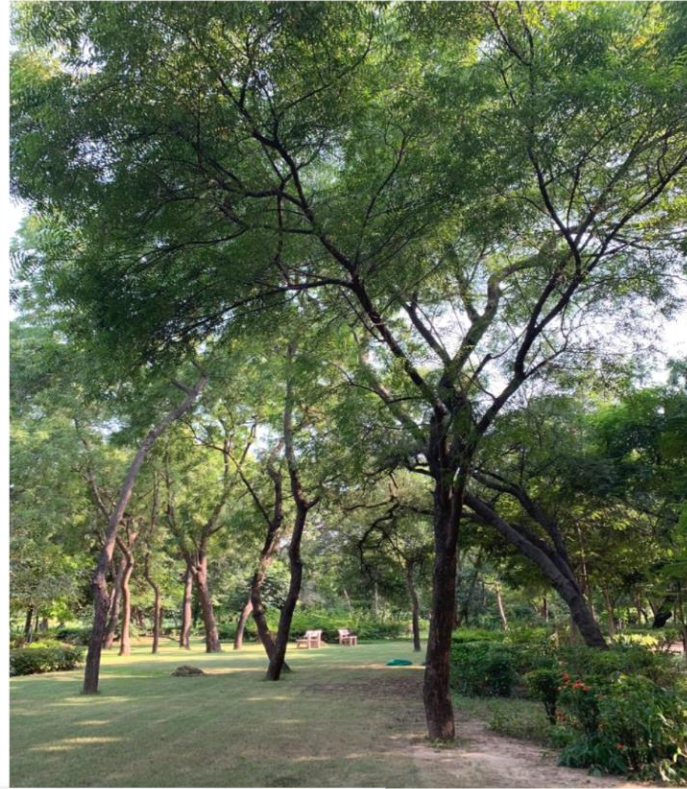
Japanese Miyawaki Micro Forests Methodology

- Miyawaki methodology developed by Japanese botanist, Akira Miyawaki can help achieve the target of 50 trees per person.
- Method involves planting different types of trees close together.
- By closely planting many random trees in a small area it enriches the green cover & reinforces richness of the land.
- Leads to co-existence of plants and each plant draws from others, the vital nutrients require to grow to become strong and healthy.
- Approximately 30 times more dense, as compared to conventional plantation techniques.



- Due to high plantation density, more number of trees can be accommodated in less space.
- These plantations have faster growth rate; saplings are planted when they are 0.2-0.3 m tall – average height of the forest becomes 3-4 m in one year and 6-7 m in two years
- Miyawaki forests become self sustainable in two years; post which minimal to no maintenance would be required
- These plantations are highly robust and have significantly higher survival rates in factories where there is exposure to pollution and other disturbances
- Up to 30 times or more Carbon-dioxide absorption as compared to conventional forest.
- Substantially higher noise reduction as well as dust isolation.
- A completely chemical-fertilizer free forest that sustains itself and supports local biodiversity.
- Increased resistance to environmental disturbances like climate and diseases – greater diversity removes vulnerability from simple systems.

Park/ Community Garden



Land along side
a river used for
elements of
recreation

River Front



Oxygen Park



Parks/ community gardens in city areas are built
for community engagement and to reduce
negative effect of urban development.

High amount of oxygen releasing trees are
selected on the basis of local climate adaptability,
soil conditions & water absorption capacity.



Office Space



Company's/Office parking lot or common area, sidewalk and concrete parking blocks can be used for growing for plants.



Industry Space



Vertical Gardens



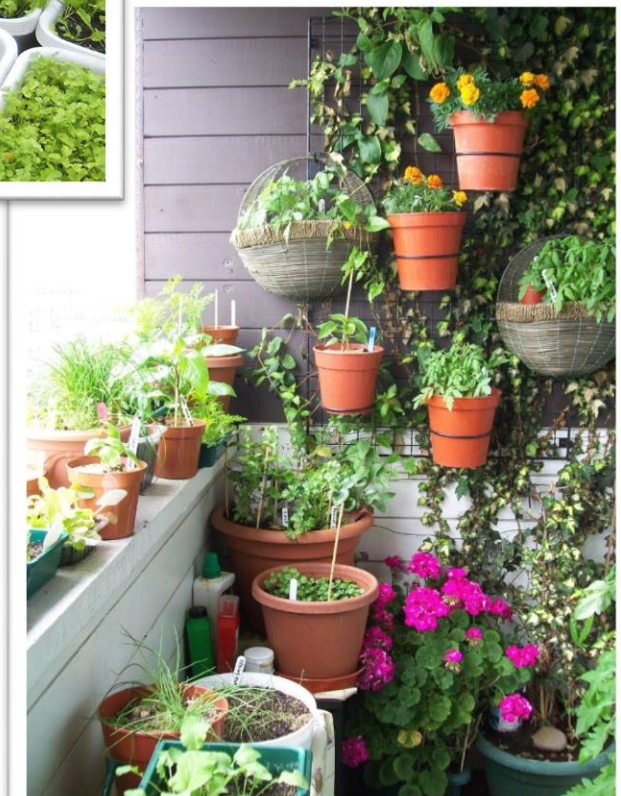
Vertical gardening is a technique used to grow plants on a vertically suspended panel by using hydroponics. Balcony space of high rise office building, bridge pillars & metro pillars are used for gardening.



Terrace & Balcony Gardens



Balcony space & terrace area at homes used for growing vegetables, air purifying plants etc.



Green Dividers

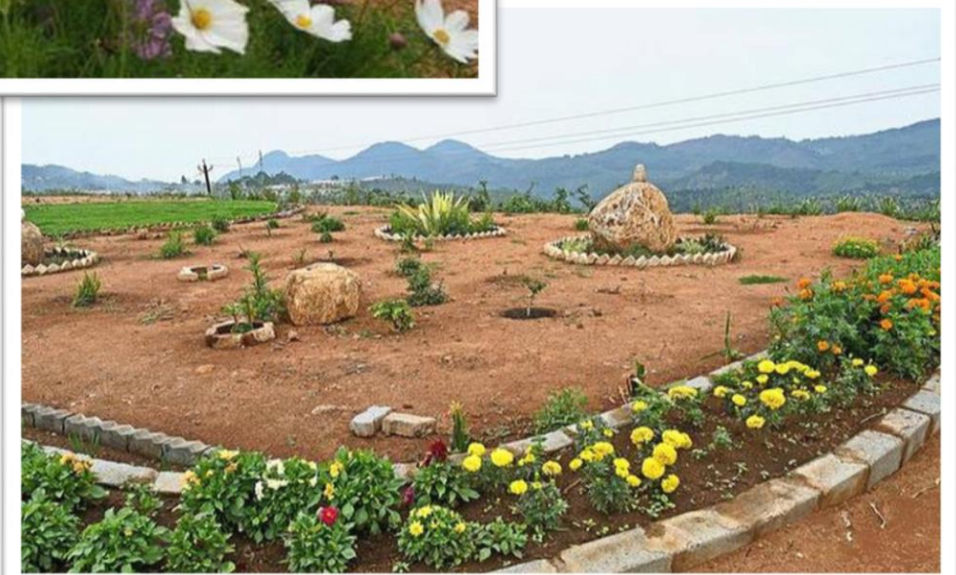


Planting small trees and large shrubs on the divider & road side helps in reducing air pollution & traffic noise

Landfill turned into green area



Landfill site transformed into a ornamental garden serving as a positive influence for local communities.



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*"The one who plants trees, knowing that he will never sit in their shade, has at least started to understand the meaning of life."
-Rabindranath Tagore*