
Welcome to Gaia Environmental Services



Gaia Care Pune



Gaia Environmental Services

1. About Gaia Care
2. Offerings & Services
 - I. Urban Forest
 - II. Forestscaping
 - III. Vertical Garden
 - IV. Phytoremediation
 - V. Solid Waste Management

Gaia Care Pune





**A START UP
COMPANY
PROMOTED
BY GREEN
ENTHUSIASTS**

VISION STATEMENT

At Gaia Care it is our endeavour to be a leading eco-sensitive organisation desirous of promoting sustainable living thereby making the earth a better place to live for future generations.

GOAL

To sensitize every individual with a sense of reciprocity to start giving back to our **GAIA , MOTHER EARTH** as much as we take, thereby enriching their quality of life and make this world a better place to live in .

MISSION STATEMENT

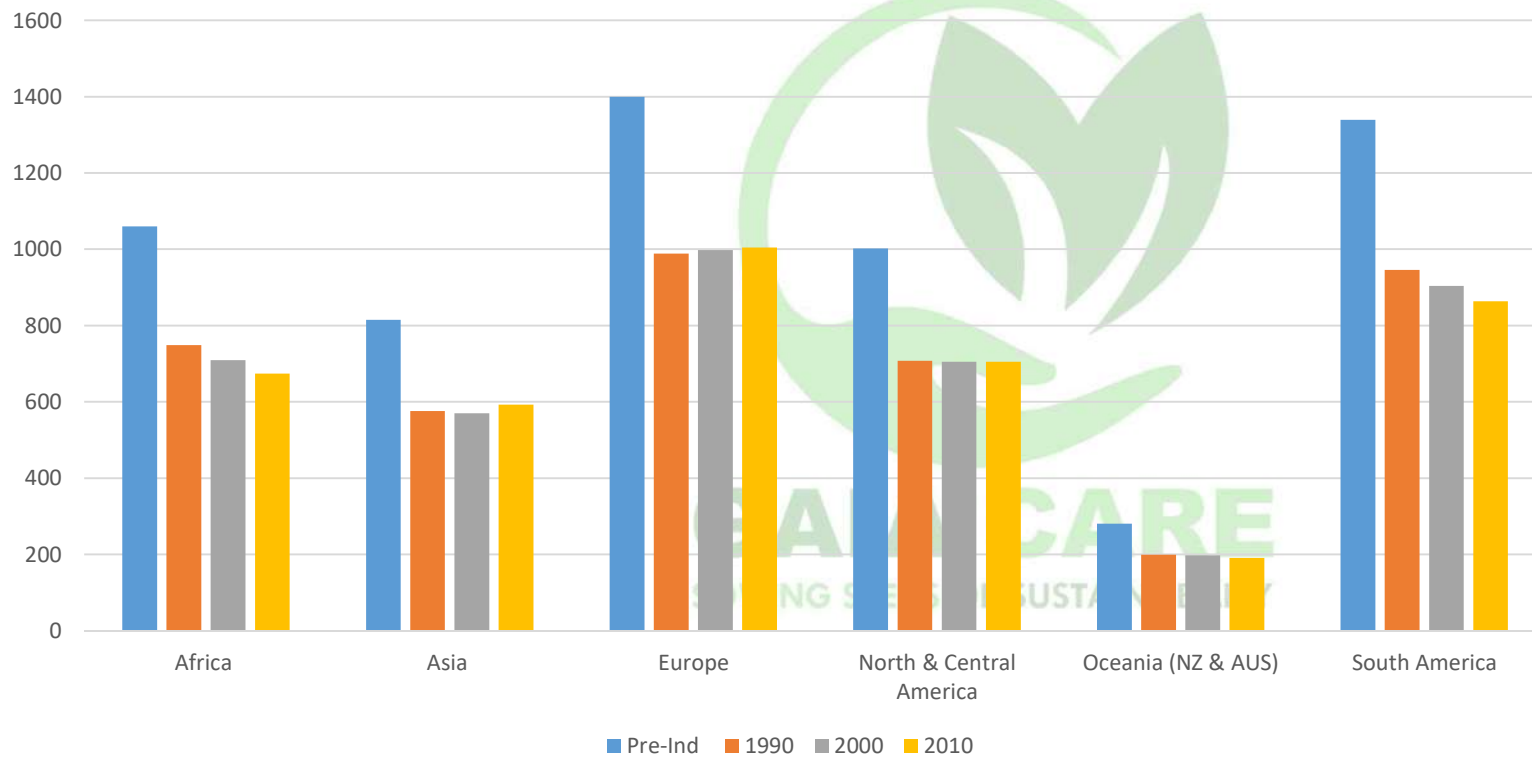
To help alleviate the effect of Climate Change by promoting sustainable living and to plant more than 1 lakh trees & 2 lakh plants (Vertical Garden) up to 2022.

VALUES

- Integrity
- Customer Centricity
- Accountability
- Respect for environment .

Alarming State of our Global Forests Cover

Global Forest Cover
Pre-industrial Era - 2010 (Million Hectares)



Fall of more than 33% since pre-industrial era.

Acute Water crisis in the world & India

- 70% of earth's surface is covered with water but only 2.5% water is potable.
- Out of the 2.5%, 2% is stuck in polar regions & glaciers & all fresh water in rivers, lakes dams across the world is only 0.5%
- Global ground water withdrawals for domestic use has tripled in last 50 years.
- Global water requirement for manufacturing has increased manifold since pre-industrialization era & set to increase by 400% by 2050.
- Organization for Economic Co-operation & Development (OECD) predicts that 50% of global population would be water stressed by 2030
- India has 18% of global population & only 0.002% of 0.5% global fresh water.
- Water @ depth of 400-600 ft is 500+ yrs old, most cities in India have already breached the limit & digging further downwards.
- 21 cities in India to run out of ground water by 2020 as per a GOI report.

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Infinite growth on a finite planet is it really possible ?

Abuse of Earth & its produce.

- Earth can provide for 4.5 billion people and we are currently 7.5 billion soon to touch 9.0 billion.
- 2000 acres of mature forests are being destroyed every hour bringing the world green cover to less than 30%.
- We consume the earth's one year resources in 7 months itself & balance 5 months we live in overdraft from our children's share.
- 96% of mammal mass on earth is humans & its livestock, balance 4% is all wild animals whether in captivity or free and fast becoming extinct.
- 70% of all birds are now domesticated birds mostly chicken.

GAIA GREEN
SOWING SEEDS OF SUSTAINABILITY

Abuse of Water

- We consume 5-7 kgs of grain & approx 4500 litres of water every time we consume 1 kg of chicken.
- Decreasing tree cover & concretisation is preventing seepage of underground water resulting in flash floods as seen in Chennai & Kerala in recent times.



Infinite growth on a finite planet is it really possible ?

Abuse of Water (cont.)

- Every year we draw 251 Lakh Crore litres of water depleting the water table and we have reserves for less than 2 years.
- Jeans production requires 6800 litres of water, while a shirt production consumes more than 2600 litres. Increased fashion trends further exacerbates the problem.

Abuse of Air

- Smog holidays, Urban Heat Islands are new words being added to our vocabulary due to increased pollution.
- Lack of oxygen in regulated indoor environments along with VOCs released by man made things is the leading cause of increased incidence of cancer in cities.
- Humans require 550 litres of oxygen / day, while 1 litre of fossil fuel burns approx 10000 litres of oxygen. With increasing usage of fossil fuels the world over & cutting down of trees we are headed for disaster in near future.
- Earth is 4.6 billion years old, scale it down to 46 hrs, humans have been there for 4 hrs & Industrial revolution began 1 minute ago in which we have created all the havoc mentioned above.



SOLID WASTE MANAGEMENT

URBAN FOREST

SOWING SEEDS OF SUSTAINABILITY

GAIA CARE
SOWING SEEDS OF SUSTAINABILITY

PHYTOREMEDIATION

VERTICAL GARDEN

FORESTSCAPING

EARTH **GRAVEL** **BENCHES**

the forest of well-being

QUIET ZONE

ACTIVE ZONE

NETE

Uptake

Translocation

Detoxification

Modification

Volatilization

Accumulation

Enhancing metals and metalloids ligand production (MTs, PCs, GSH)

Conversion of metals and metalloids to less toxic and volatile forms

Manipulating metals/metalloids transporter genes and uptake system (influx/efflux)

metals/metalloids



URBAN FOREST

I. Based on Japanese Miyawaki Technique.

- 100+ Yrs Old Forest in 10 Yrs (10X Faster)
- 30X More Green Surface Area

II. Mini. Requirement to Grow Urban Forest

- 4 - 5 Meters Width
- 50 Sq. Meters Land Area
- Only 3 Years Maintenance

III. Key Benefits of Urban Forest

- Helps absorb rainwater & prevents top soil erosion.
- Cools the Surrounding environment.
- Increased Bio-diversity
- Sequester Co2
- Help in rain precipitation for the entire area.

I. Urban Forest – Kamshet Forest Pics



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July 2016

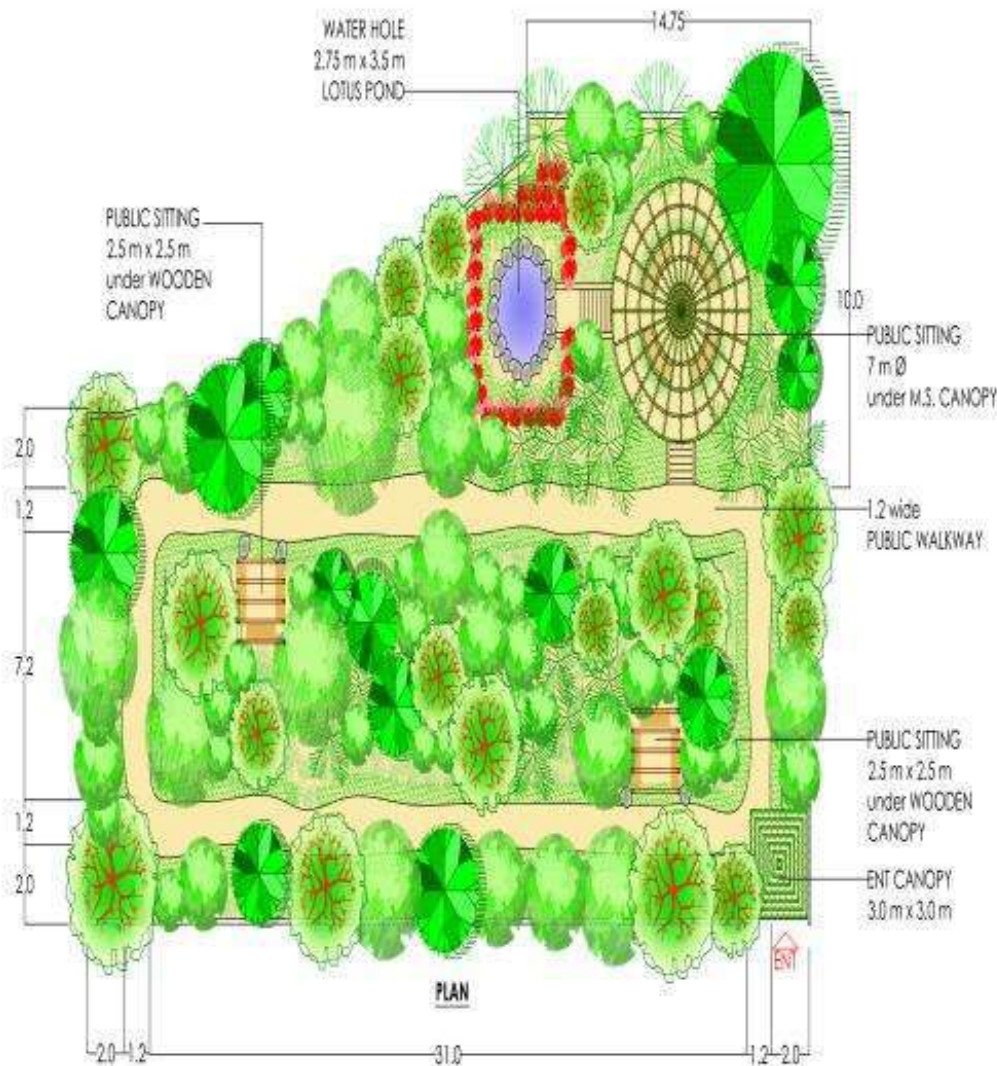


April 2018



September 2018

FORESTSCAPING



I. Concepts of ForestScaping

- Integration of **Art, Design and Forests.**
- **Rejuvenation** centre besides work or living space
- Meeting point or activity area can be designed.

II. Key Benefits of ForestScaping

- Natural Getaway helps **reduce stress & increase productivity** of employees.
- Helps **Sequester** more CO₂.
- Helps **reduce** air-conditioning **costs.**
- **Zero Maintenance** after initial 3 yrs care.



VERTICAL GARDEN

I. Concepts of Vertical Garden

- Indoor Vertical Garden
- Outdoor Vertical Garden

II. Benefits of Outdoor Vertical Garden

- Reduces need for AC indoors
- Helps **reduce Urban Heat Island** syndrome in Cities & towns.
- Offers privacy from **outdoor noise** and pollution & works as a natural sound barrier.
- Shields External surfaces

III. Benefits of Indoor Vertical Garden

- Helps **release stress** & increases productivity.
- Helps **reduce indoor pollution (VoC)** caused due to indoor urban clutter.
- **Saves money** on Decor
- Acts as a **acoustic filter** reducing noise pollution & maintaining indoor ambience.

Independent Vertical Garden (with watering Tank)

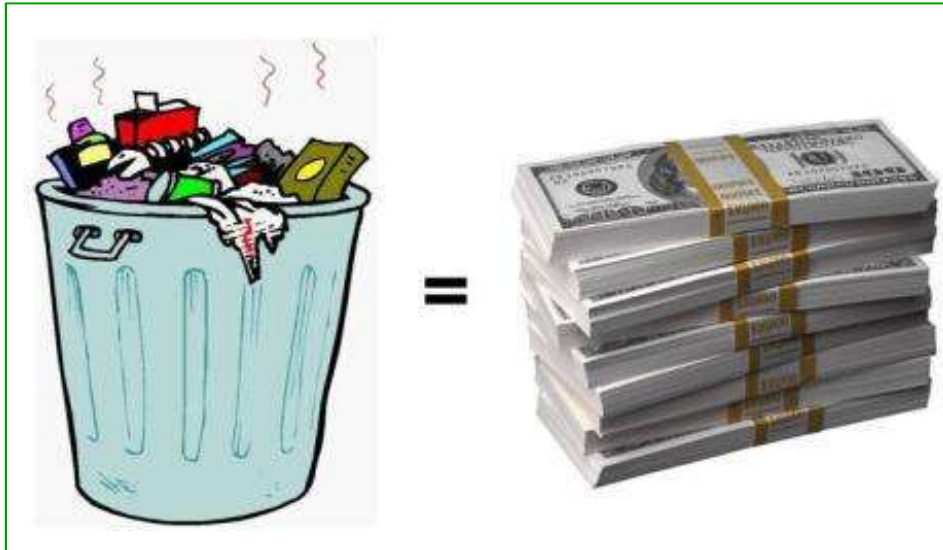


IV Phytoremediation

Phytoremediation or Green Clean, is removal of toxic contaminants from the environment using “Plants”

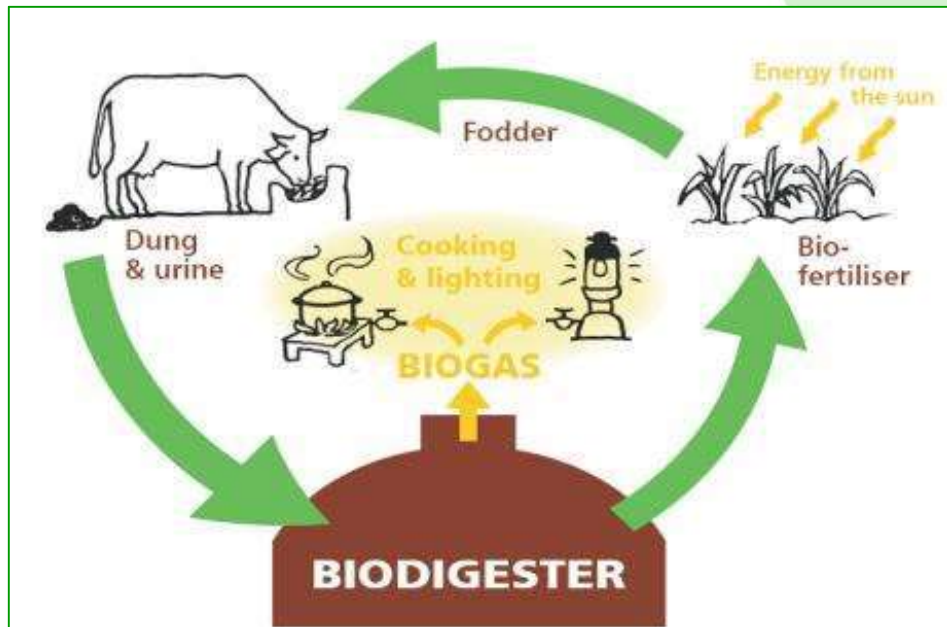
Chemical Pollutants	Source	Common Health Challenges due to Chemical Pollutants
Formaldehyde	Paints, Floor coverings, Air fresheners, Plastic products, furnishings etc	Allergies, Asthma, Eye, Nose & Throat irritations, Headache, Nervous System disorders, Respiratory congestions, Sinus Congestions & even Cancer.
Xylene	Computer and video screens	
Paradichlorobenzene and Naphthalene	Room freshners, Paints	
Alcohol and Acetone	Cosmetics	
Ammonia	Cleaning products	
Trichloroethylene	Perfumes	





I. Challenges Due to Solid Waste in Cities.

- Solid Waste increasing exponentially in cities
- Soil & Ground Water **Contamination**
- **Release of Methane** which is 21 times more potent than CO₂ further impacting climate change.
- Solid Waste is many a times burnt aggravating the **air pollution** situation in many metro cities around the country.



II. Advantages of Biogas

- One of the most **effective ways** of waste disposal.
- Reduces **Soil & Water** contamination.
- **Prevents release of highly toxic Methane** gas in the environment.
- Provides **Clean & Eco** friendly Fuel
- Also provides good quality liquid **organic fertilizer**.

WE HAVEN'T INHERITED THIS EARTH FROM OUR PARENTS, WE HAVE ACTUALLY BORROWED IT FROM OUR CHILDREN.

Let Us Together

**CARE FOR THE ENVIRONMENT
CARE FOR OUR CHILDREN'S FUTURE**

Thank You

