

ENVIRONMENTAL OPPORTUNITIES: ECOGRAM

NORTH BENGALURU
KARNATAKA



About EcoGram

VISION

To create a model Gram Panchayat that secures the well-being of its people by spreading awareness and creating infrastructure for sustainable natural resource management.

MISSION

- Achieve 100% waste management in an ethical and sustainable way
- Make the community self-sufficient by replenishing and securing water access
- Revive soil health by increasing the content of organic matter
- Improve the livelihood of women, and inculcate awareness of environmental matters in students



Implementing Partner: The Anonymous Indian Charitable Trust (TAICT)

Our Model

The EcoGram Project, an environmental initiative by Embassy REIT and its NGO partner, The Anonymous Indian Charitable Trust (TAICT), commenced in July 2017 with the aim of addressing issues of irresponsible disposal of garbage and depletion of soil and water in the Bettahalasuru Gram Panchayat in North Bangalore. The project builds processes and infrastructure for sustainable decentralised waste management, soil quality, and water conservation to lay a strong foundation for future growth. We have also built a Dry & Wet Waste Collection Centre, which will serve the requirement of 10 villages.

WASTE

- Decentralized sustainable solid waste management services for the Bettahalasuru Gram panchayat, as well as large commercial establishments in North Bengaluru
- Generation of employment and livelihood through waste stream management
- Awareness on sustainable consumption and inculcating environmental sustainability
- Identifying suitable partners as service providers

SOIL

- Food security through soil health
- Revival of sustainable agricultural practices
- Increasing biodiversity and improving micro-climate of the Bettahalasuru Gram panchayat

WATER

- Restructuring Liquid Waste Management systems
- Rejuvenation of local water sources to ensure water security
- Low-cost turn-key solutions for water recycling and conservation
- Rainwater harvesting



Challenges



- There is a lack of framework and infrastructure for regular waste collection and disposal.
- Low level of involvement and understanding on sustainable living methods from the communities.
- An increasing loss of biodiversity and over-usage of natural resources.

Focus Areas



Daily Waste Collection across
10 villages in North Bangalore



An integrated **Dry and Wet
Waste Management Centre** set
up in North Bangalore



Education - Trashonomics:
Waste Management workshops
for 5 schools in the
Bettahalasuru Gram Panchayat

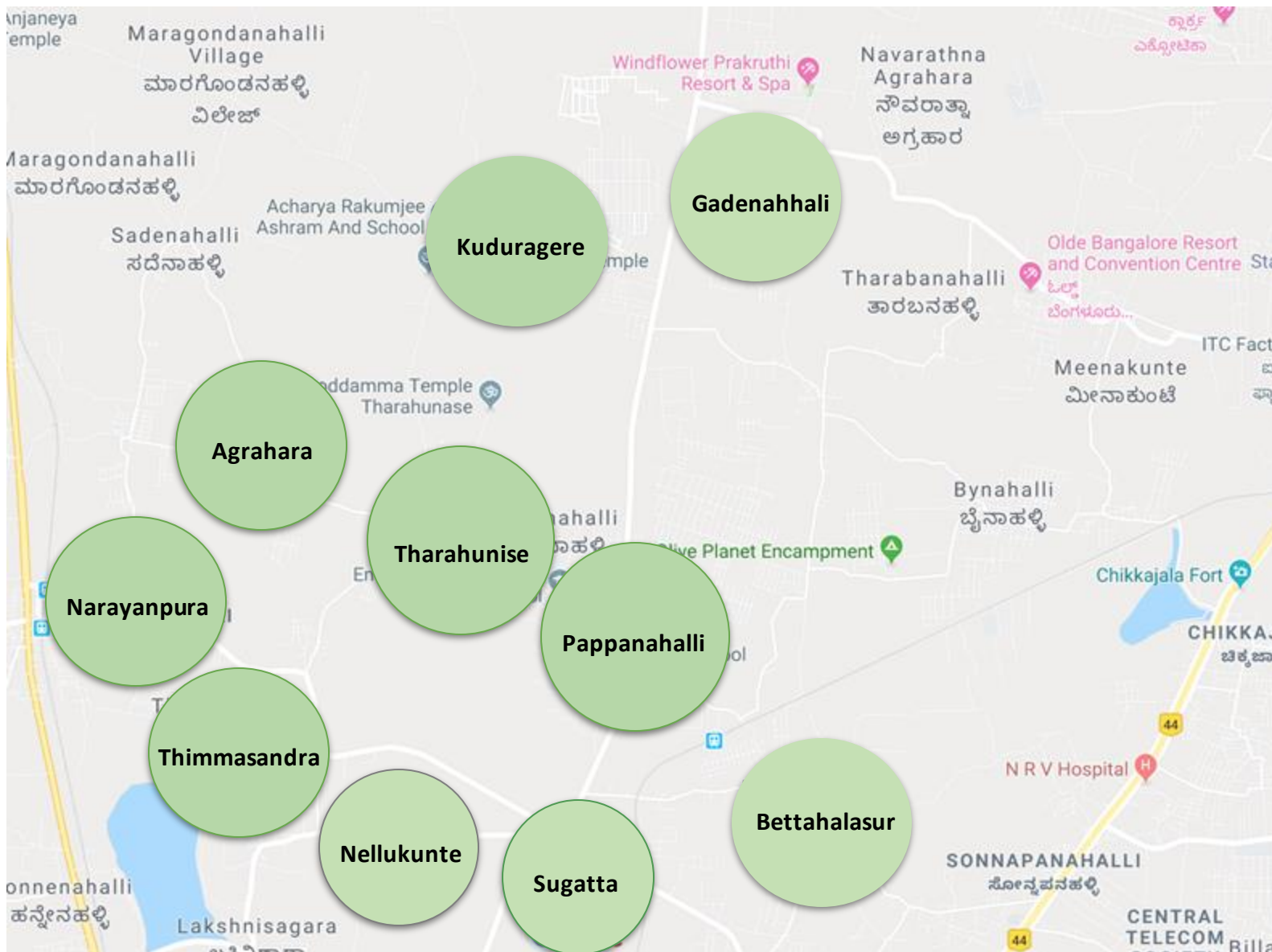


**Community Engagement -
Shakti Sisterhood:** An army of
motivated, driven and strong
women as eco-ambassadors



Lake Rejuvenation:
Nurturing lakes in and
around Bangalore

Waste Management Operations in 10 Villages



BENEFICIARIES

- Residents of the Gram Panchayat
- Local Business Owners
- Schools and Institutions

Number of Waste Generators serviced as of July 2022: 3,958



Areas of current operation



Impact

Year	2016	2017-18	2018-19	2019-20	2020-21	2021-22	Total
Number of Waste Generators	471	564	996	1583	1876	2751	
Dry Waste (kgs)	5,109.00	19,027.00	48,138.00	107,428.00	121,021.00	152,805.00	454
Wet Waste (kgs)	6,546.00	15,672.00	46,731.00	120,109.00	134,426.00	179,778.00	503
Sanitary/Reject Waste (kgs)			429.00	3,914.00	15,830.00	20,512.00	41
Mixed Waste (kgs)		7,813.00	23,339.00	33,235.00	17,056.00	35,910.00	117
Segregation Level		81.62%	80.33%	87.44%	94.08%	90.77%	
Tons of Dry Waste Recycled (MT)	5	19	48	72	110	125	379
Number of Trees Saved	39	144	365	553	587	601	2289
Landfill Area Saved (m ³)	63	222	571	929	1342	1503	4630
Fuel Saved (KL)	6	22	54	81	106	115	384
Energy Saved (MWh)	13	47	119	180	235	256	850



Recycled 379 tonnes of dry waste



2289 trees saved by recycling paper



4630 cubic metres of landfill area saved (3.8 acre-ft)



384 KL of fuel saved



850 MWh of energy saved

Employee Engagement Opportunities



Pre-requisites:

1. Participants need to be fluent in either Kannada or Hindi for the door-to-door-awareness and trashonomics workshops
2. Participants need to be practising the 3-way waste segregation system at home door-to-door-awareness and trashonomics workshops

Clean Up Drives

PROCESS:

1. The duration is usually 4-5 hours. To avoid the hot sun, We start early in the morning.
2. The group convenes at the pre-decided location, followed by a briefing and group allocations
3. Participants collect the litter at their designated areas and unload it at a specified location
4. Once all the litter is collected at the specified location, the waste management team will further process it

PLEASE NOTE:

1. Gloves and a bag to collect litter is provided to each participant
2. Participants are expected to carry their own water bottles and caps.
3. We will provide water, breakfast and other refreshments.
4. Participants are advised to wear comfortable clothing and footwear.

ESTIMATED COST PER PARTICIPANT:

ITEM	COST
Gloves	Rs. 38
Collection Bag	Rs. 20
Sanitizer	Rs. 5
Breakfast and Refreshments	Rs. 90
Waste processing (per 7kgs)	Rs. 70
Administrative cost	Rs 50
TOTAL	Rs. 273



Beautification

PROCESS:

1. Post the clean up drive for some projects, participants will then participate in a short painting activity

PLEASE NOTE:

1. Gloves and a bag to collect litter is provided to each participant, along with all painting equipment for the beautification
2. Participants are expected to carry their own water bottles and caps.
3. Water, breakfast and other refreshments can be organized at an additional cost as required.
4. Participants are advised to wear comfortable clothing and footwear.

Cost per person: Rs. 1500

Implementing partner: The Ugly Indians



D2D Awareness – Solid Waste Management

PROCESS:

1. The duration is usually 4-5 hours. To avoid the hot sun, We start early in the morning.
2. The group convenes at the pre-decided location, followed by a briefing on wastewater management and group allocations
3. Each Participant is expected to go door to door in his/her specified area. Awareness is given on wastewater management and general sustainable day-to-day practices.

PLEASE NOTE:

1. Pamphlets and posters are provided to each participant.
2. Participants are expected to carry their own water bottles and caps.
3. We will provide water, breakfast and other refreshments.
4. Participants are advised to wear comfortable clothing and footwear.

ESTIMATED COST PER PARTICIPANT

ITEM	COST
Pamphlets	Rs. 260
Sanitizer	Rs. 5
Breakfast and Refreshments	Rs. 90
Administrative cost	Rs 50
TOTAL	Rs. 405



Trashonomics Workshop

PROCESS:

1. Each participant receives training on conducting 2 modules of the Trashonomics school programme.
2. Each participant will conduct 3-day session (3 hr each day) for each module.
3. The participant will conduct the Trashonomics workshop for a maximum of 30 students at a time.

PLEASE NOTE:

1. We will provide tools including books, videos and activity materials
2. The Trashonomics school programme is designed for primary and middle school students.
3. Participants are expected to carry their own water bottles.

ESTIMATED COST PER PARTICIPANT

ITEM	COST
Training for the trainer	Rs. 480
Sanitizer	Rs. 5
Recycling Chart	Rs. 30
Teacher's Instruction Manual	Rs. 50
Segregation Game	Rs. 200
Compost Junior kit	Rs. 500
Trashonomics poster	Rs. 30
Books (1 book per trainer + 10 books per session)	Rs. 105
2bin1bag kit	Rs. 200
Breakfast and Refreshments	Rs. 360
TOTAL	Rs. 1960



Tree Plantation

PROCESS:

1. Participants will prepare holes, plant saplings; water and mulch them after planting
2. Participants should bring Hats, Gloves, and Water bottles
3. Tools provided by TAAICT : Mamtis (5), Bandlis (5), Mulch, Gobra/compost, A wheelbarrow
4. Brunch at 11 am - Local cuisine - Zero waste
5. There will be around 8-10 people from TAAICT including Lake Gardeners and a Field Coordinator to assist your team.

ESTIMATED COST PER PARTICIPANT:

Cost of sapling - Rs100 - Rs200 per sapling depending on the type

Cost of breakfast per person - Rs50

Materials cost sapling - Rs100

Each person can plant about 20 saplings in 3 hours



Support Waste Collection for a Village

Operational cost per household: Rs. 162 per month

VILLAGE	NUMBER OF HOUSEHOLDS
Gadenhalli	144
Sugatta	467
Kudrugere	232
Tharahunise	490
Agrahara	121
Timmasandra	222
Narayanapura	189
Bettahalsuru	1089
Nellakunte	374
Papanahalli	42
TOTAL	3370

Namma Jalamarga

Bangalore's Waterways or Stormwater Drains today are filled with Garbage and Sewage which causes urban flooding and toxic lakes. The stormwater drains are part of our collective heritage, and must be protected with urgency considering the dire conditions they are in.

In tandem with this goal, the BBMP has endorsed an awareness campaign called Namma Jalamarga with The Anonymous Indian Charitable Trust. The campaign aims to educate everyone on the importance of our Waterway Systems.

To learn more, visit <https://www.nammajalamarga.in/>



NGO Partner: TAICT

For the past decade, TAICT has been involved with various Solid Waste Management projects, and has brought together all its learnings to create the Ecogram project. This project is an experiment in creating a model community by implementing the law and best practices through dedicated planning and leadership.

Concerned with the lack of accountability and ownership over depleting natural resources and alarming rates of environmental pollution, TAICT looks to address basic issues of the environment, health and hygiene through simple, practical solutions.

TAICT distinguishes itself from other instruments of change in that it is focussed on thorough, high quality execution of projects by uniting a strong sense of commitment, thoughtful design and attention to detail.

Embassy REIT funds their 6-member team.



Implementing Partner: Hasirudala Innovations

Hasirudala Innovations is a for profit organisation that works towards enhancing livelihoods of informal waste pickers by guaranteeing access to waste, offering them training and formal employment, which allows them to lead a better quality of life and avail government welfare services. Their innovative and human centric approach to tackling issues with waste make them an irreplaceable repository of knowledge on the subject.

TAICT took on the role of project management and coordination between stakeholders and partnered with Hasirudala Innovations as a service provider. Their responsibilities were mapping existing waste management systems in the area, recruiting a team to conduct the waste management services, disseminating initial knowledge and awareness and taking up the daily operations of collection, road cleaning, segregation, and sale of waste. Their focus is on working with informal waste pickers by recruiting them from an area, training and equipping them and offering them formal employment.



Thank You
