



GITAM
DEEMED TO BE UNIVERSITY

BENGALURU • HYDERABAD • VISAKHAPATNAM



SDG # 6

Progress Report : 2022-23

GITAM University – SDG #6 -Clean Water and Sanitation-Progress report 2022-23

Introduction:

SDG 6 is foundational for ensuring a healthy and sustainable future for all people and the planet. Achieving this goal requires global cooperation, sustainable water management, and investments in infrastructure and education. By addressing the challenges of access to clean water and sanitation, we can improve health, reduce inequalities, enhance economic development, and protect the environment, paving the way for a more equitable and prosperous world.

Research:

- ☞ Research Publications in Scopus Index: GITAM has a relative activity index of 1.3 in its Scopus indexed publications relating to SDG6 during the reference period of 2021-2023.
- ☞ Projects: GITAM is supported by Department of Science and Technology (DST) in establishing one project. Dr. Subhash Chandra's research focuses on the development of sustainable carbon electrodes derived from biomass waste for application in Membrane Capacitive Deionization (MCDI) technology. The core objective is to improve desalination methods for brackish water, particularly for industrial uses, through a more environmentally friendly and cost-effective approach.

Education:

GITAM offers programs relating to Architecture, environmental Sciences, medical and para medical courses et. These courses would deal with water resources management, water pollution, water disposal, water reuse etc. topics in details.

A few to mention:

- ☞ In B.Sc. Renal Dialysis Technology, Water resources. Types of water pollution, control measures. Water quality standards, water treatment system in dialysis, how to prevent this hazardous water entering into natural water bodies system etc are covered.
- ☞ In B. Sc. And M.Sc. Environmental Science, a course named 'WATER QUALITY AND WASTEWATER MANAGEMENT' covers the key topics like water quality and health, water treatment methods, water management.
- ☞ Masters in Sustainable Architecture covers the topics like water harvesting, waste water treatment, water supply systems, Identify the Innovative approach to optimal use of waste and separations of

wastewater and Greywater for disposal/recycling, Controlling the water cycle; water management in smart cities and community, industrial waste and effects on river and water bodies, water pollution controlling methods.

Key initiatives:

- ☞ **Free Drinking Water** : GITAM provides free drinking water for all the students and staff. It has reverse osmosis (RO) plants to Purify Water that is used for drinking purposes.





☞ **Water harvesting:** GITAM adopts sustainable water extraction methods by having rainwater harvesting pits near the bore well to recharge them. This method is very effective in maintaining the ground water levels to meet the growing needs of water for the use of campus population.

- ✎ Apart from that GITAM has 92,995 sq. m for water absorption on campus besides the forest and planted vegetation.

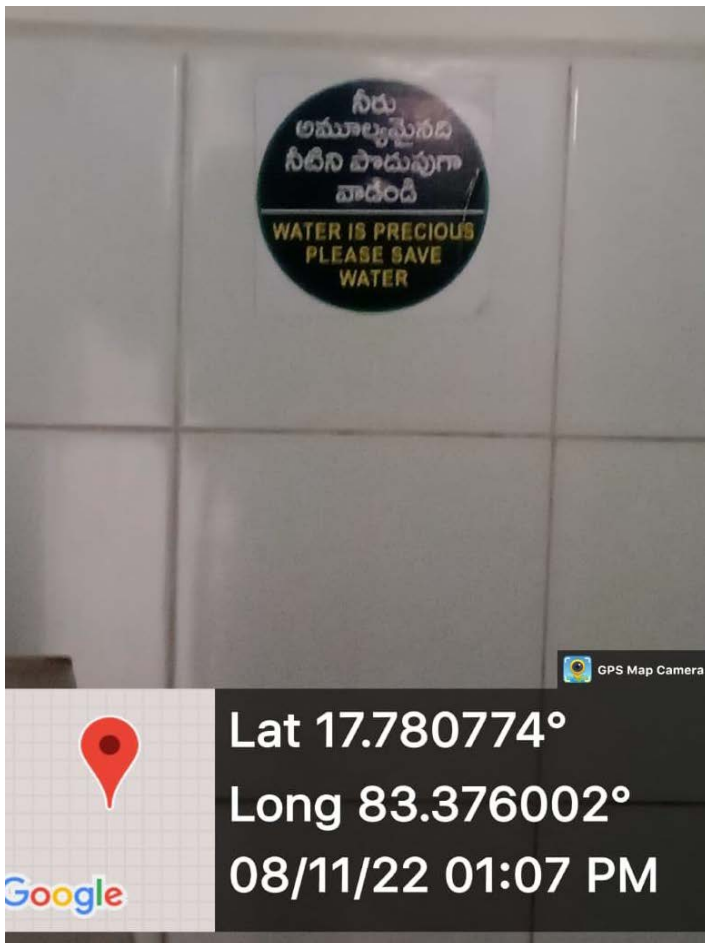




☞ **Water Recycling and reuse:** GITAN has well established water distribution system and It has sewage treatment plants to recycle the waste water and reuse it for the gardening purpose.



☞ **Water conscious Usage:**





Plantation of drought tolerant plants



Common Name: Golden Bamboo

- **Telugu name:** Dieldrin
- **Family:** Poaceae
- **Genus:** Bambusa
- **Species:** B.Vulgaris
- **Type:** Fast growing grass with woody stems
- **Native To:** Tropical/ Sub-Tropical Asia
- **Uses:** Erosion control and drought resistant and has medicinal value



Common Name: Hong Kong Orchid Tree

- **Telugu Name:** Devakanchanamu
- **Family:** Fabaceae
- **Genus:** Bauhinea
- **Species:** B.Blakeana
- **Type:** Medium sized evergreen tree
- **Native To:** Hong Kong
- **Uses:** Avenues, Parks and Gardens, Attractive purple flowers, drought tolerant



Common Name: Mother-in-law's tongue, Snake Plant

- **Telugu Name:** Pamu mokka
- **Family:** Asparagaceae
- **Genus:** Sansviera
- **Species:** S. Trifasciata
- **Type:** Evergreen perennial plant
- **Native To:** Africa
- **Uses:** Ornamental plant, hass air purification qualities as per the NASA Clean Air Study, drought resistant



Common Name: Indian Beech Tree, Karanj

- **Telugu Name:** Pungu
- **Family:** Fabaceae
- **Genus:** Pongamia
- **Species:** P. pinnata
- **Type:** Fast growing deciduous tree
- **Uses:** Drought tolerant, medicinal plant



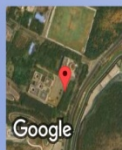
Common Name: Guava, Amrood

- **Telugu Name:** Jaamchettu
- **Family:** Myrtaceae
- **Genus:** Psidium
- **Species:** P. Guajava
- **Type:** Small single or multitrunked tree
- **Native To:** Tropical Americas
- **Uses:** Flood, drought and wind resistant, fruit nutritious



Common Name: Neem

- **Telugu Name:** Chinta chettu
- **Family:** Fabaceae
- **Genus:** Tamarindus
- **Species:** T.indica
- **Type:** Leguminous evergreen tree
- **Native To:** Tropical Africa and India
- **Uses:** furniture, edible fruit pulp, medicinal properties, drought and salt resistant



Visakhapatnam, Andhra Pradesh, India
Q9jh+9mq, Gandhi Nagar,
Rushikonda, Visakhapatnam,
Andhra Pradesh 530045, India
Lat 17.780575° Long 83.379376°
13/11/24 11:43 AM GMT +05:30

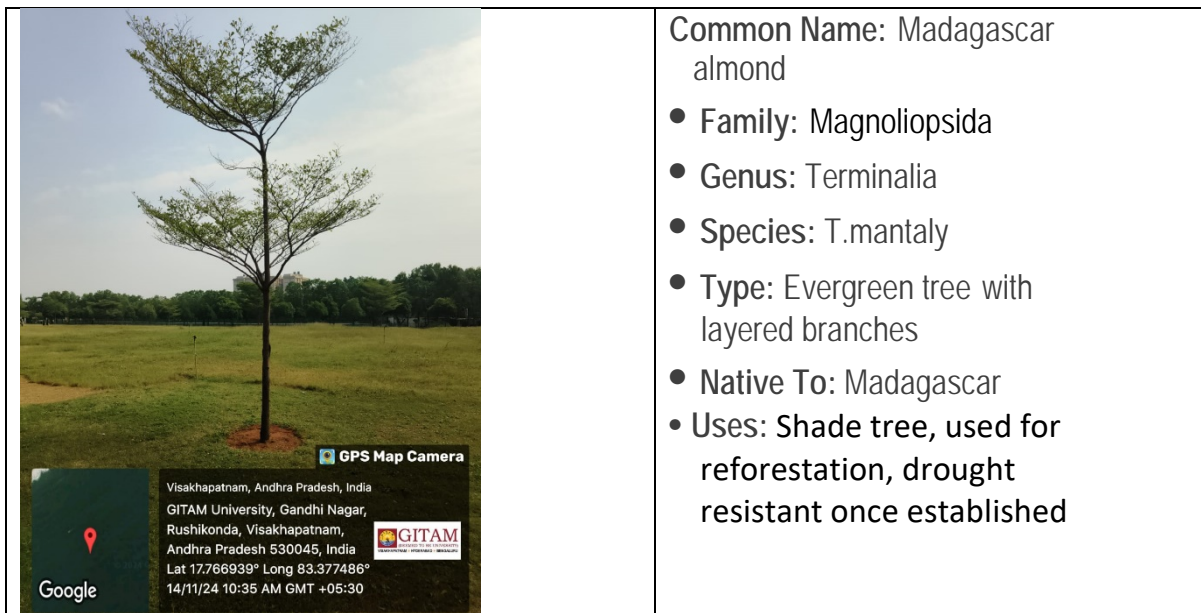


GPS Map Camera



Common Name: Manila palm

- **Family:** Arecaceae
- **Genus:** Veitchia
- **Species:** V.merrilli
- **Type:** Evergreen
- **Native To:** Philippines
- **Uses:** Drought resistant, the bark and wood are astringent. Avenues and gardens.



Engagement:

On World Water Day 2023, GITAM organized a series of events aimed at raising awareness about the importance of water conservation and management. These events included seminars, panel discussions, and workshops, as well as hands-on demonstrations and activities to showcase sustainable water practices. The participants were encouraged to take the pledge to conserve water and implement these practices in their daily lives.



☞ On 3rd November 2023, a day-long session on 'Farmers Empowerment through Technology Innovation and Capacity Building', GITAM University in collaboration with Indian Network on Participatory Irrigation Management (IndiaNIPM), was organised at the Knowledge Resource Centre in GITAM Deemed to be University, Visakhapatnam Campus. Anuj Kanwal, Commissioner, Command Area Development and Water Manager and Bureau of Water Use Efficiencies (CADWM & BWUE), Department of Water Resources, Ministry of Jal Shakti, and Rajendra Poddar, president of IndiaNIPM, and 150 farmers from Andhra Pradesh, Telangana, Maharashtra, Chhattisgarh, Rajasthan, Karnataka, Madhya Pradesh, Uttar Pradesh and Gujarat participated. The Jal Shakti officers and advanced technology experts interacted with the farmers. They demonstrated the latest technology available for Indian farmers to save water and how to get more yield with less water.

Collaboration:

☞ Indian Institute of Science (IISc), Gitam University, and Water Technology Centre – Water & Effluent Treatment (WET IC) Division of L&T have signed a Memorandum of Understanding (MoU) to advance research and development in areas relevant to India's needs. Under the MoU, the three organisations will collaborate in areas such as water and wastewater transport & treatment, hydrology, AI and ML interventions in water and wastewater treatment, and environmental protection. The partnership will focus on developing innovative and sustainable solutions to address India's challenges in these critical areas.

Way forward:

GITAM is committed to provide safe drinking water for its stakeholders and also contributing for the maintenance of water resources with better management, following recycling and reuse methods. It will continue its efforts through research activities, and community outreach activities towards reducing water pollution, better water management in the wider community.