



GITAM
DEEMED TO BE UNIVERSITY

BENGALURU • HYDERABAD • VISAKHAPATNAM



SDG # 15

Progress Report : 2022-23

Introduction:

Sustainable Development Goal 15 (SDG 15), titled "Life on Land," focuses on the urgent need to protect, restore, and promote the sustainable use of terrestrial ecosystems. This goal is centered around maintaining the health and vitality of the world's land-based ecosystems, including forests, deserts, mountains, grasslands, wetlands, and other critical landscapes. It also seeks to halt biodiversity loss, combat land degradation, and ensure the responsible management of natural resources to sustain life on Earth. SDG 15 is vital because land ecosystems play a central role in sustaining life. They provide essential ecosystem services such as clean water, fertile soil for agriculture, carbon sequestration, flood regulation, and habitat for wildlife. These ecosystems are the basis of food security, livelihoods, cultural practices, and global biodiversity. However, human activities such as deforestation, overexploitation of land, pollution, and climate change are driving the destruction and degradation of these ecosystems at an alarming rate. Achieving SDG 15 is therefore essential not just for the environment, but also for human wellbeing and the sustainable future of the planet.

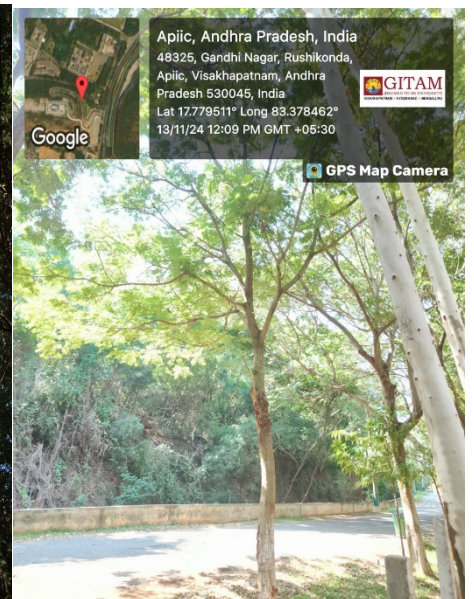
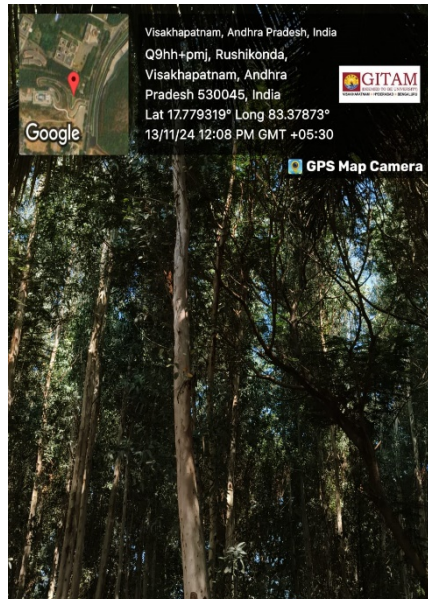
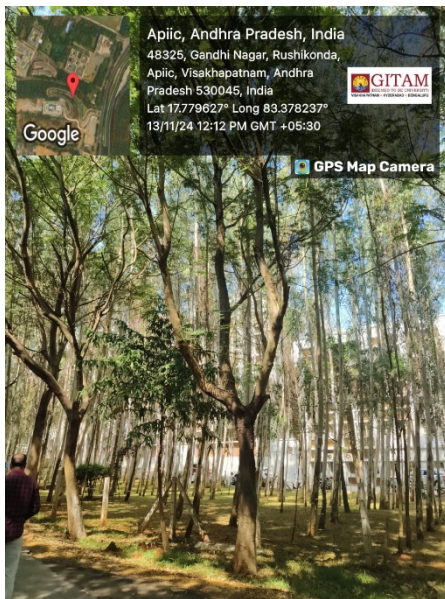
Research:

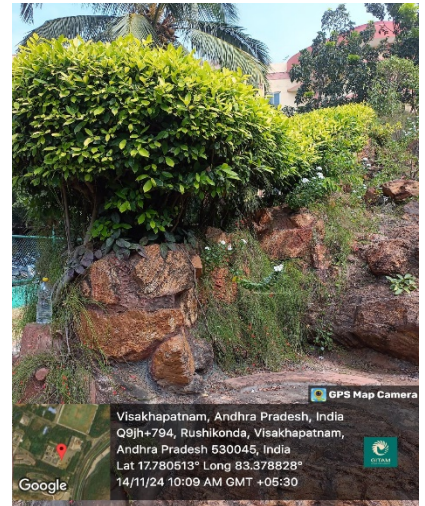
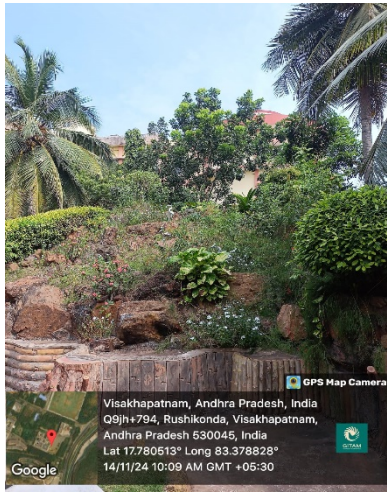
- ☞ Research Publications in Scopus Index: GITAM has a relative activity index of 0.55 in its Scopus indexed publications relating to SDG15 during the reference period of 2021-2023.
- ☞ Projects:
 1. Dr. Nasim Akhtar: Studies on micropropagation of Red Sandalwood (*Pterocarpus santalinus* L.) through induction of somatic embryogenesis. Red Sandalwood is a valuable species, and this research aims to promote its sustainable cultivation, conserving this resource, especially given its endangered status. The development of effective micropropagation techniques supports biodiversity conservation and ecosystem restoration.
 2. Dr. R Gyana Prasuna: Isolation and Identification of Potential Cyanobacterial Biofertilizers from Coastal Rice Fields. The use of biofertilizers can help reduce the carbon footprint of agriculture, as synthetic fertilizers are associated with greenhouse gas emissions.

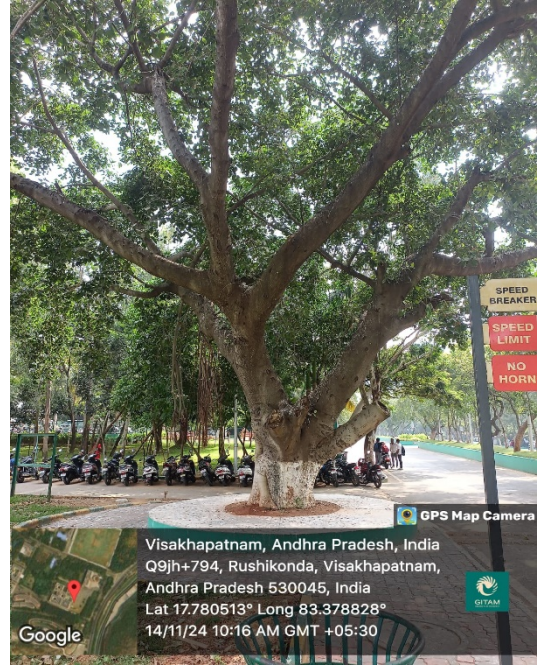
Progress:

- ☞ GITAM has 88% of Open Space out of its total area 1033283 Sq. M
- ☞ Total forest area of the campus is 2,16,989.43 Sq.M
- ☞ Total Planted vegetation area for all campuses : 5,94,311 Sq.M

GITAM's commitment to ecological health reflects in the near complete greenery at Visakhapatnam Campus. A variety of trees, especially Artocarpus, Mangifera, Anacardium, Pongamia, Azadirachta, Ficus and Syzium, known for their high wood density and consequent enhanced carbon sequestration potential stand testimony to GITAM's concern for ecological health.







Key initiatives:

- ☞ GITAM has a dedicated horticulture department which maintains the greenery in the campus by following sustainable and contributing the existing ecosystem maintenance.

- ☞ GITAM has conducted a study of the existing plants, documented the details with their scientific name, family, origin, species, type, uses, medicinal values, specific features location in the campus etc. They are all QR coded and documented.

Example:



- ☞ GITAM is using technology to protect the rare and oldest trees by geo-tagged them. The information about that is stored and passed on to the next generations.

Engagement:

- ☞ GITAM Students started ‘Agrow club’ and the horticulture department tend the garden and grow various vegetables and fruits by adopting the organic farming methods. This initiative inspires students to take an interest in the origins of food, make better food choices and form an appreciation for the farming community. The initiative is also supported by the Center for Health and Wellness Initiative at GITAM, which is working on innovations in food science, nutrition, and allied areas. The GITAM garden will be used as a test bed for evaluating natural plant growth factors.

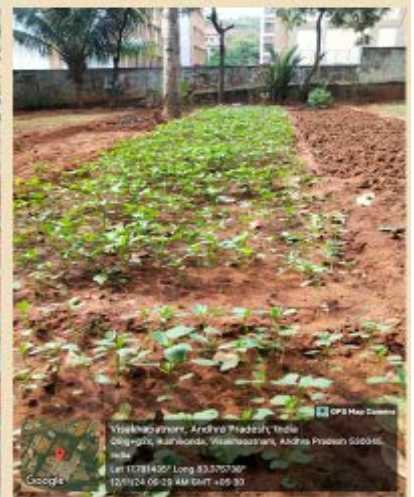


School or Dept. Name here



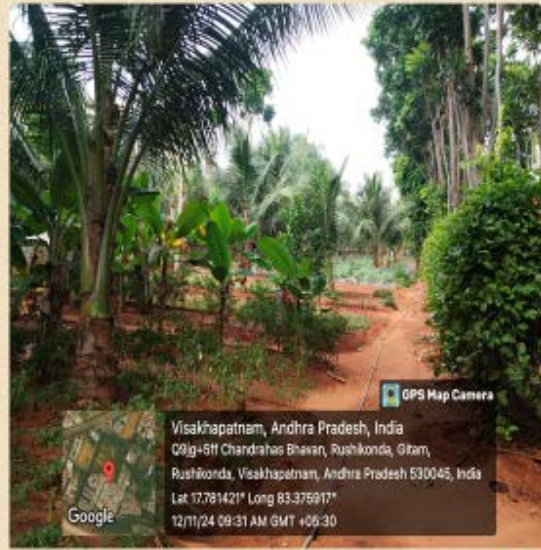


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Produce from the organic garden / farm is used for food preparation

11/11/22
 (gour chukudi - 12 1/2 (Rs 26/-)
 10 kg (Rs 100/-)
 3 kg (Rs 100/-)
 5 kg (Rs 26/-)
 3 1/2 kg (Rs 100/-)
 12 kg (Rs 26/-)
 D. Bhatti
 500368

gour chukudi
 kotimira

15/11/22 ladyfinger - 8 kg (Rs 31/-)
 G. Jagadeesh

21/11/22 Brinjal - 2 1/4 kg (Rs 4/-)
 Spinach - 0.400 gm (Rs 100/-)
 Chester Beans - 1 1/2 kg (Rs 24/-)
 Green chilly - 1/4 kg (Rs 40/-)
 D. Bhatti
 500368

Kakula sadan USP
 12/10/22 Thotakura - 2 kg (Rs 30/-)
 Brinjal white - 15 kg (Rs 25/-)
 18/10/22 white Brinjal - 20 kg (mp) 50140.
 (Rs 25/-)
 27/10/22 lady finger - 16 1/2 kg (Rs 20/-)
 white Brinjal - 18 1/4 kg (Rs 45/-) 500368
 D. Bhatti
 500368

28/10/22 chukka kura (chickpeas) - 16 1/2 kg (Rs 50/-)
 Gongera - 11 kg (Rs 40/-) D. Bhatti
 500368

1/11/22 lady finger - 7 1/2 kg (Rs 26/-)
 Brinjal - 6 3/4 kg (Rs 38/-) D. Bhatti
 500368

3/11/22 Beans - 3.750 gm (Rs 26/-) B. Gopal
 Beans - 3 1/2 kg (Gour chukudi) (Rs 40/-)

8/11/22 lady finger - 11 1/2 kg (Rs 23/-)
 D. Bhatti
 500368

Policies on Waste disposal:

GITAM has adopted best practices and takes the responsibility of disposal of waste, minimizing the waste generation that prevents pollution to the ecology and harms the humans and living species on the earth.

- ☞ It tracks and measures all kinds of waste generated viz., organic, chemical, solid, biomedical, e-waste, food-waste, waste water etc.
- ☞ It has entered into the annual contracts with various authorized organized for the sustainable and scientific disposal of the waste generated.
- ☞ It has its own systems to recycle the waste wherever possible for its best reuse like STP plants for waste water treatment and reuse it for gardening purpose.
- ☞ The brown and green waste is converted into compost, used as manure in the organic garden.

Community Outreach:

GITAM having received a grant of INR 40 lakhs from the Science for Equity Empowerment and Development (SEED) Division under the Department of Science and Technology (Government of India), tackles the dual issues of food waste and availability of quality agricultural compost for farming. It benefits the farmers for maintaining sustainable land management for agriculture by reducing the use of synthetic fertilizers. The project uses leftover food, highly nutrient-dense in proteins, lipids, carbs, and other macro and microelements, and converts it into fertilizer. The food waste is sent to an organic digestion machine, which converts it into compost within 24 hours. Then, the compost is turned into pellets that are used to enhance the nutritional content of the farming land.

GITAM collaborated with local farmer associations, created awareness among more than 250 farmers and trained 100 farmers in the production of compost pellets.



<https://thecsr universe.com/articles/gitam-s-homegrown-compost-pelletization-technique-empowers-local-farmers-in-andhra#:~:text=The%20project%20uses%20leftover%20food,into%20compost%20>

[within%2024%20hours.](#)

Way forward:

GITAM is committed to SDG 15 supporting sustainable food systems, maintain vegetation to protect land desertification and land degradation and mitigating climate change there by safeguarding ecosystem and biodiversity. GITAM will continue its efforts further with more technology usage to achieve this goal.