



MANIPAL UNIVERSITY
JAIPUR



Manipal University Jaipur Collaborates with Governments to Ensure Water Security

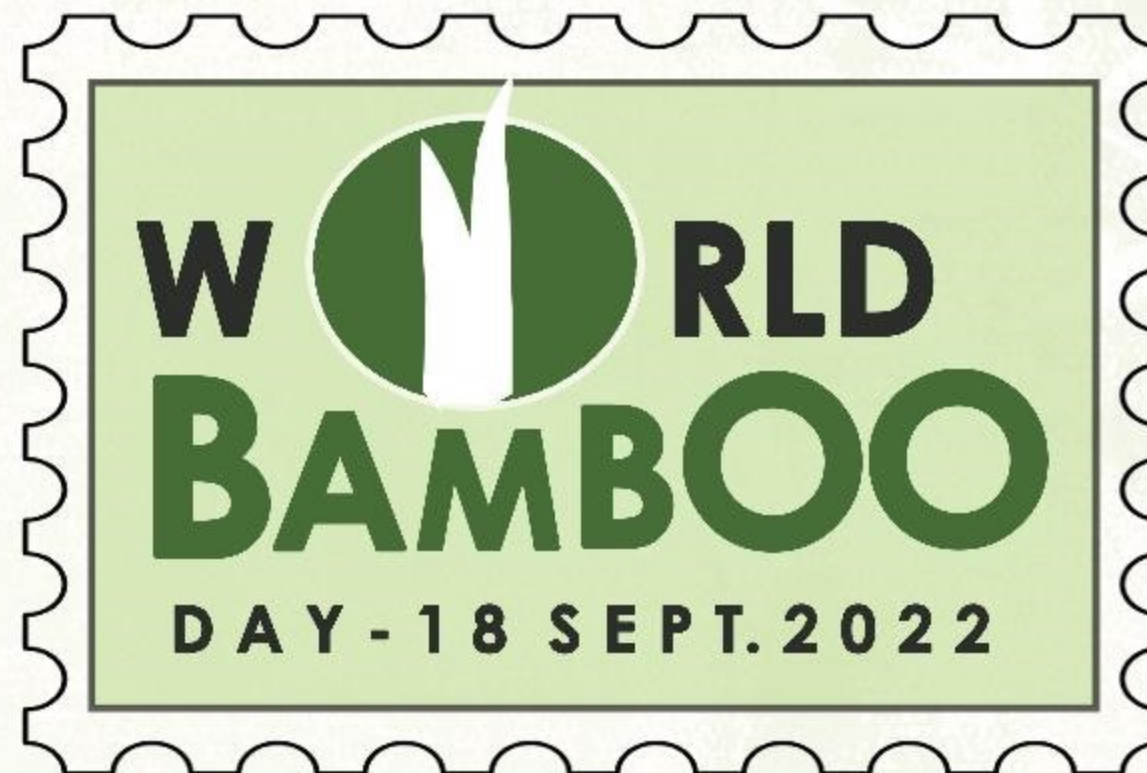
Water security is a global concern that transcends borders and demands cooperative efforts at various levels of governance. Water is a fundamental resource for all living organisms, ecosystems, and human societies. Ensuring water security is not just about having access to clean and safe drinking water but also about managing water resources sustainably. The impacts of water scarcity and contamination can be devastating, leading to health problems, agricultural disruptions, and even conflicts.

Manipal University Jaipur works with municipal and local governments to address water security issues. This involves research collaborations to develop innovative water treatment methods or the implementation of smart water management systems. For instance, a university might partner with a city government to design and deploy sensors that monitor water quality in real-time. On a regional scale, Manipal University Jaipur fosters cooperation among several local governments. It facilitates discussions and research projects to address regional water challenges, such as shared river basins or transboundary water resources. This cooperative approach can lead to agreements that promote equitable water allocation and reduce disputes among regions. National governments often look to universities for expertise in water management and policy development. Manipal University Jaipur collaborates with national agencies to conduct comprehensive assessments of water resources, draft legislation, and develop strategies for disaster preparedness and response. These partnerships can contribute to the creation of robust water security plans.

Water security is a complex challenge that necessitates collaboration across different levels of governance. Manipal University Jaipur, with its research capabilities, expertise, and innovative solutions, can play a pivotal role in partnering with local, regional, national, and global governments to ensure the sustainable management of water resources. By forging these alliances, Manipal University Jaipur moves closer to a future where every individual and community has access to clean and safe water, safeguarding the well-being of our planet and its inhabitants.



SEMINAR ON



KEYNOTE SPEAKERS



Er. Sanjeev Karpe
Founder & Director with Konkan
Bamboo & Cane Development
Centre (KONBAC)

BAMBOO VALUE ADDITION



Mr. Pasha Patel
Governing Council Member
Bureau of Indian Standards
(BIS) Govt. of India

BAMBOO PLANTATION

ORGANISED BY
FACULTY OF DESIGN

MANIPAL UNIVERSITY JAIPUR

VENUE : Sharda Pai Auditorium

TIME : 10:30 am - 12:30 pm

DATE : 18 September 2022

Faculty Coordinator
Ar. Sanjeev Pareek
+91 9783403061



SOCIETAL PROJECT

on

Performance Appraisal of Low-cost Community Based Onsite Sanitation Systems in Ambient Environment of Jaipur City

(Financially supported by DST Rajasthan under the scheme of Swachh Bharat Mission)
Project file no. F8 (9)DST/SSD/2016/Part-1/3809

The present study investigates the efficiency and feasibility of an anaerobic onsite sanitation system for the treatment of household wastewater in actual field condition. The system consisted of a newly configured system consisting of two anaerobic bio-reactor within a single unit. The field-scale system is installed in Dehmi Kalan village in the vicinity of the Manipal University Jaipur. The feasibility of the system is identified on the basis of pollutant removal efficiency. In order to assess the efficiency, the system is feed with actual onsite wastewater generated from household activity with large fluctuations in the flow throughout a day. The finding reveal that the system achieved comparatively much higher removal efficiency than the existing conventional septic tank (CST) for COD, BOD and TSS as 90.2, 78.4 and 83.2% respectively, which ranged between 30 and 50% for CST for all the parameters. Thermotolerant coliform removal was also quite good at about 2.84 logs. Therefore, the present system can be a promising alternative to the CST for the treatment of domestic wastewater, particularly in the rural areas of the developing countries.

A. Lab-scale reactor in actual field condition:





B. Pilot-scale reactor in Dehmi Kalan Village:







Figure: Quality of wastewater after treatment using anaerobic treatment plant

Based on the performance analysis, the system is showing substantially higher pollutant removal efficiency with a better-quality effluent. The quality of the treated wastewater is such that the household owner is recycling and reusing it in gardening purpose. The present system can be installed at a low cost and in short period of time. Thus, the present system with a simple design, low-cost involvement and electricity-free operability has a significant potential to be considered as an alternative to the conventional septic tank for the treatment of domestic wastewater in the non-sewered rural and peri-urban areas of the developing countries like India.