



Department of Water Resources Development & Management

4th A N Khosla Endowment Lecture

in the memory of Padma Vibhushan Dr. A N Khosla

Date: January 19, 2023; Time: 11:00 AM at O.P Jain Auditorium, IIT Roorkee



(1892-1984)

- * Founder Director of Water Resources Development & Training Centre (WRDTC)
- * First Indian Vice Chancellor of University of Roorkee
- * Founder Chairman of Central Water Commission (CWC), Central Water & Power Research Station (CWPRS)
- * Instrumental in Indus Treaty, Construction of Bhakra and Hirakund Dams.
- * Padma Vibhushan (1977) and Padma Bhushan (1954)
- * 14th Governor of Odisha

Promotion of Water Harvesting and Voluntary Afforestation through Traditional Indian Knowledge System

Climate change is causing an increase in the precipitation intensity and a decrease in the number of annual rainy days as well as the average storm duration. The role of vegetation in general and forests in particular, in maintaining ecological balance is well established. Nevertheless, over the past several decades, tree cover is continuously decreasing in substantial parts of the world, mainly due to deforestation caused by human beings. Simultaneously, there is also a steady increase in greenhouse gases in general and carbon dioxide in particular. The main reasons for this phenomenon are the emissions from fossil fuel combustion and/or aerosol generation and/or cement manufacturing. Things have reached such an alarming level wherein the Himalayan Kingdom of Bhutan is the only carbon-negative nation in the world. Even some of the best management practices (BMPs) adopted in Arctic Norway/Alpine Switzerland/ Mediterranean Israel/ Equatorially located Singapore have not helped them to transform into carbon-negative nations so far. Based on the traditional Indian Knowledge System (IKS) on precipitation, it should definitely be possible to combat climate change, at least sporadically, to create additional carbon-neutral and/or carbon-negative nations/ regions.

Brief Bio of Prof. Venkappayya R Desai, Director, IIT Dharwad and Former Dean of Faculty of Engg. and Architecture (FoEA), IIT Kharagpur



Prof. Venkappayya R Desai is an Academician with 33+ years of teaching experience, out of which 27+ years have been at the Indian Institute of Tech, Kharagpur, West Bengal. He obtained his BE (Civil) degree in 1983 from BVB Engg. College, Hubballi, Karnataka; M Tech (HWRE) degree in 1986 from Karnataka Regional Engineering College, Surathkal; Ph.D. in Civil Engineering in 1993 from Clemson University in S Carolina, USA. At the National level, he is now serving as a NAAC Academic Advisory Committee member, as an Executive Committee member for AICTE in New Delhi and Visweswaraya Technological University in Belagavi, Karnataka; as a Board of Governors Member for NITTTR, Kolkata, West Bengal, and IISER, Thiruvananthapuram, Kerala, to name a few.



**DEPARTMENT OF WATER RESOURCES DEVELOPMENT & MANAGEMENT
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

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*Director, IIT Dharwad and
Former Dean of Faculty of Engg. &
Architecture (FoEA), IIT Kharagpur*

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Voluntary Afforestation through
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Thursday
11:00 hrs (IST)

Venue: O.P Jain Auditorium, IIT Roorkee