



Ministry of
**Electronics &
Information Technology**
Government of India



Digital India
Power To Empower

NeGD
National e-Governance Division

PRESS NOTE

Digital India Ask Our Experts

- **A Conversation on Protecting Citizens from Floods and Bank Erosion in the Brahmaputra Valley**
- **Episode 48 explores scientific and technology-driven approaches around water management**
- **Discussion included flood forecasting, erosion control, ecological conservation and modern river management practices**

New Delhi: The 48th episode of *Digital India Ask Our Experts* featured an insightful discussion on Protecting Citizens from Floods and Bank Erosion in the Brahmaputra Valley, highlighting the role of science, technology, data-driven planning and community-focused interventions in managing one of India's most dynamic river systems.

The episode featured Dr. Ranbir Singh, Chairman of the Brahmaputra Board, who shared insights into the ongoing efforts being undertaken by the Board to strengthen flood and erosion management across the Brahmaputra Valley and the wider North-East region through scientific planning, technological innovation and sustainable interventions. Watch the episode at <https://youtu.be/q1tSoOkIr3w?si=4U4H-W i3bNTM KX>



Opening the discussion, Dr. Singh explained that the Brahmaputra Board adopts an Integrated River Basin Management approach while preparing comprehensive master plans for the region. These plans not only address recurring flood and erosion challenges but also identify opportunities for sustainable

development through hydroelectric power, irrigation and inland navigation. The discussion highlighted how modern technologies are transforming flood preparedness and response. The expert elaborated on the use of satellite imagery, field surveys and hydraulic modelling to study river behaviour, predict flood patterns and identify vulnerable locations before extreme events occur.

Addressing the issue of river bank erosion, a major challenge in the Brahmaputra Valley, Dr. Singh shared that scientific studies are being undertaken in collaboration with IIT Guwahati to better understand erosion patterns along the main stem of the Brahmaputra river and identify highly vulnerable stretches for targeted interventions. Focussing on citizen-centric flood preparedness systems, he informed viewers about real-time flood monitoring and alert dissemination mechanisms supported through the Flood Watch application developed by the Central Water Commission. Alerts are further amplified through SMS services, television and radio communication channels to ensure timely dissemination of information to citizens.

Discussing on-ground interventions, the experts outlined structural measures being implemented to reduce flood and erosion risks, including embankments, river bank strengthening through revetments, geo-bags and the deployment of porcupine structures designed to redirect river flow away from vulnerable settlements. Ecological dimension of flood management was also emphasised. Dr. Singh highlighted the importance of protecting forest cover and reducing practices that accelerate soil erosion and sediment accumulation, noting that sustainable land-use practices remain essential for long-term flood resilience.

Another key aspect discussed was flood plain zoning, a non-structural approach that regulates land use based on flood vulnerability. The episode highlighted examples from several North-Eastern states that have adopted zoning measures to support safer development planning. About the governance framework supporting these initiatives, the expert noted that the Brahmaputra Board functions under a collaborative review mechanism involving the Union Ministry of Jal Shakti and state leadership from across the North-East region.

Concluding the discussion, Dr. Singh shared how technological modernisation is strengthening project implementation and river management through digital project monitoring platforms and specialised hydraulic modelling tools such as the Brahma Model.

The episode underscored the importance of combining engineering solutions, scientific research, environmental stewardship and citizen awareness to build resilient communities and strengthen protection against floods and river bank erosion in the Brahmaputra Valley.

The Digital India Ask Our Experts is a live interactive programme streamed on Digital India's YouTube channel. For more information on upcoming episodes and Digital India initiatives, visit www.digitalindia.gov.in and www.negd.gov.in.