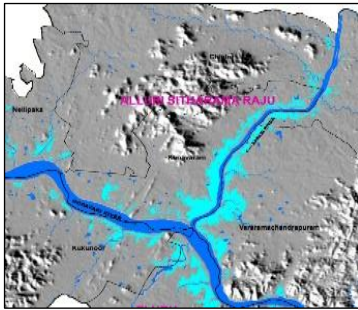




**Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation**



Webinar on
‘Implementation of Inundation Forecasting and
Integrated Reservoir Operation’
07-08 July 2025



Organized by
NATIONAL WATER ACADEMY
CENTRAL WATER COMMISSION, PUNE

INTRODUCTION

The Central Water Commission (CWC) is the nodal agency responsible for flood forecasting and early warning in India. It issues short-range flood forecasts based on gauge-to-gauge correlation and medium-range advisory forecasts using mathematical models. Dissemination of these forecasts is carried out through dedicated web-portals, social media, flood bulletins, emails etc.

Inundation forecasting goes beyond traditional water level or discharge forecasts by providing spatial information on the areas likely to be submerged during a flood event. This enables local authorities to plan targeted evacuations, allocate resources more efficiently, and implement effective response measures to mitigate flood impacts. As is well known, the primary responsibility for flood disaster management lies with the respective State Governments, while the Central Government plays a supportive role by supplementing their efforts.

In recent years, CWC has taken significant steps toward the development of inundation forecasting systems. These efforts involve the use of high-resolution Digital Elevation Models (DEMs), supercomputing infrastructure through a mathematical modeling approach or library-based data-driven approach to generate spatial flood forecasts.

CWC is now rolling out inundation forecasting for the Godavari, Tapi and Mahanadi basins during the 2025 monsoon season. The inundation models have been developed in association with the National Remote Sensing Centre (NRSC) for Godavari and Tapi basins and the Centre for Development of Advanced Computing (C-DAC) for the Mahanadi basin. C-DAC has also developed a unified web portal offering user-friendly access to the predicted flood inundation outputs for these 3 basins.

CWC has also initiated the development of library-based data driven inundation modelling to enhance flood forecasting capabilities in Brahmaputra and Ganga basins.

Further, Integrated Operation of Reservoirs within a river basin can reduce downstream flood risks while simultaneously enhancing water conservation and utilization. Accordingly, CWC is developing a Decision Support System for near real-time Integrated Reservoir Operation System for Ganga Basin covering 13 major reservoirs.

OBJECTIVE AND TARGET GROUP OF THE WEBINAR

The objective of conducting this 2-day webinar is to disseminate and sensitize various stakeholders about the rollout of flood inundation forecasting for Godavari, Tapi and Mahanadi basins and other initiatives like integrated reservoir operation in the Ganga basin from this monsoon season.

The webinar is intended to benefit all stakeholders from the Godavari, Tapi, Mahanadi and Ganga basin States, and the State of Assam including officers from concerned Centre/State Government Departments, State Disaster Management and District Disaster Management Authorities, Dam Authorities, and other stakeholders.

PROGRAM CONTENTS

The program will comprise of online sessions (through Cisco Webex platform) of about 1.5-hour duration each and will cover the following topics:

- Demonstration on utilization of unified portal for dissemination of inundation forecasts
- Spatial Flood Early Warning System for Godavari & Tapi Basins
- Library based inundation forecasting
- Integrated Reservoir Operation

REGISTRATION

Nominated/Interested participants may fill in the Google registration form on or before 06.07.2025
<https://forms.gle/3ixNSVWEYpRW1KRV9>

Registered participants can join the webinar sessions on both days using the following link:

<https://nationalwater.webex.com/nationalwater/j.php?MTID=me838bde353088cc26adbe0b8da55986>

CONTACT

For sending nominations or for any information on this program, please contact:

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**NATIONAL WATER ACADEMY
CENTRAL WATER COMMISSION, PUNE**

Webinar on

'Implementation of Inundation Forecasting and Integrated Reservoir Operation'

Duration: (7th to 8th July 2025)

Tentative Session Plan

Date	Session	Topic	Faculty to be nominated by
Day-1 (07.07.2025) Monday	I: 1100-1215 Hrs Q&A: 1215-1230 Hrs	Demonstration on utilization of unified portal for dissemination of inundation forecasts	CDAC
	II: 1500-1615 Hrs Q&A: 1615-1630 Hrs	Spatial Flood Early Warning System for Godavari & Tapi Basin	NRSC
Day-2 (08.07.2025) Tuesday	III: 1100-1215 Hrs Q&A: 1215-1230 Hrs	Library based inundation forecasting	FCA-I/II Directorate, CWC
	IV: 1500-1615 Hrs Q&A: 1615-1630 Hrs	Integrated Reservoir Operation	FFM Directorate, CWC