



**Three Days National-Level
Training Programme on**

"Drought Management and Mitigation"

**Duration:
25th to 27th March 2026**

**Venue:
NIDM, Southern Campus,
Vijayawada , Andhra Pradesh**



**भारत सरकार
GOVERNMENT
OF INDIA**



Background

Drought is one of the most complex, slow-onset natural hazards that affects millions of people in India, threatening food security, water availability, and rural livelihoods. Unlike sudden-onset disasters, drought evolves over time, making its onset and end difficult to determine. India's diverse Agro-climatic conditions make it highly vulnerable to drought; approximately 68% of the country's cropped area is prone to drought to varying degrees.



Historically, drought management in India was relief-centric. However, with the introduction of the Manual for Drought Management in 2009, 2016 and updation 2020 there has been a paradigm shift towards a management-centric approach. This manual provides a standardized framework for declaring drought based on scientific indices and mandates a proactive strategy involving monitoring, early warning, and mitigation.

In the wake of changing climate patterns, erratic monsoons, and increasing water stress, it is imperative to equip administrators and stakeholders with the technical knowledge required to implement the guidelines of the 2016 Manual effectively.

Rationale

While the Manual for Drought Management 2016 provides a robust framework, its effective implementation at the state and district levels requires specific technical expertise. Officials often face challenges in interpreting complex indices like the Standardized Precipitation Index (SPI), Vegetation Condition Index (VCI), and hydrological parameters.

Furthermore, the declaration of drought involves a strict stepwise process—from mandatory triggers to impact assessment and ground truthing. A lack of clarity on these protocols can lead to delays in declaration and subsequent relief funding from the State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF).

Therefore, this training programme is designed to bridge the gap between policy and practice. It aims to demystify the technical aspects of the 2016 Manual and foster a deeper understanding of the institutional mechanisms required for effective drought risk management.

Aim of the Course

To build the capacity of government officials and key stakeholders in understanding the nuances of the Manual for Drought Management 2016, enabling them to effectively monitor, declare, and manage drought situations through a scientific and proactive approach.

Objectives

1. To provide comprehensive knowledge of the Drought Manual 2016, focusing on the shift from relief to risk management.
2. To train participants in the use of scientific monitoring tools, including meteorological, hydrological, and remote sensing indices (SPI, NDVI, NDWI).
3. To explain the protocol for drought declaration, including the "Step-wise Matrix" approach and timelines for Kharif and Rabi seasons.
4. To discuss financial mechanisms (SDRF/NDRF) and the preparation of Memorandums for central assistance.
5. To explore long-term mitigation strategies, including watershed management, community resilience, and convergence with schemes like MGNREGS.

Methodology

- 1. Thematic Lectures:** Delivered by subject matter experts and NIDM faculty.
- 2. Case Studies:** Analysis of past drought declarations and management in different states.
- 3. Table-Top Exercises (TTX):** Simulation exercises using hypothetical data (Rainfall, NDVI) to practice the drought declaration process.
- 4. Group Discussions:** Peer learning on district-level challenges and solutions.

Course Content

- 1. Fundamentals of Disaster Management:** DM concepts, hazards in India, and the DM cycle.
- 2. Understanding Drought in Context:** Dynamics, monsoon variability, classification, and impact assessment.
- 3. Drought Manual 2016 (Monitoring):** Management-centric approach, parameters, and remote sensing (MNCFC, NADAMS).
- 4. Technical Indices:** Interpretation of SPI, NDVI, NDWI, and satellite imagery.
- 5. The Drought Declaration Process:** Declaration matrix, mandatory/impact indicators, and ground truthing.
- 6. Crisis Management & Relief:** Discussion on Crisis Management Plan, water transport, fodder banks, and food security.
- 7. Funding Mechanisms:** Procedures for SDRF & NDRF funding.
- 8. Mitigation Strategies:** Water harvesting, micro-irrigation, and convergence with MGNREGS.
- 9. Technology & Innovation:** Decision support systems, India-WRIS, and VEDAS portal.
- 10. Practical Simulation:** Table-top exercises (TTX) on drought declaration and response planning.
- 11. Long-term Strategy:** Community-based disaster management and resilience building

Target Group

The target group for this training programme comprises officials from Central ministries, State Disaster Management Authorities (SDMAs) and District Disaster Management Authorities (DDMAs), along with officers from Departments of Agriculture, Revenue, Rural Development, Water Resources, and Animal Husbandry. The programme also invites representatives from Scientific Institutions (such as State Remote Sensing Centres), State and Central Agricultural Universities, working in the water and agriculture sectors



Duration & Venue

Duration: 3 Days

Venue: NIDM South Campus, Vijayawada, Andhra Pradesh

Expected Outcomes

1. Interpret the technical indices mandated by the Drought Manual 2016 for monitoring.
2. Execute the step-by-step process for drought declaration with adherence to strict timelines.
3. Formulate effective Crisis Management Plans (CMP) for water and fodder security.
4. Draft scientifically backed memorandums for seeking financial assistance.
5. Develop district-level action plans for long-term drought mitigation and resilience.

Registration & Logistics

1. **Nomination:** Nominations are invited from relevant departments. Confirmed participants will receive a formal invitation letter.
2. **Registration:** Physical registration will be conducted on Day 1 at the venue.
3. **Accommodation:** Boarding and lodging will be provided at the NIDM Hostel for outstation participants. Travel arrangement shall be borne by nominating institution,
4. **Fee:** There is no course fee for this training programme.

Schedule

Day-1- 25th March 2026

09:30-10:00	Registration		
10:00-11:00	Inaugural Session Chief Guest: Dr. R. Sarada Jayalakshmi Devi, Hon'ble Vice-Chancellor, Acharya N G Ranga Agricultural University, Guntur, Andhra Pradesh		
11:00-11:15	Group Photo and High Tea		
Time	Session	Content	Resource Person
11:15 – 12:30	Session 1: Fundamentals of Disaster Management	DM concepts, hazards in India, DM cycle	NIDM Faculty
12:30 – 13:30	Session 2: Understanding Drought in the Indian Context	Drought Dynamics, Monsoon Variability, El Niño, Drought Classification (Meteorological, Hydrological, Agricultural, Socio-economic), Impact Assessment, Water Security.	Shri. Manjeet Singh
14:30 – 15:45	Session 3: Drought Manual 2016 – Monitoring & Early Warning	Management-centric Approach, Monitoring Parameters, Rainfall Deviation, Reservoir Storage, Sowing Progression, Remote Sensing, MNCFC, NADAMS.	Shri. Manjeet Singh
16:00 – 17:15	Session 4: Drought Indices & Technical Standards	Standardized Precipitation Index (SPI), Vegetation Index (NDVI), Water Index (NDWI), Drought Bulletins, Satellite Imagery Interpretation.	NIDM Faculty

Schedule

Day-2 26th March 2026

Time	Session	Content	Resource Person
09:30 – 11:00	Session 5: The Drought Declaration Process	Declaration Matrix, Mandatory Indicators, Impact Indicators, Ground Truthing,	Shri. Manjeet Singh
11:15 – 12:45	Session 6: Crisis Management & Relief Measures	Crisis Management Plan (CMP), Water Transport, Fodder Banks, Cattle Camps, Food Security (PDS, Mid-day Meals).	Shri. Manjeet Singh
14:00 – 15:30	Session 7: Funding Mechanism (SDRF & NDRF)	State Disaster Response Fund (SDRF), National Disaster Response Fund (NDRF), Funding Mechanisms,	Shri Rohit Kumar
15:45 – 17:15	Session 8: Drought Mitigation Strategies	Water Harvesting, Check Dams, Farm Ponds, Drought-resistant Varieties, Micro-irrigation, MGNREGA Convergence, Drought-proofing Infrastructure.	NIDM Faculty/ Shri. Manjeet Singh

Day-3 27th March 2026

09:30 – 11:00	Session 9: Technology & Innovation in Drought Management	Decision Support Systems, India-WRIS, VEDAS Portal.	NIDM Faculty/ Shri. Manjeet Singh
11:15 – 12:45	Session 10: Table-Top Exercise (TTX)	Simulation, Data Analysis (Rainfall, NDVI, Reservoir Levels), Drought Declaration Assessment, Mock Response Planning.	NIDM Faculty/ Shri. Manjeet Singh
14:00 – 15:30	Session 11: Long-term Strategy & Community Resilience	Community Based Disaster Management (CBDM), Local Bodies, Watershed Management, Policy Gaps, Resilience Building.	Shri Rohit Kumar /Shri. Amarjeet Kumar
15:30 – 16:30	Valedictory Session	Feedback, certificates, closing remarks	-

Programme Team



Shri Madhup Vyas, IAS

*Executive Director, NIDM
Patron*



Col. Palagani Srinivasulu Reddy

*Joint Director, NIDM, South Campus
Co- Patron*



Shri. Manjeet Singh

*Assistant Professor
Course Coordinator*



Shri Rohit Kumar

*Assistant Professor
Co Course Coordinator*



Shri Amarjeet Kumar

*Assistant Professor
Co Course Coordinator*



Shri Thakur Deobardhan Kinwar

*Librarian
Programme Team*