



सत्यमेव जयते

Government of India  
Ministry of Jal Shakti  
Department of Water Resources,  
River Development and Ganga Rejuvenation  
Central Water Commission  
National Water Academy, Pune



Annual Report  
2023-24



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**ANNUAL REPORT  
2023-24**

**National Water Academy  
Pune**



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## FOREWORD



It is with great pleasure that I present the Annual Report of the National Water Academy (NWA) for the year 2023-24. This report encapsulates the achievements, initiatives, and advancements made by NWA in its continued pursuit of excellence in capacity building and knowledge dissemination in the water resources sector. The past year has been marked by significant milestones in training, research, and collaboration. NWA has successfully conducted numerous training programs, workshops, and seminars covering a wide array of topics, including water conservation, climate resilience, dam safety, river basin management, and the application of emerging technologies such as remote sensing, GIS, and artificial intelligence in water resource management. These programs

have contributed immensely to building the technical capacity of professionals from government organizations, academia, and industry.

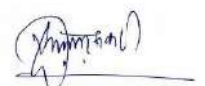
Recognizing the growing challenges posed by climate change and increasing water demand, NWA has also strengthened its focus on sustainable water management practices and integrated water resource planning. Our collaborations with national and international organizations have facilitated knowledge exchange and the adoption of best practices in the sector.

A key highlight of the year has been the expansion of our digital learning initiatives. With the successful implementation of online and hybrid training modules, NWA has been able to reach a broader audience, breaking geographical barriers and ensuring continuous learning for water professionals across the country. In addition to training and capacity-building efforts, NWA has actively engaged in policy discussions, providing valuable insights and recommendations to shape the future of water resource management in India. We have also enhanced our research and development initiatives, fostering innovation through interdisciplinary approaches and advanced analytical tools.

Further, NWA has made notable strides in public outreach and awareness campaigns, engaging with local communities, NGOs, and educational institutions to promote water conservation and sustainable practices. These initiatives have reinforced our commitment to fostering a water-conscious society. As we move forward, NWA remains committed to its vision of being a premier institution for capacity building and research in water resources. We will continue to innovate, adapt, and expand our efforts to address the evolving needs of the sector and contribute meaningfully to national water security and sustainable development.

I extend my sincere gratitude to the Ministry of Jal Shakti, Central Water Commission, and all stakeholders for their unwavering support and encouragement. I also commend the dedicated efforts of the NWA team in making this year a success.

We look forward to another year of impactful contributions to the water resources sector.



**D. S. Chaskar**  
Chief Engineer & Head

## Executive Summary

The Annual Report 2023-24 of the National Water Academy (NWA), Pune, highlights its significant achievements in training, capacity building, research, and infrastructure development in the water resources sector. During the year, NWA successfully conducted 101 training programs, benefitting 9313 participants, marking the highest training output in its history. These programs encompassed cadre training, technical training, faculty development, and mass awareness initiatives, catering to stakeholders across central and state government organizations, PSUs, academic institutions, and international participants. The Key Achievements are

- **Training and Capacity Building:** A record 101 training programs were conducted, covering 121 training weeks, with participation from 9313 officers from diverse sectors.
- **Training Need Assessment (TNA) Workshop:** A first-of-its-kind national-level workshop with 176 participants was organized to assess the evolving training requirements of stakeholders.
- **Specialized & Thematic Training Initiatives:** Programs were designed on dam safety, flood management, water governance, climate resilience, emerging technologies (remote sensing, GIS, AI, numerical modeling), and policy frameworks for sustainable water management.
- **Regional & State-Specific Programs:** Customized training sessions were conducted for states such as North Eastern states, Ladakh, Bihar, West Bengal, and Telangana, addressing their unique water resource challenges.
- **Digital Learning & Hybrid Training:** Expansion of MOODLE LMS-based online and hybrid training programs, ensuring wider accessibility and flexibility for participants.
- **Mass Awareness & Outreach:** Special programs for school teachers, NCC cadets, NGOs, media professionals, and local communities to promote water conservation and sustainable practices.
- **National & International Collaborations:** Strengthened partnerships with WMO, IIMs, IITs, CWC, and state training institutes, fostering global and national knowledge exchange.

### Infrastructure & Institutional Strengthening

- **Construction of Underpass for Campus Connectivity:** The much-awaited underpass across Sinhagad Road, connecting the office complex and residential complex, has been successfully realized, ensuring safer and seamless movement within the NWA campus.

- Faculty Development & Capacity Enhancement: Special training programs were organized to strengthen the expertise of trainers and professionals in the water sector.
- Upgraded Training Facilities: Continuous enhancement of classrooms, laboratories, and digital learning resources to improve the quality of training and knowledge dissemination.

With an unprecedented participation of 3982 professionals from across all Indian states and union territories, NWA has reinforced its position as a premier national institution for capacity building in the water sector. Moving forward, NWA remains committed to expanding its training programs, leveraging modern technology, and strengthening partnerships to address the evolving challenges of water resource development and management

*"Leadership and learning are indispensable to each other." John F. Kennedy*

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## Key Achievements and Highlights of the year

### A. Physical Progress of training activities

NWA's achievement for 2023-24 in terms of number of trainings and training weeks is **highest** in any year till date. This output is achieved in spite of vacancies at faculty and support staff level. The achievement of NWA for 2023-24 vis-a-vis average of last 15 years is as given below:

Achievement of NWA	Training Programs/Events	Training Weeks	Officers trained
<b>Annual Average of last 15 years (2008-09 to 2022-23)</b>	42	67	3003
<b>Achievement of 2023-24</b>	<b>101</b>	<b>121</b>	<b>9313</b>

- B. **Workshop on Training Need Assessment:** For the first time, a one-day National Level "Training Need Assessment" Workshop to assess the training needs of stakeholders of Water Resources Sector was conducted in Delhi. 176 participants from Central, State Organisations, WALMIs/IMTIs, academic institutions, NGOs etc., attended the Workshop. Based on the inputs received during the workshop from different stakeholders, a comprehensive TNA Report was prepared and submitted to the Ministry.
- C. **Cadre Training Programs:** Cadre Training Programs for CWES Group A (ITP; MCPT for JTS, STS, JAG, SAG) and CWES Group B (JE, AD-II) were conducted in a time bound manner so as to facilitate timely promotions. A total of 10 Cadre Trainings were conducted in a short span of time.
- D. **Faculty Development Program:** As a follow-up of TNA Workshop, Faculty Development Program for Capacity Building & Professional Development of Trainers was conducted for the first time at NWA which received overwhelming response from the Central, State Training Institutes, WALMIs/IMTIs etc.
- E. **Capacity Building of North-Eastern Region and Hilly States** – As directed by Chairman, CWC, specific trainings were conducted to address the training and capacity building needs of North Eastern and Hilly States
- Familiarization with DPR Preparation of SMI, FMP, AIBP, RRR Projects at Leh (UT of Ladakh)

- ii. Survey, Investigation and Preparation of Detailed Project Report for River Valley Projects – at Guwahati for Govt of Assam (2 batches)
  - iii. Flood Protection, Anti-Erosion and River Training Works – at NEHARI for NE Region,
  - iv. Applications of Remote Sensing and GIS in Water Resources- at Itanagar for Govt of Arunachal Pradesh.
- F. **Capacity Building needs of Specific State :** As directed by Chairman, CWC, the following programs for the State Government officials at state location were conducted in order to address their specific requirements:
- i. Preparation of DPR for Flood Management, River Training Works, Anti-erosion for WRD of Govt of Bihar at WALMI, Patna;
  - ii. Increasing WUE in Irrigation Sector for WRD of Govt of Bihar at WALMI Patna
  - iii. RS & GIS applications in WRM for officials of Irrigation & Waterways Department, Govt of West Bengal under WBMIFMP at Kolkata;
  - iv. Introduction to Google Earth Engine for Govt of Andhra Pradesh at Vijayawada
- G. **Programs on specialized subjects –** As directed by Chairman, CWC, the following training were also conducted during 2023-24
- i. Pumped Storage Hydroelectric Project:
  - ii. Coastal Management Information System:
  - iii. Numerical Modelling using Delft3D Software under CMIS
- H. **Training Programs on Dam Safety Aspects:** Consequent upon enactment of Dam Safety Act-2021, initiatives were taken by NWA to create awareness on provisions of Dam Safety Act and to train officials of dam owners on technical issues. The following training events were conducted during the year:
- i. Webinar on Legal and Institutional Framework of Dam Safety in India
  - ii. Webinar on Dam Safety Aspects
  - iii. Customized program for Govt of Gujarat on Dam Safety Aspects
  - iv. Dam Safety Aspects for all Stakeholders
  - v. Dam Safety Instrumentation
  - vi. DHARMA application (2 batches)
- I. **Training on following new areas were introduced during 2023-24**
- i. Modernization of Irrigation Systems using RAP-MASSCOTE Approach
  - ii. Sensitization Program on Flood Disaster Management for senior policy makers and urban planners
  - iii. Training Program on “Post Retirement Prospects and Avenues for CWES Officers”
  - iv. Hydrological Applications of Microwave Remote Sensing

- J. **Knowledge dissemination to all stakeholders:** Two Webinar Series on the following topics were conducted with an objective to disseminate knowledge about conflicts & need for cooperation amongst stakeholders.
- i. Interstate River Water Disputes in India (16 weekly webinars)
  - ii. International Cooperation in Water Sector (11 weekly webinars)
- K. **Mass Awareness Activities:** The following mass awareness programs were conducted to create awareness :
- Five Distance Learning Program on the “Overview of Water Resources Sector” was conducted during the year with a participation of 1110 teachers and DIET faculty on Pan India.
  - One day Residential Program for School Teachers and DIET Faculty was conducted at NWA, CWC, Pune having participation of 36 number of participants.
  - On the directions of DoWR, RD & GR, awareness generation webinars on the following topics were conducted :
    - a. Webinar on Sexual Harassment of Women in Workplace (142 Participants)
    - b. Webinar on SC/ST Prevention of Atrocities Act 1989 (65 Participants)
    - c. Webinar on Constitutional values of fundamentals of Indian Constitution (107 participants)

A one day training-cum-workshop on “Flood Disaster Management” was conducted for NCC Cadets of 2nd Maharashtra Battalion studying in Army Institute of Technology Pune with a participation of 47 NCC Cadets.

L. **National Collaboration and Linkages:**

- i. Fresh MoU was signed with Indian Institute of Management – Ahmedabad in respect of MCTP Level 4 for SAG CWES Group A.
- ii. MoU was also signed between NWA and META (GoM) for collaborative training and capacity building activities & follow up training activities were taken up

M. **Contribution in National/International Events**

- i. NWA officers coordinated a session of 1.5 day duration on the Congress Question 64 “What alternative water resources could be tapped for irrigated agriculture?” and also made presentation on ‘NWA’s role in Training and Capacity Building’ during the special event by CWC in the 25<sup>th</sup> Congress of the International Commission on Irrigation & Drainage (ICID) conducted during 01-08 November 2023 at Vizag.
- ii. NWA officers coordinated Thematic Session on “Water Governance” during the All India Secretaries’ Conference on Water Vision @ 2047- Way Ahead’ held at Mahabalipuram on 23rd-24th January 2024 also delivered the opening presentation.

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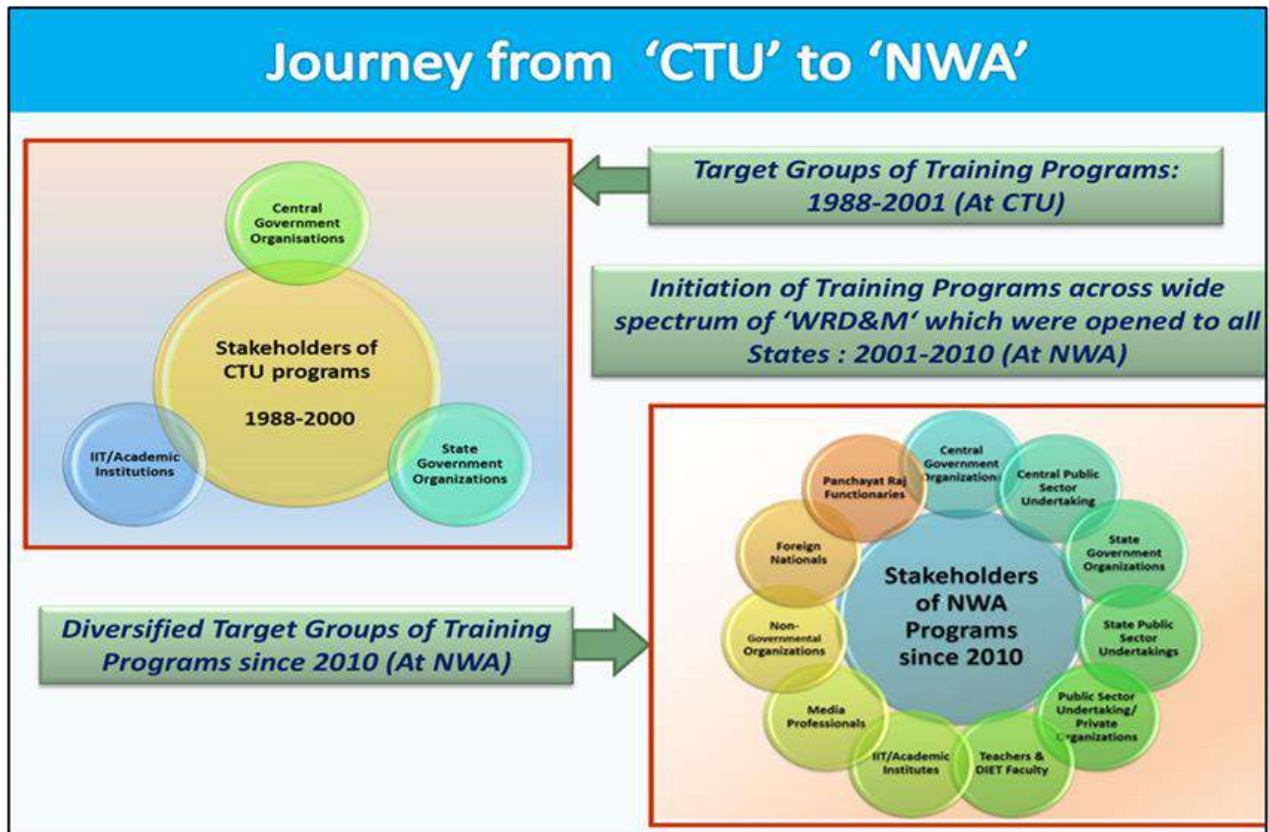
## Chapter 1 : Introduction & Academy Overview

### 1.1 History and Background

Ministry of Water Resources (MoWR), Govt. of India established the Central Training Unit (CTU) (renamed as National Water Academy in 2001) in Central Water Commission during May 1988 in a temporary establishment of Central Water & Power Research Station, Khadakwasla, Pune. The primary objective of CTU was to impart training to the in-service engineers from Central & State organisations on the aspects of Integrated River Basin Planning & Management and to develop institutional capability at the national level for imparting training in new emerging technologies in water resources sectors on continued basis. The establishment of CTU was initially covered under the United States Agency for International Development (USAID) assisted by Water Resources Management & Training (WRM&T) Project. The USAID assistance made available the technical expertise to CTU through consultancy services from M/s Harza Engineering Company, Chicago (USA) and its associates Utah State University, Logan (USA) and M/s Consultancy Engineering Services India Pvt. Ltd, (India).

### 1.2 Upgradation to National Water Academy in 2001

Subsequently, the World Bank in 1993 made available grant-in-aid from the Institutional Development Fund (IDF) for upgrading the training activities and preparing conceptual plans for the CTU (now NWA). The World Bank assisted Hydrology Project which commenced in 1996 provided necessary financial support for upgradation of infrastructural facilities. Present National Water Academy came into existence in May 2001 and is being continuously upgraded in terms of infrastructure and curriculum. NWA, a 'Centre of Excellence' in Central Water Commission under Department of Water Resources, RD & GR, Ministry of Jal Shakti, Government of India is imparting training and building capacity of Water Sector professionals and other stakeholders in the country and professionals of foreign countries. After being upgraded from CTU to NWA it has widened its reach, in 2010, to include all stakeholders of water sector and now besides mandatory cadre trainings programmes courses; high technology areas in water sector including Hydrology; Application of GIS in water sector; Mathematical Modelling; Design of structures; Environmental issues in water resources development etc. programmes are also being delivered on water sector for mass awareness to teachers, media professionals, NGOs, PRIs and others.



In its national role, the NWA is focusing on conducting training courses for all water sector personnel, in the specialized and emerging areas, for which the existing State or other Institutes are not equipped to meet the needs. From only one/two programs in CTU (i.e. IRBP&M and ITP), NWA is now targeting about 32 programs per annum in the wide spectrum of topics related to water sector. Major beneficiaries of these programs are State Govt officers, Officers of Central Water Commission, Central Organisations, School Teachers, Media Professionals, NGOs & Panchayati Raj functionaries and also Foreign Nationals etc

### 1.3 Mandate and Role of National Water Academy

NWA, Pune is a Central Training Institute (CTI), primarily mandated to conduct Induction Training Program for Central Water Engineering Services Group 'A' & Group 'B' Officers and Scientific cadre officers; Mandatory Cadre Training Programs for all levels of Group A & Group B Officers; Capacity Building for Stakeholders in field of Water Resources Development and Management (mainly comprising of in-service professionals from State Government/Central Government/ PSUs & Private etc.); core area trainings; training on areas of emerging technologies, purpose-oriented training; Mass Awareness Programs; Demand Based Programs for Indian and Foreign Nationals etc. In addition, objectives include assistance to state govt institutes for their specific training needs and collaboration with international agencies like WMO, COMET, ICID etc. for training & other purposes.

## 1.4 Mission & Vision

The Mission of Central Water Commission (CWC) is “to promote integrated and sustainable development and management of India’s water resources by using state-of-art technology and competency and by coordinating all stakeholders”.

Furthering the mission of CWC, the vision of the National Water Academy is to provide quality training for building capacity of water resources professionals and responsive

engineering services. Its mission is to educate all stakeholders to manage water resources issues and to overcome them in an integrated and sustainable manner. NWA is to act as an umbrella organization for Capacity Building of all stakeholders of Water Sector in the country.



## 1.5 Objectives and Functions of NWA

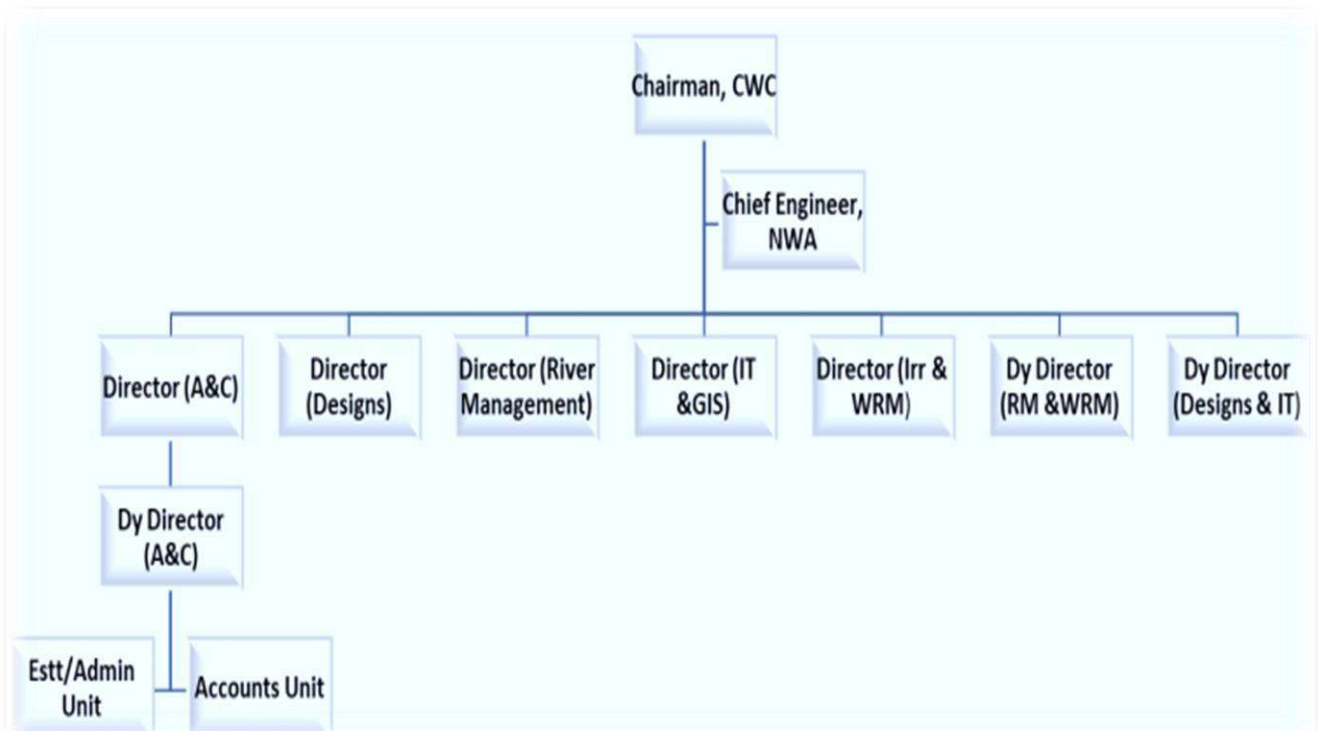
Objectives	<ul style="list-style-type: none"> <li>• Keeping up-to-date and enhancing professional knowledge and skills required for better performance and competency growth of individuals and organizations;</li> <li>• Orienting participants to various emerging issues in Water Resources Sector, with underlain philosophy, values, principles and priorities as per requirements of the organizations where they are likely to work during their service tenure;</li> <li>• Inculcating better understanding of engineering/professional requirement as well as sensitization to socio-economic environment;</li> </ul>
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	<ul style="list-style-type: none"> <li>• Bringing about right attitudinal orientation and transformation to build professionalism, commitment and nurture water resources engineers to become responsive &amp; responsible;</li> <li>• Establishing linkages with leading Institutions in India and Abroad in water resources sector for sharing and enriching the expertise with associated confidence building.</li> </ul>
Functions	<ul style="list-style-type: none"> <li>• Induction Training Programs (ITP) for newly appointed CWE S Group 'A' &amp; Group 'B' Officers;</li> <li>• Mandatory Cadre Training Programs (MCTP) for CWE S Group 'A' &amp; Group 'B' Officers; and Scientific Cadre at all levels</li> <li>• Specialized/Core Area Courses for officers of Central and State agencies on various aspects of Water Resources Development and Management;</li> <li>• Flagship Schemes of Ministry for skill development and awareness;</li> <li>• New emerging technologies in water sector;</li> <li>• Develop training modules/case studies including on RS &amp; GIS applications in water resources etc.;</li> <li>• Assistance to Central/ State Government organizations and their training institutes on their specific training needs;</li> <li>• Non-Technical Programs;</li> <li>• Trainers Development Programs;</li> <li>• Purpose Oriented Distance Learning Programs;</li> <li>• National / International Seminars and Workshops on issues related to water resources development/ related subject areas for the benefit of Central / State agencies;</li> <li>• Faculty Development Programs (For NWA Core Faculty)</li> <li>• Customised Trainings to professionals of other countries</li> </ul>

## Chapter 2 : Governance and Organizational Structure

### 2.1 Administrative Setup

The NWA is headed by a Chief Engineer and has five Directors and three Deputy Directors as core faculty. The core faculty is drawn from CWES (Central Water Engineering Services-Group A) cadre who have long practical experience in Water Resources Development and Management. The guest faculty comprises of academicians and scientists of eminence from premier Research Centres and Universities in India, as well as practicing professionals and specialists drawn from other organizations and agencies. The present organogram is as follows :



The present staff strength of NWA is 32 (as given in Annex-I). The need for strengthening of NWA with additional manpower and infrastructure facilities was recognized much earlier in 2003-04. The present human resources strength is very limited.

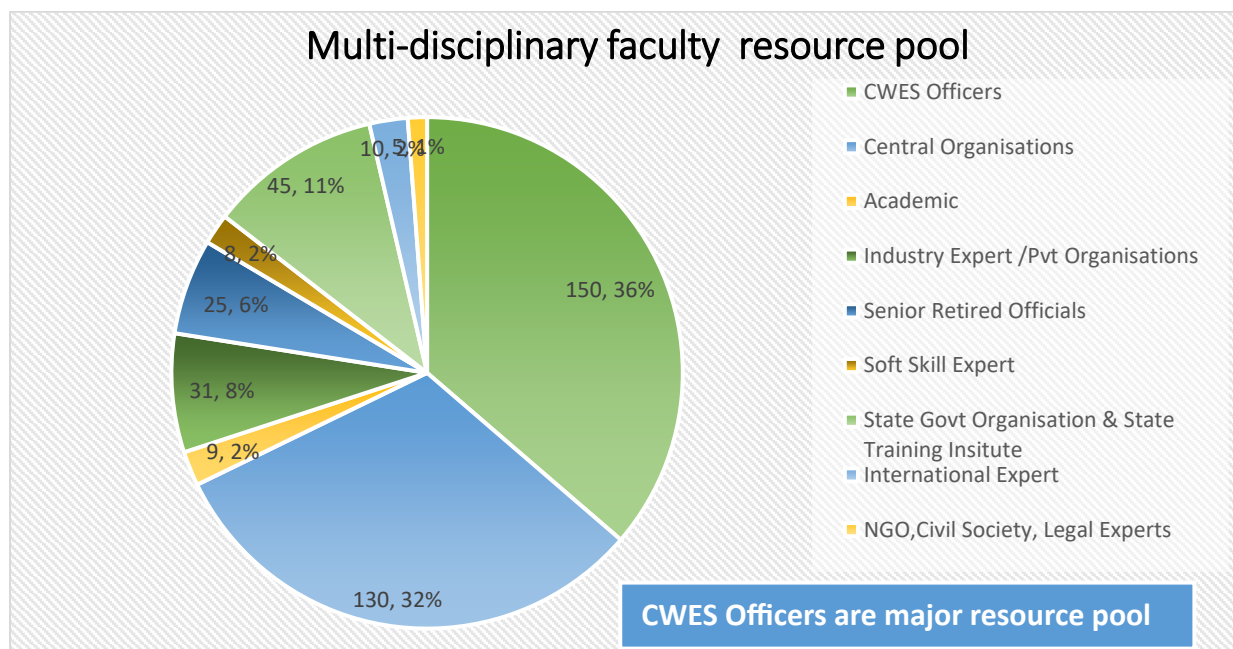
### 2.2 Faculty Resource Pool

The training programs conducted at NWA focuses on applied learning and are multi-disciplinary nature. Apart from the NWA Core faculty the invited guest faculty comprises of subject matter experts drawn from the various organisations as below :

- i. **Central Water Engineering Services Group A Officers are the major resource pool imparting training with a focus on Applied Learning**

- ii. Central and Central PSUs etc.
- iii. State WRDs, WALMIs, IMTIs etc
- iv. Academicians and scientists of eminence from premier Research Centers and Universities in India,
- v. Practicing professionals and specialists drawn from other organizations and agencies,
- vii. Eminent Retired Experts;
- viii. Experts from Private Organisations and Non-Governmental Organisation are invited for guest lectures.

NWA leverages a diverse and highly skilled faculty resource pool to deliver comprehensive training programs. In addition to the Central Water Engineering Services (CWES) resource pool, NWA collaborates with renowned experts from premier academic institutions, including IITs, IIMs, NITs, and other leading universities. The academy also engages industry specialists, senior government officials, and international experts from organizations such as the World Bank, WMO, ICID, and India-EU Water Partnership to ensure the latest advancements and best practices in water resources management are incorporated into the training curriculum. This multidisciplinary approach enhances the quality and impact of NWA's programs, equipping trainees with both technical expertise and policy insights to address contemporary water management challenges. During the year 2023-24, about 400 experts were invited as an expert faculty from the various Category of the organizations.



## 2.2 Monitoring Mechanism

The National Water Academy, Pune is being guided by the following Boards /Committee:

Sr. No.	Name of Board/ Committee	Terms of Reference
1	Advisory Board: Chaired by Secretary, DoWR, RD & GR	<ul style="list-style-type: none"> <li>To provide guidance and recommendations for carrying out the training programs within the framework of Water Resources Policies and Activities in India</li> <li>To review the on-going training programs and to suggest the content and process of conducting training in the Academy, including infrastructure development required to create a learning environment</li> </ul>
2	Program Advisory Committee: Chaired by Chairman, CWC	<ul style="list-style-type: none"> <li>To devise Sessions plan in line with Training Policy.</li> <li>Formulation of individual Training programs</li> <li>Selection/Recommendation of Expert faculty</li> <li>Suggestion of selection of indicators for Training Impact Assessment</li> <li>To co-opt any other serving/non-serving members</li> </ul>
3	WMO Advisory Committee: Chaired by Chairman, CWC	<ul style="list-style-type: none"> <li>To facilitate smooth functioning of the Regional Training Centre (RTC).</li> <li>To advice and oversee the distance learning training programs conducted in association with WMO.</li> <li>To place the work done to Advisory Board for information.</li> </ul>
4	Training Oversight Committee	Chaired by Joint Secretary (Adm & GW) :To oversee and integrate the content and process of training programs being offered by Training Institutes of this Department. The ToR of the Committee is to achieve integration and shall periodically seek feedback from trainees and other stakeholders to review the training activities on regular basis.

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## Chapter 3 : Training Development Process

### 3.0 Training Program Development Process

#### 3.1 Structured Approach to Training Development

NWA follows a **scientific and standardized** approach to developing training programs. The training cycle includes:

- **Training Needs Assessment (TNA):** Conducted through stakeholder consultations, feedback mechanisms, and advisory board recommendations.
- **Program Planning & Design:** Based on TNA inputs, a structured **Annual Training Plan** is formulated.
- **Program Implementation:** Training is delivered using a mix of classroom sessions, hands-on training, and digital learning.
- **Feedback & Evaluation:** Continuous feedback is collected to refine and enhance training effectiveness.

#### 3.2 Competency-Based Training Framework

NWA aligns its training programs with the **National Training Policy (2012) and Mission Karmayogi**, focusing on three key competencies:

- **Behavioural Competencies:** Soft skills such as leadership, communication, and teamwork.
- **Functional Competencies:** Managerial and strategic skills for decision-making and policy implementation.
- **Domain Competencies:** Technical expertise in hydrology, dam safety, flood forecasting, and GIS applications.

#### 3.3 Categories of Training Programs

NWA offers training programs in the following broad categories:

Category	Competency Focus
Cadre Training (CWES Group A & B)	Domain, Functional, Behavioural
Other Cadre Training for CWC/DoWR, RD & GR	Domain, Functional, Behavioural
Faculty Development Programs	Functional, Behavioural
Core Technical Programs	Domain
Specialized Programs (DRIP, NHP)	Domain
Customized/Demand-Based Training	Domain
Non-Technical Programs	Domain, Functional
Mass Awareness Programs	Domain
Distance Learning (Certificate Courses)	Domain

### 3.4 Training Plan Formulation & Implementation

The Annual Training Plan is developed based on:

- Inputs from **Advisory Board & Program Advisory Committee.**
- Feedback from **state governments, ministries, and stakeholders.**
- Directions from **Central Water Commission (CWC) & Ministry of Jal Shakti.**

A **Standard Operating Procedure (SOP)** ensures effective training execution, covering aspects such as faculty selection, logistics, and quality assurance.

#### 3.4 Training Methodology (Andragogy)

NWA employs a **blended learning approach**, incorporating classroom instruction with e-learning modules.

- **Hands-on Training & Field Visits** – Real-world exposure to water resource infrastructure.
- **Problem-Based Learning (PBL)** – Engaging participants in solving actual water sector challenges.
- **Interactive Case-Based Learning** – Analyzing best practices in water management.
- **Technology-Enhanced Learning** – Utilizing GIS, AI, and remote sensing tools for advanced training.
- **Peer Learning & Mentorship** – Encouraging collaboration and expert guidance.

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## Chapter 4 : Broad Categories, Areas & Types of Training Offered

### 4.1 Broad Categories of Training

NWA offers training programs under the following Broad Categories:

- i. **Cadre Training for CWES Officers** – Mandatory training for Central Water Engineering Services (CWES) Group A and Group B officers at different career levels.
- ii. **Other Cadre Training Programs** - for officials of CWC /other organisations of DoWR, RD & GR
- iii. **Faculty Development Programs (FDP)** – Enhancing teaching skills for trainers in the water sector.
- iv. **Core Area /Technical Training Programs including Workshops, Webinars etc** – Specialized programs on water resources engineering and management.
- v. **Programs under the Flagship Scheme of DoWR, RD & GR** – Programs under projects like AIBP, CAD, NHP, DRIP etc
- vi. **As per the Annual Capacity Building Plan of DoWR, RD & GR prepared by Capacity Building Commission**
- vii. **Training Programs under aegis of India Water Europe Union - NWA is identified as Nodal Under PR 7 capacity building under IEWP.**
- viii. **Customized and Demand-Based Training** – Tailor-made programs for organizations.
- ix. **Non-Technical Trainings** - Management Development Program etc specifically for Non-Technical Officers of CWC & organisations under DoWR, RD & GR.
- x. **Mass Awareness**– Outreach programs for School Teachers & DIET Faculty, NGOs, media professionals, PRIs etc.
- xi. **Distance Learning** – NWA is recognized as Regional Training Centre of WMO since 2012, NWA regularly conducts DL Programs in association with WMO. A Certificate Course on PIM in association with IndiaPIM is also conducted. There are numerous modules which are conducted in DL Mode.
- xii. **Collaborative Programs with WALMIs/IMTIs**
- xiii. **Training Program for Foreign Nationals** as per the need.

## 4.2 Broad Areas of Training

The training programs cover various disciplines in water resource management, categorized as follows:

Broad Area	Topics Covered
<b>Design &amp; Structural Engineering</b>	Dam design, Barrage & Weir design, FEM & advanced modeling techniques.
<b>Project Planning &amp; Development</b>	Survey & Investigation, DPR preparation, Project appraisal.
<b>Hydrology &amp; Flood Management</b>	Hydrological modeling, Real-time flood forecasting, Climate resilience.
<b>Irrigation &amp; Agriculture</b>	Participatory irrigation management (PIM), Micro-irrigation, Canal automation.
<b>Hydropower Engineering</b>	Design of hydropower structures, Pumped storage hydropower projects.
<b>Water Policy &amp; Governance</b>	National Water Policy, Water laws, River basin governance.
<b>Information Technology &amp; GIS</b>	GIS-based decision support, AI & ML applications in water management.
<b>Environmental &amp; Social Aspects</b>	Climate change impacts, Sustainable water management.
<b>Mass Awareness &amp; Non-Technical Areas</b>	Water conservation campaigns, Public engagement in water management.

## 4.3 Types of Training Programs Offered

On any given topic, course content is designed depending on the level of participants. The type of programs offered by NWA can be divided to following six broad categories:

- **Exposure Programs** :These are intended for exposing senior technocrats to what is new. These are not training programs, in the sense the participants are not expected to learn & how to do it; but only appreciate what is the state of art, so that they can take strategic decisions to use it in their own departments. These are short duration programs, covering 4 to 6 topics over 3 days.

- **Operational Level Training Programs** :In this category different programs are designed for Junior Level Officers (separately), where the participants are trained at operational level in the given topic. These are 5 days to 15 days duration and focus on one topic only.
- **Refresher programs** :In separately designed programs for Middle / Junior Level, refresher programs are intended to bring the participants up-to-date on latest developments in the given topic and brush up forgotten concepts. These are short programs of about 3-days and address more than one topic. The difference between this category and Exposure programs is, in Refresher Programs the participants are expected to be already well versed with the subject, and are brought up to date with the latest developments, whereas in Exposure Program new ideas are introduced.
- **Brain Storming Sessions** :These are for Senior Level Officers These are short (3-days) programs where there is no “faculty” and no “teaching”. The format is that of open discussion in brain storming mode to “take the thinking forward” and create a “think tank”. 4 to 6 topics are discussed over a 3-day period.
- **Customized Programs** : In addition, NWA also takes up custom-made training programs as per the requirements of client Organisations on any topic related to water resources development and management.

NWA's diverse training portfolio ensures that professionals across the water sector gain relevant expertise, thereby contributing to improved water resource management and policy formulation. With an emphasis on technical excellence, practical applications, and policy integration, NWA remains committed to fostering a well-trained workforce for the sustainable development of India's water resources.



## Chapter 5 : Training Program Evolution

Being a premier institute, NWA conducts training courses on all aspects of water resources development and management; and also on administration and management. Since October 2010, the Academy has opened its doors also to Public Sector Undertaking, Private Sector, Foreign Nationals, Media Personnel's, NGOs, individuals, in fact virtually covering every one.. During the last few years NWA has taken number of initiatives to increase its visibility among the target audience and also to add more activities to its portfolio. NWA has made open its regular training program to all. On an average, NWA conducts more than 32 training program in year and it includes regular training programs at NWA and custom-made training program based on the client's demand at the client's location or at NWA.

Further, NWA is a Central Training Institution (CTI) mandated to conduct Induction Training Program (ITP) for CWES Group 'A' officers. Apart from cadre and technical training programs, NWA also offers non-technical programs and mass awareness programs. NWA's activities include organizing workshops, seminars, and conferences to promote integrated and sustainable development and management of water resources. Also, assistance is extended to Central/ State Government organizations and their training institutes for addressing their specific training needs. NWA, for over last 38 years, is addressing the wider training needs of water resources professionals both technical (Engineering) and non-technical (non- Engineering).

In its national role, the NWA is concentrating on conducting training courses for all water sector professionals, in the specialized and emerging areas. NWA since its inception till 31 March 2024, a total of 979 programs have been conducted benefiting 54009 participants.

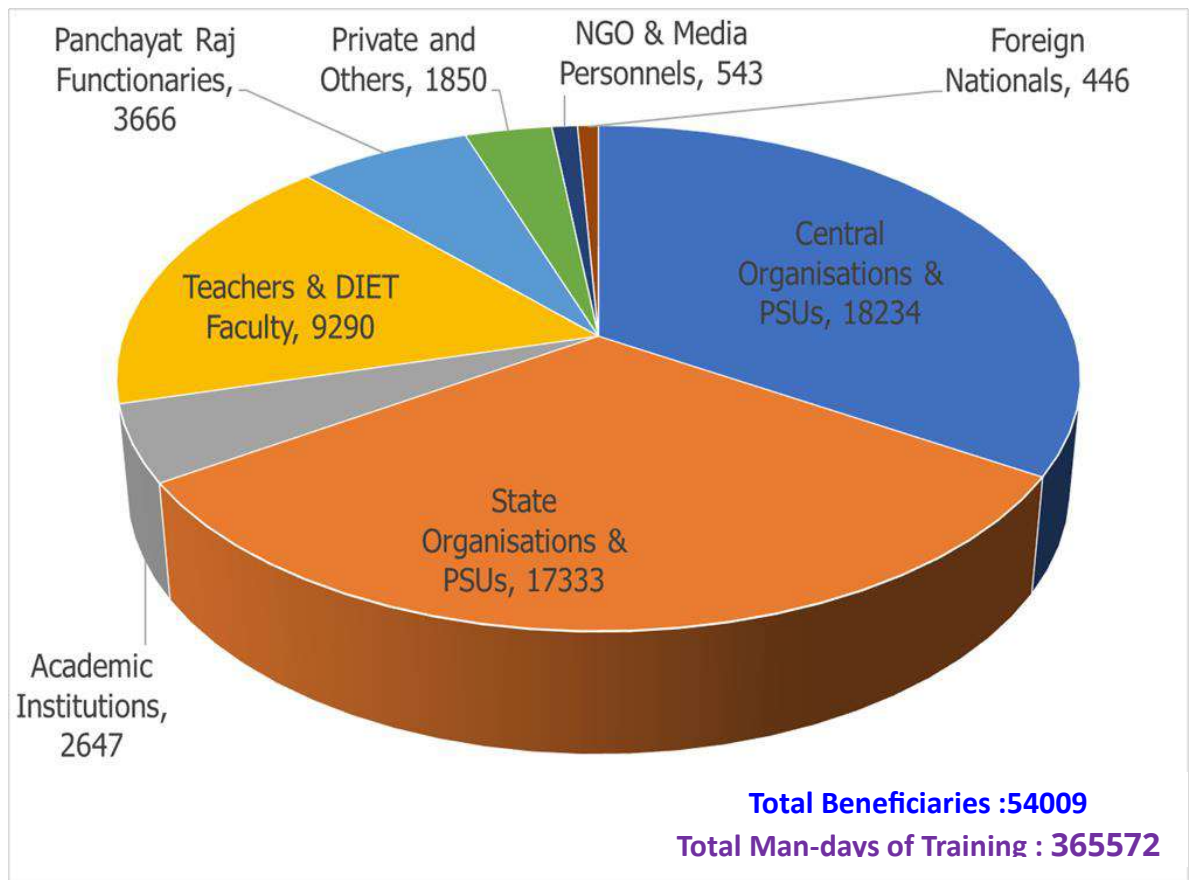
Major beneficiaries of these programs are State Govt officers, officers of Central Water Commission, Central Organisations, School Teachers, Media Professionals, NGOs & Panchayat Raj functionaries, Foreign Nationals etc. National Water Academy (NWA), Pune, under Central Water Commission (CWC), is functioning as a 'Centre of Excellence' in the field of training and capacity building of professionals and other stakeholders in the water resources sector.

Performance Analysis

Physical Achievement of Training Activities : Summary of Training Programs 1988-2024

Year	No. of trainings	Training Weeks	Officers Trained	Man-weeks of Training	Training Days	Man-days of training
1988-89	1	13	29	377	65	1885
1989-90	2	35	67	1170	175	5850
1990-91	1	42	25	1050	210	5250
1991-92	1	42	17	714	210	3570
1992-93	1	42	21	882	210	4410
1993-94	1	42	17	714	210	3570
1994-95	1	42	17	714	210	3570
1995-96	3	55	58	884	272	4420
1996-97	5	44	167	973	217	4865
1997-98	4	34	65	551	170	2755
1998-99	8	14	135	227	68	1135
1999-2000	7	46	97	562	230	2810
2000-01	10	24	162	425	120	2125
2001-02	25	53	515	1109	267	5545
2002-03	33	53	796	1045	262	5225
2003-04	31	76	852	1797	379	8985
2004-05	24	71	668	1846	354	9230
2005-06	28	66	682	1662	329	8310
2006-07	36	56	816	1183	280	5915
2007-08	31	53	742	1021	263	5105
2008-09	28	52	600	1001	251	5005
2009-10	37	48	954	1085	238	5425
2010-11	39	54	880	1029	270	5145
2011-12	34	39	774	860	193	4300
2012-13	33	55	787	2864	389	14196
2013-14	37	73	877	1782	365	8910
2014-15	33	83	843	2847	413	14235
2015-16	36	77	1063	2649	382	13245
2016-17	30	79	850	2067	394	10335
2017-18	42	52	1238	1791	259	8955
2018-19	32	78	1059	2616	388	13080
2019-20	29	60	797	2112	298	10559
2020-21*	83	107	9513	11552	536	57759
2021-22*	86	75	14973	10996	375	54981
2022-23	46	78	3540	2711	380	13430
2023-24	101	121.1	9313	6296.4	606	31482
<b>Total</b>	<b>979</b>	<b>2034.1</b>	<b>54009</b>	<b>73164.40</b>	<b>10238</b>	<b>365572</b>

\* Due to COVID Pandemic all programs/events were conducted online only



**More than 54,000 stakeholders of Water Resources Sector have been trained by NWA, nationally and internationally (till March 2024)**

### Beneficiaries of NWA Programs 1988 to March 2024

<b>Central Organisations &amp; PSUs</b>	<b>18234</b>
<b>State Organisations &amp; PSUs</b>	<b>17333</b>
<b>Academic Institutions</b>	<b>2647</b>
<b>Teachers &amp; DIET Faculty</b>	<b>9290</b>
<b>Panchayat Raj Functionaries</b>	<b>3666</b>
<b>Private and Others</b>	<b>1850</b>
<b>NGO &amp; Media Personnels</b>	<b>543</b>
<b>Foreign Nationals</b>	<b>446</b>
<b>Total Beneficiaries till March 2024</b>	<b>54009</b>

## Chapter 6 : Training, Capacity Building and other Initiatives -2023-24

### 6.1 Development of Training Plan for the year 2023-24

Over the years, NWA has established a well-structured and standardized training development process. Training Needs Assessments (TNA) are systematically conducted by engaging with a diverse range of stakeholders to ensure the alignment of training programs with the evolving needs of various organizations within the department. Additionally, NWA's training initiatives are designed to encompass representation from stakeholders across India, catering to participants from diverse backgrounds and expertise levels.

To continuously enhance its training programs, NWA implements a robust feedback mechanism. At the conclusion of each training session, participants provide structured feedback, highlighting key insights and future training requirements. This feedback serves as a critical input for assessing and refining the training curriculum, ensuring its relevance and effectiveness in addressing contemporary challenges in the water resources sector.

Moreover, NWA serves as the Nodal Agency for implementing:

- (i) All Mandatory Cadre Training Programs for CWES (Group A and B) officials and other departmental cadres;
- (ii) Training and capacity-building needs under the National Hydrology Project and other flagship schemes of the Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR);
- (iii) Training programs catering to the needs of State Government organizations and other stakeholders;
- (iv) Training under the India-EU Water Partnership (IEWP); and
- (v) Demand-based training programs.

NWA is also recognized as a Regional Training Centre by the World Meteorological Organization (WMO), particularly for training in hydrology and hydraulic sciences.

Thus, the NWA training plan for the year 2023-24 was formulated by considering:

- (i) The Training Policy of CWC/DoWR, RD & GR, which includes inputs for the Cadre Training Plan for CWES Group A & B, non-technical programs, and specific requirements from the Design & Research, River Management, Water Planning & Projects, and Human Resource Management wings;
- (ii) Regular training areas traditionally covered by the Academy;
- (iii) Inputs from the Training Oversight Committee to foster synergy
- (iv) Capacity-building needs of the North Eastern States, in collaboration with NEHARI;
- (v) Specific training needs identified during interactions with senior sector officers and faculty meetings;

- (vi) Directions received from the Ministry of Jal Shakti and CWC from time to time;
- (vii) Training needs of other stakeholders, covering core technical aspects such as the National Hydrology Project (NHP) and the Dam Rehabilitation and Improvement Project (DRIP);
- (viii) Training requests from WALMIs/IMTIs to strengthen and synergize water education; and
- (ix) Mass awareness programs targeting school teachers, NGOs, and media professionals.

The Training Plan for year 2023-24 was prepared and was approved by the Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation, through its letter dated 20 July 2023. The approved Training Plan for the year 2023-24 comprised of total of 72 programs to be implemented under the following broad categories:

#	Category of Training Program	Approved Numbers
1.	<b>Cadre Training Programs for CWES Gr A &amp; B officers</b>	<b>09</b>
2.	Other Cadre Training Programs of officials of CWC/ other Organisations of DoWR, RD & GR	03
3.	Core Area Programs including under NHP, DRIP, IWEP, Webinars on Water Disputes	28
4.	Non-Technical Programs	04
5.	DL on Basic Hydrological Sciences in association with WMO	2
6.	Financial and Works Management	4
7.	Mass Awareness Program (& Awareness Generation Webinars as directed by Ministry	09
8.	Foreign Training	01
9.	Synergisation with WALMI/IMTI/NEHARI	12
	<b>Total</b>	<b>72</b>

In addition to the approved Training Plan for the year 2023-24, Academy conducted variety of training programs specifically for States / UTs covering the various key aspects of water resources management during 2023-24. These programs were planned, conceptualized and conducted as follow-up of action of :

- Need arisen from the Workshop on Training Need Assessment conducted in Delhi to assess the training needs of stakeholders of Water Resources Sector, which was first of its kind.
- In pursuance of the initiatives of Chairman, CWC , for action plan to meet Short, Medium (2030) and Long Term (2047) challenges in the field of Water Resources, which included capacity building and training for the officers of special areas like state/UTs of north east, J&K, Ladakh etc.,
- Directions of DoWR,RD&GR, Ministry of Jal Shakti, to take up the capacity building requirements of the Water Resources Professionals with special focus on training needs on the Dam Safety Aspects of the Himalayan Region of India.

- Inputs and directions received from Chairman, CWC during the Interactive Sessions conducted with the State Government Organisations.
- In pursuance of the Memorandum of Understanding (MoU) signed between the NWA, CWC and the Maharashtra Engineering Training Academy (META), WRD.

## 6.2 Achievements of Training Activities

Accordingly, NWA conducted a variety of training programs covering key aspects of water resource management, including river basin planning, dam safety, irrigation management, flood forecasting, and water quality monitoring etc. Specialized training on emerging technologies such as Remote Sensing, GIS applications, and the use of software tools were offered, catering to the needs of both beginners and advanced professionals.

The academy organized webinars on emerging topics of dam safety with participation from leading experts in the field. Tailored programs were designed to meet the specific needs of state water resources departments, enhancing their technical capabilities in water management and infrastructure development. These training sessions included practical hands-on exercises and case studies relevant to regional challenges, ensuring practical knowledge transfer. Recognizing the growing importance of digital learning, NWA expanded its online training portfolio, offering webinars, e-learning modules, and virtual workshops. These initiatives allowed wider participation from professionals across the country, including those in remote areas.

NWA's achievement for 2023-24 in terms of number of trainings and training weeks is highest in any year till date. This output is achieved in spite of vacancies at faculty and support staff level. The achievement of NWA for 2023-24 vis-a-vis average of last 15 years is as given below:

Achievement of NWA	Training Programs/Events	Training Weeks	Officers trained
<b>Annual Average of last 15 years (2008-09 to 2022-23)</b>	42	67	3003
<b>Achievement during 2023-24</b>	<b>101</b>	<b>121</b>	<b>9313</b>

NWA has fully resumed residential training (face-to-face) after the COVID situation. In addition to the residential training programs, NWA is continuing to conduct training programs in distance learning mode through its MOODLE Learning Management System (LMS) – e-learning portal. Also, it has started conducting training in Hybrid & blended mode.

During the year 2023-24, the National Water Academy (NWA), CWC, Pune conducted a total of 101 training programs, covering Residential (at NWA and state locations), Distance Learning (DL), and Hybrid modes. These programs collectively benefitted 9313 participants from a wide

spectrum of stakeholders, including Central and State Government departments, PSUs, academic institutions, NGOs, and international participants.

#### Mode-wise Training Delivery (2023–24)

Mode of Training	No. of Trainings	Remarks
Residential Programs	54	At NWA: 44; Outside NWA: 9
Hybrid (DL + Residential)	4	
Distance Learning	43	Includes 29 webinars
<b>Total</b>	<b>101</b>	

NWA conducted a diverse range of training programs covering various categories, benefiting a significant number of participants. The details are as follows:

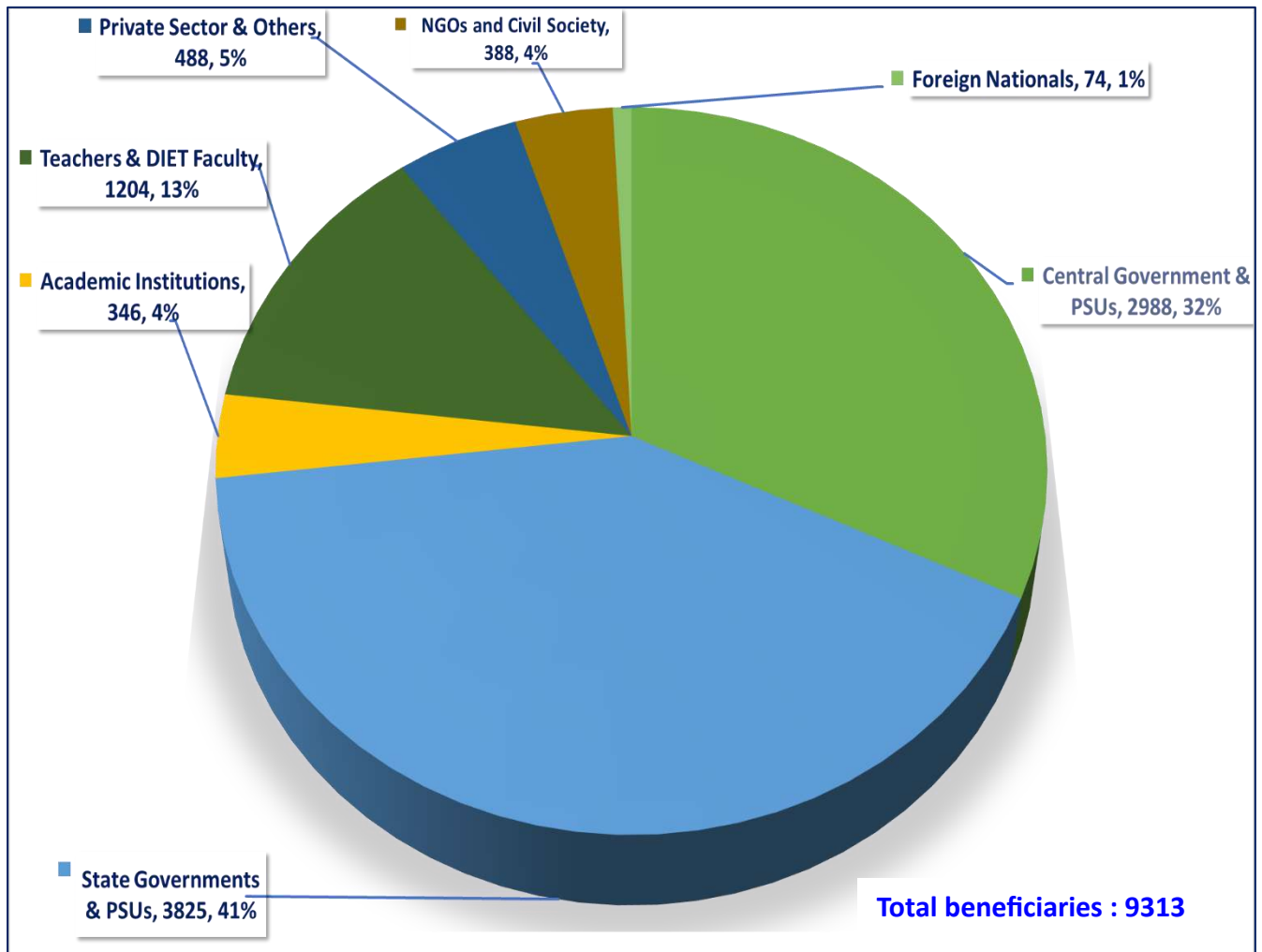
Category of Training	No. of Programs	Total Beneficiaries	Remarks
<b>Cadre Training Group 'A'</b>	06	116	1 ITP for CWES Gr A for 34 weeks; 5 MCTPs.
<b>Cadre Training Group 'B'</b>	04	200	MCTP for JEs and AD-II.
<b>Other Cadre Training Programs</b>	06	157	ITP for JEs of NWDA; CGWB, NERIWALM, Hydromet Cadre CWC & MTS of CWC.
<b>Technical Training Programs</b>	22	1972	Under NHP, in collaboration with IEWP, NMCG, CMIS, DRIP etc.,
<b>Workshop on Training Need Assessment</b>	01	176	Conducted as a part efforts under the aegis of Training Oversight Committee (ToC).
<b>Faculty Development Program</b>	01	33	As Follow-up of TNA Workshop, Training Managers from the State and Central Organizations
<b>Customized Programs</b>	09	350	Telangana, Leh & Ladakh, North Eastern Region, Assam, Arunachal Pradesh, West Bengal, Bihar etc.
<b>Water Policy &amp; Governance</b>	30	4026	Webinar Series ISWRD (16 Weekly Webinars), International Water Cooperation (11 Weekly Webinars), Dam Safety Aspects (02), Residential Training of Water law & River Valley Disputes (as per CBC) ACBP.
<b>DL Program as RTC of WMO</b>	01	76	Basic Hydrological Science for National and International Participants

<b>Financial &amp; Procurement Management</b>	06	403	Workshop & Webinars on Pension Matter, Delegation of Financial Powers, PFMS on e-module, Procurement challenges, e-Gem etc
<b>Mass Awareness Programs</b>	10	1517	For School Teachers, NCC Cadets & Others Stakeholders
<b>Non-Technical Programs</b>	05	287	MDP, Overview of WRs, Post Retirement, RTI Audit, Workshops etc.
<b>Total</b>	<b>101</b>	<b>9313</b>	

### 6.3 Analysis of Training Programs Conducted by National Water Academy (NWA), CWC, Pune during 2023-24

#### i. Stakeholder-wise Participation (2023-24)

Stakeholder Category	No. of Participants
Central Government & PSUs	2988
State Governments & PSUs	<b>3825</b>
Academic Institutions	346
Teachers & DIET Faculty	1204
Private Sector & Others	488
NGOs and Civil Society	388
Foreign Nationals	74
<b>Total</b>	<b>9313</b>

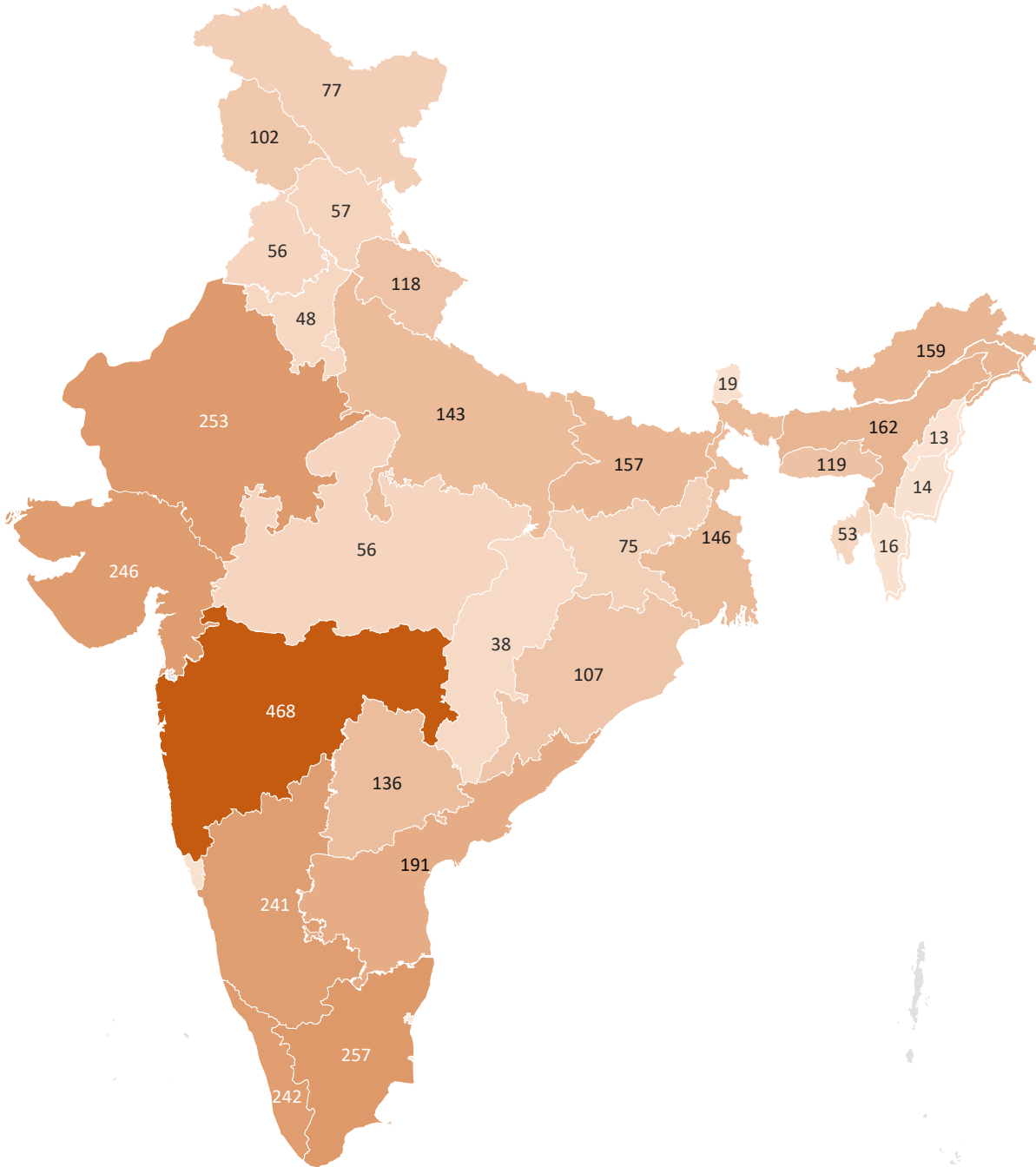


### i. State-wise Participation in all Training Modes (2023-24)

During 2023-24, NWA effectively leveraged multiple training delivery modes to ensure knowledge dissemination and skill development across the country. A total of 924 participants attended Residential Training Programs conducted at the NWA campus in Pune, enabling immersive, interactive learning experiences. In addition, 381 participants benefitted from Distance Learning (DL) Programs, which provided flexibility for stakeholders to engage in structured learning without the need for physical presence. Furthermore, 2,520 participants attended Webinars, ensuring wide-scale outreach and real-time knowledge sharing on critical water sector issues. This multi-modal approach ensured that NWA's capacity-building efforts were accessible to a diverse audience, including those from remote and far-flung regions, contributing significantly to building technical and institutional capacity in the water resources sector.

State / Union Territory	State Participants of Webinars	State Participants of DL Programs	State Participants of Residential Programs	Total No. of State participants
(A)	(B)	(C)	(D)	(E)
Maharashtra	349	18	101	468
Tamil Nadu	217	20	20	257
Rajasthan	221	5	27	253
Gujarat	157	21	68	246
Kerala	194	22	26	242
Karnataka	205	13	23	241
Andhra Pradesh	66	65	60	191
Assam	24	77	61	162
Arunachal Pradesh	6	3	150	159
Bihar	93	14	50	157
West Bengal	92	26	28	146
Uttar Pradesh	93	28	22	143
Telangana	90	18	28	136
Meghalaya	87	3	29	119
Uttarakhand	108	1	9	118
Odisha	87	10	10	107
Jammu and Kashmir	92	4	6	102
Ladakh	10	0	67	77
Jharkhand	51	9	15	75
Himachal Pradesh	51	1	5	57
Punjab	37	0	19	56
Madhya Pradesh	35	9	12	56
Tripura	42	1	10	53
Haryana	34	2	12	48
Chhattisgarh	22	0	16	38
Delhi	20	2	2	24
Sikkim	14	0	5	19
Mizoram	4	0	12	16
Goa	1	9	6	16
Chandigarh	11	0	3	14
Manipur	3	0	11	14
Nagaland	4	0	9	13
Dadra and Nagar Haveli and Daman and Diu	0	0	1	1
Puducherry	0	0	1	1
Andaman and Nicobar Islands	0	0	0	0
Lakshadweep	0	0	0	0
<b>Total</b>	<b>2520</b>	<b>381</b>	<b>924</b>	<b>3825</b>

### State-wise total Participants in 2023-24



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During 2023-24, NWA's training programs witnessed participation from across India, reflecting broad national outreach and knowledge dissemination. The top **five states in terms of total participation were Maharashtra (468), Tamil Nadu (257), Rajasthan (253), Gujarat (246), Kerala (242)**. The detailed region-wise distribution of participants is as follows:

- **Western Region:** Maharashtra (468), Gujarat (246), Rajasthan (253), Goa (16)
- **Southern Region:** Karnataka (241), Kerala (242), Tamil Nadu (257), Telangana (136), Andhra Pradesh (191), Puducherry (1)
- **Northern Region:** Uttar Pradesh (143), Uttarakhand (118), Haryana (48), Punjab (56), Himachal Pradesh (57), Delhi (24), Chandigarh (14)
- **Central & Eastern Region:** Madhya Pradesh (56), Chhattisgarh (38), Bihar (157), Jharkhand (75), West Bengal (146), Odisha (107)
- **North-Eastern & Himalayan Region:** Arunachal Pradesh (159), Assam (162), Manipur (14), Meghalaya (119), Mizoram (16), Nagaland (13), Sikkim (19), Tripura (53), Ladakh (77), Jammu & Kashmir (102)
- **Union Territories:** Dadra & Nagar Haveli and Daman & Diu (1), Andaman & Nicobar Islands (0), Lakshadweep (0)

With a total of 3,825 participants from diverse regions, NWA continues to serve as a premier national training hub, catering to the capacity-building needs of stakeholders across all states and union territories. This extensive outreach reflects NWA's commitment to skill development, knowledge sharing, and collaborative learning in the water resources sector, promoting equitable access to knowledge for participants from even the remotest corners of the country.

Beneficiaries	No of Participants
<b>States &amp; Union Territories &amp; PSUs</b>	<b>3825</b>
<b>Central Organizations &amp; PSUs</b>	<b>2988</b>
<b>Total</b>	<b>6813</b>

The list of training courses, workshops and seminars organized/ conducted by NWA during 2023-24 is given at Annex-II.

### 6.3 Training and Capacity Building Activities planned visa-a-vis conducted during the Year 2023-24

The mandate of the Academy is that of organising/conducting training courses and workshops mostly in accordance with the training calendar prepared for every financial year (April to March). During the year 2023-24, 101 training programmes were organised by the NWA benefitting 9313 officials from various parts of the country.

A summary of the courses planned in the Training Calendar and those conducted by the Academy during the year is as below: Each course is coordinated by a faculty designated as Course Director under the overall supervision of Chief Engineer & Head.

Sr. No.	2023-24			Remarks
	Category of Training	Planned	Conducted	
1.	Cadre Training Programs for CWES Gr A & B officers	09	10	1 ITP for CWES Gr A for 34 weeks; 5 MCTPs, MCTP for JEs and AD-II
2.	Other Cadre Training Programs of officials of CWC/ other Organisations of DoWR, RD & GR	03	06	ITP for JEs of NWDA; CGWB, NERIWALM, Hydromet Cadre CWC & MTS of CWC
3.	Core Area Programs including under NHP, DRIP, IWEP, Webinars on Water Disputes	28	51	Programs under NHP, in collaboration with IEWP, NMCG, CMIS, DRIP etc., Webinar Series on ISWRD (16 weekly webinars), Webinar Series on International Water Cooperation (11 weekly webinars), Dam Safety Aspects etc.
4.	Non-Technical Programs	04	05	MDP, Overview of WRs, Post Retirement, RTI Audit, Workshops etc.
5.	DL on Basic Hydrological Sciences in association with WMO	2	1	Basic Hydrological Science for National and International Participants

6.	Financial and Works Management	4	06	Workshop & Webinars on Pension Matter, Delegation of Financial Powers, PFMS on e-module, Procurement challenges, e-Gem etc
7.	Mass Awareness Program (& Awareness Generation Webinars as directed by Ministry	09	10	For School Teachers, NCC Cadets & Others Stakeholders
8.	Synergisation with WALMI/IMTI/NEHARI	12	03	1 Program with NEHARI, 2 Programs with WALMI, Patna
9.	Customized Programs		06	Telangana, Leh & Ladhak, North Eastern Region, Assam Arunachal Pradesh, West Bengal, Bihar
10.	Faculty Development Program		01	As Follow-up of TNA Workshop, ToT for Training Managers from the State and Central Organisations
11.	As per ACBP of DoWR, RD & GR (CBC)		01	Residential Training of Water law & River Valley Disputes (as per CBC) ACBP
12.	TNA workshop		01	Conducted as a part Training Oversight Committee - Synergization
<b>Total</b>		<b>72</b>	<b>101</b>	

### 6.3.1 Workshop on Training Need Assessment

A National-Level Workshop on "Training Needs Assessment (TNA) for Water Resources Development & Management (WRD&M)" was conducted on 7th July 2023 at the SCOPE convention centre, New Delhi jointly by training institutions under the Ministry of Jal Shakti, Department of Water Resources, RD & GR viz., National Water Academy (NWA), Pune of the Central Water Commission (CWC), Rajiv Gandhi National Ground Water Training & Research Institute (RGNGWTRI), Raipur of the Central Ground Water Board (CGWB) and the North Eastern Regional Institute of Water and Land Management (NERIWALM), Tezpur.



*Secretary, DoWR, RD & GR, MoJS inaugurating the Workshop on TNA at SCOPE convention centre, New Delhi along with other dignitaries*

Secretary, Ministry of Jal Shakti, Department of Water Resources, RD & GR presided over the event and urged the necessity of synergy of all training institutes of the country for addressing the capacity building needs for sustainable development and efficient use of water resources to match with the growing demands.

Member (RM), CWC and Chairman, CGWB also graced the event. CE HRM, CWC delivered the welcome address. The main aim of this 'TNA' workshop was to gather inputs regarding the training needs of various Government Departments/Organisations/Institutions related to Water Resources Development & Management so as to comprehensively assess the training needs across the country.

The initiative was led by the Ministry of Jal Shakti, Department of Water Resources, RD & GR in line with the vision of the Hon'ble Prime Minister of India Prime Minister of India i.e. "Mission Karmayogi". This activity also catered for the vision of the Department to improve the efficacy of the training institutes and strengthen the synergy among these three institutes.



The plenary session of the "Training needs assessment" workshop had 12 presentations of speakers drawn from different organisations like CWC, WALMIs, IMTIs, State WRDs, NGOs, State Engineering Research institute, etc. The training needs of these organisations were presented covering the competency gaps, priority areas for training, training and non-training interventions required, need for collaborations etc. Most of the WALMIs is highlighted the need for an umbrella institution to act a focal point for training and capacity building synergization.



For the first time, one day National Level “Training Need Assessment” Workshop to assess the training needs of Water Resources Sector was conducted in Delhi. 176 participants from Central, State Organisations, WALMIs/IMTIs, academic institutions, NGOs etc., attended the Workshop.

Five breakaway sessions were conducted to discuss the training needs of the following five sub-sectors of WRD&M:

- i. Irrigation Water Management & Water Use Efficiency (IWM & WUE)
- ii. Dam Safety Aspects
- iii. Participatory Irrigation Management
- iv. Ground Water Resource Assessment & Management
- v. Advanced and Emerging Technologies & their Application in WRD&M

Based on the inputs received during the workshop from different stakeholders, a comprehensive TNA Report has been prepared and submitted to Ministry.



*Dignitaries during the Workshop on Training Need Assessment.*

### **6.3.2 CTP – Induction Training Program CWES Group A Probationary Officers**

The NWA, CWC, Pune (erstwhile CTU) has been entrusted with mandate of conducting the Induction Training Program (ITP) for CWES Group A Probationary Officers since 1995. With the formation of NWA in 2001, the full ITP is conducted at NWA, Pune, providing young, talented CWES officers with a broad, modern foundation. The residential training environment at NWA fosters a strong sense of ownership and belonging among officers towards CWC, while developing camaraderie that aids in overcoming future challenges in demanding assignments.

Since 2018, ITP officers after their selection through Engineering Service Examination conducted by UPSC have been reporting directly to NWA, Pune, with three batches having done so far. From 1995 to date, 22 batches of ITP, ranging from the 12<sup>th</sup> to the 32<sup>nd</sup>, have successfully completed the program



To address the dynamic challenges of the water sector, the ITP encompasses all facets of Water Resources Development and Management. It provides a strong foundation in the fundamentals of the water sector as managed by CWC and DoWR, RD & GR, while also equipping officers with technical, leadership, and managerial capabilities essential for governance roles. The program enables officers to approach water sector challenges professionally, instills the culture and values of engineering services, and offers exposure to organizational objectives and operations. It transforms engineers into competent water resources managers with a spirit of professional camaraderie and a shared commitment to managing the water sector effectively. The ITP spans a duration of 34 weeks.



The primary objective of the ITP is to develop capable human resources who can lead integrated and sustainable development and management of India's water resources through cutting-edge technology, competency, and effective stakeholder coordination. The program provides Probationary Officers with a strong foundation in the water sector, leadership, and managerial capabilities, enabling them to meet future challenges in water governance. Emphasis is placed on technology, strategic issues, policies, water sector reforms, and management services, shaping officers into efficient water managers with a professional approach. The ITP aims to achieve the following objectives:



*Sh. Kushvinder Vohra, Chairman (CWC) & Ex-Officio Secretary to the Government of India, virtually inaugurated the ITP*

- Enhancing professional competencies to improve individual and organizational effectiveness;
- Orienting CWES officers to emerging water resources sector challenges, values, principles, and functional priorities;
- Promoting awareness of engineering specifications and responsiveness to socio-economic and professional contexts;
- Developing professionalism, responsiveness, and the right attitude among CWES officers.

During the year 2023-24, 33<sup>rd</sup> ITP was conducted which was attended by 09 Probationary officers for duration 34 weeks starting from 24 April 2023 – 08 December 2023.



*Special Secretary, Ministry of Jal Shakti, Department of Water Resources, RD & GR visited NWA, Central Water Commission reviewed the activities of NWA, followed by interactions with CWES Group A probationers and, a Mango sapling was planted in the premises*

The ITP for CWES (Group A) Probationary Officers is a flagship program of NWA, which has been continuously refined and enriched with new modules based on feedback from various forums and officers. It is designed to equip CWES Group A Probationary Officers with the knowledge, skills, and leadership qualities essential for the effective governance of India's water resources. Since its inception, the program has continuously evolved to meet the dynamic needs of the sector, incorporating a holistic blend of technical, managerial, social, and policy-related aspects of water resources development and management. The content and structure of the ITP,

approved by the Program Advisory Committee chaired by the Chairman of the Central Water Commission (CWC), follows a structured curriculum that covers core disciplines of the water sector. The module coverage and content of ITP is enclosed as Annex-III.





*Special Secretary, Ministry of Jal Shakti, Department of Water Resources, RD & GR visited NWA, Central Water Commission reviewed the activities of NWA, followed by interactions with CWES Group A probationers and, a Mango sapling was planted in the premises*

## **Comprehensive Curriculum & Training Modules**

The ITP curriculum is structured into multiple modules to ensure a comprehensive and multidisciplinary learning experience. The key modules include:

- Orientation to Perspectives in Water Resources Sector
- Human Resources Management (HRM)
- River Management (RM) (Including field attachment with CWC Division Office)
- Water Planning and Projects (WP&P)
- Design and Research (D&R)
- Project Work on River Management, Water Planning and Projects & Design and Research (D&R)
- Project Appreciation Visits (Including key national water projects like the Farraka Barrage, Tehri Project, Sardar Sarovar Project, Polavaram Project, Koyna Hydro Electric Project, and various Survey & Investigation project sites in the North-East region)
- Customized Modules at External Institutes (RGNGWT&RI, Raipur on “Ground Water Management” and NERIWALM, Tezpur on “Soil-Crop-Water Management & Agricultural Engineering”)

These 34-week-long modules are designed to provide officers with:

- ✓ Technical knowledge of water resource planning, project design, hydrological modeling, and climate resilience.
- ✓ Field exposure to large-scale infrastructure projects and real-world water management challenges.
- ✓ Leadership & managerial skills for decision-making in complex governance scenarios.
- ✓ Innovative Learning & Leadership Development

To enhance learning outcomes, the ITP integrates several innovative training components, ensuring practical, experiential, and interdisciplinary exposure:



*Field Attachment with BBO, CWC for 1 week with an aim of equipping these officers with a comprehensive understanding of survey and investigation works undertaken by the CWC*

**Field Attachments & Project Appreciation Visits :**Field Attachment component provides hands-on experience in hydrological observations, data collection, and analysis at key field sites. The Project Appreciation visits component provides officers with first hand exposure to various water resource projects across different regions of India. This initiative helps officers understand the engineering, socio-economic, and environmental dimensions of water management projects. The duration of visits is structured to allow a mix of classroom learning and on-site project exposure to enhance practical understanding.



Visit to Tehri Hydropower Complex – THDC India Limited to Tehri Dam & HEP (1000 MW) and Koteshwar Dam and HEP (400 MW)



Customized Module at NERIWALM on “ Soil -Crop-Water Management and Agricultural Engineering” at NERIWALM under Synergy



*5 days Project Appreciation visit to t Polavaram Project. The primary objective of this visit was to provide ITP officers with a profound insight into the intricate challenges encountered during the construction of the Project*

**Leadership & Managerial Training :** Recognizing the importance of leadership in public governance, the ITP incorporates:

- ✓ Leadership Games & Activities (Nurturing teamwork and decision-making skills)
- ✓ Group Discussions & Open House Sessions (Encouraging critical thinking and policy discussions)
- ✓ Management Development Programs (MDP) (Designed to build leadership, communication, and crisis management skills through experiential outbound training)

- ✓ Ethics in Public Governance Module (Conducted by DoPT-approved organizations, focusing on integrity, accountability, and ethical leadership in government services)



3-day "Outbound Management Development Program" at Garudmaachi to reflect, reframe, recharge, build a greater sense of solidarity, and realise novel strategies to boost effectiveness.

**Specialized Workshops & Training Sessions** ;To develop a well-rounded skill set, officers undergo:

- ✓ Communication Workshops: Enhancing public speaking, technical presentation, and written communication skills.
- ✓ IT & Digital Training: Exposure to the latest digital tools and software for data analysis and decision-making.
- ✓ Policy & Governance Sessions: Interactive lectures with senior officials and experts on India's water governance framework.

**Extracurricular & Holistic Development Activities;** The ITP strongly emphasizes the overall personality development of officers. Activities include:

- Trekking & Outdoor Activities (To build resilience, physical fitness, and team coordination)
- Yoga & Well-being Sessions (To promote stress management and mindfulness in leadership roles)
- Cultural & Literary Activities (Including music, sports, and creative competitions)
- E-Souvenir Compilation (Encouraging creative contributions and documentation of key learning experiences)
- Assignments & Batch Leadership Initiatives

To instill a sense of responsibility and leadership, various batch-level roles and assignments are introduced:

- *Batch Representatives:* Officers are selected as batch coordinators to oversee training activities, fostering responsibility and peer collaboration.
- *Escort Officers:* Officers assigned as liaison coordinators for visiting faculty members, ensuring effective interactions with guest experts.
- *Project Work & Assignments:* Officers work in groups to prepare technical reports, case studies,

Throughout the training program, continuous assessments and interactive feedback mechanisms ensure a high-quality learning experience. Officers are evaluated on:

- *Technical Knowledge Assessments* (Covering key water resource engineering concepts)
- *Project Presentations & Thesis Evaluations* (Encouraging problem-solving & research-based learning)
- *Leadership & Participation Scores* (Recognizing engagement in group discussions, workshops & activities)
- *Final Valedictory Recognition* (Outstanding performers are awarded Gold, Silver & Bronze Medals for excellence in training and leadership roles)

The ITP at NWA stands as a foundation in shaping proficient water resource managers by blending technical expertise, leadership development, and hands-on experience. With guidance from expert faculty and exposure to real-world project challenges, the program ensures that

officers are well-prepared to tackle complex challenges in water management, contributing to sustainable and efficient water resource governance with excellence and integrity. The ITP serves as a transformational journey for CWES officers, preparing them to lead the sector with professionalism, innovation, and a commitment to public service.



### 6.3.3 CTP –Mandatory Cadre Training Program for CWES Group A

The Government of India's Policy to impart training at various levels to enrich the officers with modern approach to governance and to equip them to cater to the needs the society. Accordingly, Govt of India has issued a comprehensive Mandatory Cadre Training Plan for CWES Group A Services for effecting trainings in the Cadre of the CWES. DoWR, RD & GR vide OM No.A-33025/13/2017.E.I dated 27.02.2019 has issued guidelines. NWA is mandated to conducted the approved MCTP , the MCTP is to be conducted for four levels of officers enumerated as under :

Sr. No.	MCTP Level	Target Level	Brief Coverage
1	Level 1	JTS (AD/AEE/ACs) (4 Weeks)	<ul style="list-style-type: none"> <li>• Development of Human Resource &amp; Financial Management and Core Competency – 2 Weeks at NWA</li> <li>• Development of Managerial Competencies – 1 Week at IIM Ahmadabad</li> <li>• Latest and New Technology – 1 Week at IIT Roorkee</li> </ul>
2	Level 2	STS (DD /EE /DC) (3.6 Weeks)	<ul style="list-style-type: none"> <li>• Refresher Course – 1 Week at NWA</li> <li>• Latest &amp; New Technology – 1 Week at IISC, Bangalore</li> <li>• Management Training – 1 Week at IIM Bangalore</li> <li>• Foreign Training at Asian Institute of Technology, Bangkok – 1 Week</li> <li>• 3 days at the end for Course Evaluation and Feedback</li> </ul>
3	Level 3	JAG (Director /SE/SJC) (3.6 Weeks)	<ul style="list-style-type: none"> <li>• Refresher Course – 1 Week at NWA</li> <li>• Water Governance – 1 Week at IIM Calcutta</li> <li>• Latest Trend in Water Sector – 1 Week Foreign Training at IHE, Delft, The Netherlands</li> <li>• 3 days at the end for Course Evaluation and Feedback</li> </ul>
4	Level 4	SAG (CE/ Commissioners) (1 Week)	<ul style="list-style-type: none"> <li>• “Management in Government” at IIM, Ahmedabad</li> </ul>

During the year 2023-24, 5 MCTPs viz MCTP Level 1 – 1 No; MCTP Level 2 – 1No., MCTP Level 3 (Nos); and MCTP Level 4 (1 No) were conducted.

### 6.3.3 CTP –Mandatory Cadre Training Program for CWES Group B

A Comprehensive Mandatory Career Training Plan (MCTP) for Central Water Engineering (Group B) Service has been introduced in Central Water Commission. CWC vide OM No.A-33025/8/2019-TRNG DTE-Part(1) dated 10.01.2023 has issued detailed guidelines along with approved course

content/duration. NWA is mandated to conduct MCTP. The approved MCTP is to be conducted at two levels as enumerated as under :

Sr. No.	MCTP for	Duration	Brief Coverage
1	Junior Engineers	4 Weeks	1 <sup>st</sup> week: Establishment, Administrative & Financial Management. 2 <sup>nd</sup> week: Personality Development. 3 <sup>rd</sup> week: Hydrological Observations and data Management and 4 <sup>th</sup> week: Development of Core Technical skills.
2	AD-II/SDEs	4 Weeks	1 <sup>st</sup> week: Establishment, Administrative & Financial Management, Personality Development. 2 <sup>nd</sup> week : Hydrometry and Survey & Investigation. 3 <sup>rd</sup> week Hydrology, Flood management & GIS and 4 <sup>th</sup> week Design of water resource Projects, Appraisal & Monitoring.

**During the year 2023-24, 4 MCTPs viz MCTP for JEs - 3 Nos; MCTP AD-II/SDEs - 1No. were conducted.**

A total of 10 Cadre Trainings were conducted with a participation of 316 officers, against approved 09 Nos. as detailed below :

#	Details	Date of Program	Number of Participants	Duration in Weeks
✓	MCTP for Junior Engineers of CWC	10 April -04 May 2023	39	4
✓	Induction Training Program (ITP) for CWES Gr A Probationary Officers	24 April -08 December 2023	9	34
✓	MCTP Level 2 for JAG CWES Group A Officers	04-15 September 2023	23	2
✓	MCTP for Junior Engineers of CWC	16 October-10 Nov 2023	50	4

✓	MCTP Level 2 for JAG CWES Group A Officers	22 Nov – 02 Dec 2023	26	2
✓	Mandatory Cadre Training for AD-II/SDE	28 Nov-22 Dec 2023	63	4
✓	MCTP for Junior Engineers of CWC	28 Nov-22 Dec 2023	24	4
✓	MCTP Level 3 for STS CWES Group A Officers	04-22 December	24	3
✓	MCTP Level 4 for SAG CWES Group A Officers	08-12 January 2024	10	1
✓	Mandatory Cadre Training for Junior Engineers of Central Water Commission (Batch IV)	09 Jan -02 Febr 2024	48	4
<b>Total</b>			<b>316</b>	

### 6.3.5 Other Cadre Training Programs of Officials of CWC and Other Organisations of DoWR, RD & GR

NWA in addition to the Cadre Training Programs for CWES Group-A and Group-B officials of CWC/ DoWR, RD & GR is also mandated to conduct Cadre Training Programs of other Cadre of CWC and for the organization functioning under DoWR, RD & GR..

**During the year 2023-24, 06 other Cadre Training Programs were conducted benefitting 157 numbers by NWA against the approved 03 as detailed below :**

#	Details	Date of Program	Number of Participants	Duration in Weeks
1.	Induction Training Program for Assistant Engineers / Junior Engineers of NWDA	17-28 April 2023	22	2
2.	Overview of Surface Water for NERIWALM officers	26 to 30.June.23	11	1
3.	Induction Training Program Newly appointed MTS of CWC	31 July - 11 Aug 2023	59	2
4.	Induction Training Program for CGWB Officers	01 -05 January 2024	39	1

5.	RI-Level1 for SA-HM For Hydromet Cadre of CWC	11-16 & 18 Mar 24	11	1.4
6.	RI-Level1 for SA-HM For Hydromet Cadre of CWC	12-16, 18-19 Mar 24	15	1.4
<b>Total</b>			<b>157</b>	

### 6.3.6 Faculty Development Program: As a follow-up of TNA Workshop,

Faculty Development Program for Capacity Building & Professional Development of Trainers was conducted for the first time at NWA which received overwhelming response from the Central, State Training Institutes, WALMIs/IMTIs etc. The program aimed to equip the trainers and professionals dealing with training activities in the field of water resource management with the knowledge and capabilities necessary for effective planning, delivery, and evaluation of training activities.

The program covered a diverse range of crucial topics such as understanding trainer development and the concept of Training of Trainers, distinguishing between training and education, and comprehending learning principles with aim of providing systematic approach to training, including training needs assessment, training methods, and the design of effective training programs and learning units.

33 Faculty from various training institutes, including those under the Ministry of Jal Shakti, Department of Water Resources, RD & GR, as well as Water and Land Management Institutes (WALMIs) and Irrigation Management Training Institutes (IMTIs), and state training institutes etc. participated in this program.



### 6.3.7 Specialized Programs for North-Eastern Region and Hilly States

During 2023-24, **five specific trainings were conducted to address the training and capacity building needs of North Eastern and Hilly States** . Total 273 officers attended these 5 programs:

**i. Familiarization with DPR Preparation of SMI, FMP, AIBP, RRR Projects at Leh (UT of Ladakh) (05-09 June 2023) – 55 Participants**

In line with the initiatives of Chairman, Central Water Commission (CWC), and Ex-Officio Secretary to the Government of India, to formulate an action plan addressing short-term, medium-term (2030), and long-term (2047) challenges in the water resources sector—including capacity building and training for officers from special areas such as the Northeastern states, Jammu & Kashmir,



*Valedictory function presided over by Dr. Pawan Kotwal, Adviser to the Lt. Governor, Ladakh, and Er. Rajiv Kumar, Director, CWC, New Delhi*

and Ladakh—a Training-cum-Workshop on "Familiarization with DPR Preparation of SMI, FMP, AIBP, and RRR Projects" was conducted from 5th to 9th June 2023 for officials of the Union Territory of Ladakh.

This program was organized in response to a specific request from the **UT Administration of Ladakh** and aimed at enhancing the technical expertise of officials involved in project planning and implementation. The program was attended by fifty five officers form Union Territory of Ladakh. The program was found to be very useful and officers gain the knowledge and queries related tod DPR preparation were cleared by the expert faculty from CWC-HQ and Field Office of CWC.

## ii. Survey, Investigation and Preparation of Detailed Project Report for River Valley Projects – at Guwahati for NE Region : (26-30 June 2023) – 20 Participants

This program was organized as a follow-up to the directives of Sh. Kushvinder Vohra, Chairman, Central Water Commission (CWC), and Ex-Officio Secretary to the Government of India, to address the training and capacity-building needs of special regions such as the Northeastern states, Ladakh, Jammu & Kashmir, and other Union Territories. It was conducted as part of the broader action plan initiated to tackle short-term, medium-term (2030), and long-term (2047) challenges in the water resources sector.



The training program was inaugurated by Sh. Kushvinder Vohra through video conferencing (VC). Additionally, Sh. Syedin Abbasi, Additional Chief Secretary, Government of Assam, addressed the participants via VC and commended CWC's capacity-building initiatives.

The program featured a comprehensive curriculum, covering:

- CWC guidelines for the preparation of Detailed Project Reports (DPRs)

- Various surveying methods and investigation techniques
- Key considerations for DPR preparation, including geological investigations, hydrological studies, and power potential assessments
- Minimum environmental flow requirements, Environmental Impact Assessment (EIA), and material surveys for water resource projects
- Hydrodynamic modeling using HEC-RAS
- Irrigation management, GIS & Remote Sensing applications, with hands-on sessions
- Planning and design of canals, canal alignment, embankments, and anti-erosion works

This initiative aimed to equip officials with the necessary technical knowledge and practical skills to enhance water resource planning and project implementation in these regions.

**iii. Survey, Investigation and Preparation of DPR for River Valley Projects - at Guwahati for State of Assam (21-25 August 2023) – 61 Participants**

In pursuance of the directives from the Chairman, Central Water Commission (CWC), to prioritize the training and capacity-building needs of special regions, including the Northeastern States, a specialized training program was developed and conducted to equip participants with essential expertise in the preparation of Detailed Project Reports (DPRs).

The program featured a comprehensive curriculum, covering key aspects such as:

- CWC guidelines for DPR preparation
- Various surveying methods and investigation techniques
- Critical considerations for DPR investigations, including geological assessments, hydrological studies, and power potential evaluations
- Minimum environmental flow requirements, Environmental Impact Assessment (EIA), and material surveys for water resource projects
- Hydrodynamic modeling using HEC-RAS
- Irrigation management, GIS & Remote Sensing applications, with hands-on sessions
- Planning and design of canals, canal alignment, embankments, and anti-erosion works



Participants expressed their sincere appreciation to the National Water Academy (NWA) for providing an exceptional learning experience, enriching their knowledge and enhancing their technical capabilities.

**iv. Flood Protection, Anti-Erosion and River Training Works – at NEHARI for NE Region : (04-08 December 2023) (23 Participants)**

In line with the emphasis placed by the Chairman, Central Water Commission (CWC), on the training and capacity building of officers from the Northeastern region of India, a comprehensive

five-day training program titled "Preparation of DPRs for Flood Protection, Anti-Erosion, and River Training Works" was conducted at NEHARI, Guwahati. This program was conducted by the National Water Academy (NWA), CWC, in collaboration with NEHARI, Brahmaputra Board.

The primary objective of this training program is to enhance the technical capabilities of officers engaged in flood protection, anti-erosion, and river training works in the Northeastern region. The curriculum has been meticulously designed to provide participants with the essential knowledge and skills required for the preparation of Detailed Project Reports (DPRs).

The comprehensive curriculum covers:

- DPR guidelines for flood management projects
- Flood protection, anti-erosion measures, and river training works
- Design aspects of flood embankments, bank revetments, spurs, and drainage improvement works
- Cost estimation and unit rate analysis for flood management projects
- Catchment delineation using QGIS
- Non-structural measures for flood risk mitigation
- Hands-on exercises on e-PAMS for project appraisal and monitoring
- Hydraulic model studies for flood management
- Legal and regulatory aspects related to flood management

This initiative aims to strengthen the technical expertise and decision-making capabilities of officers, enabling them to effectively plan and implement flood protection and river training.



**v. Application of Remote Sensing and GIS- at Itanagar for Govt of Arunachal Pradesh. (16-20 October 2023) : 99 Participants**

As a follow-up to the directives of the Chairman, Central Water Commission (CWC), to focus on the training and capacity-building needs of special regions such as the Northeastern States, Union Territory of Ladakh, Jammu & Kashmir, and others, a five-day customized training program on “Application of Remote Sensing & GIS” was conducted by the National Water Academy (NWA), Central Water Commission (CWC), at Itanagar for officers of the Water Resources Department, Arunachal Pradesh.

This program was organized in response to a specific request from the Water Resources Department, Government of Arunachal Pradesh, with the objective of equipping participants with essential knowledge and practical skills in remote sensing and GIS applications for water resource management.



The training covered a comprehensive range of topics, including:

- Fundamentals of Remote Sensing & GIS
- Hands-on exercises using QGIS
- Working with different types of spatial data
- Utilization of open-access satellite imagery and data sources
- Georeferencing, digitization, and basic spatial analysis
- Map creation and visualization techniques

- Hydrological modelling and SWAT modelling
- Watershed properties analysis
- Various practical sessions to reinforce learning

The faculty for the program comprised in-house experts from the National Water Academy and renowned scientists from the National Institute of Hydrology (NIH), ensuring high-quality instruction and knowledge dissemination. This initiative underscores CWC's commitment to strengthening technical capacity in special regions, enabling officers to effectively leverage remote sensing and GIS tools for enhanced water resource planning and management.

### 6.3.8 Capacity Building needs of Specific State

During 2023-24, following **four trainings were conducted to address the specific training and capacity building needs of the State Government officials at state location** were conducted. Total of 133 officers participated in these four programs.

**i. Introduction to Google Earth Engine for WRD. Govt. of AP at Vijayawada : 24 - 26 May 2023 (40 Participants)**

A three day training workshop on 'Introduction to Google Earth Engine' was conducted for officials of Water Resources Department (WRD), Govt. of Andhra Pradesh by AP SW, an implementing agency of the NHP, in collaboration with National Water Academy, Central Water Commission, Pune during 24-26 May, 2023. Topics covered during the program include 'Basics of Remote Sensing', 'Overview of Google Earth Engine (GEE) and GEE Code Editor', 'Working with

Raster and Vector Data in GEE' and 'Application of GEE in Water Resources Management'.



**ii. Preparation of DPR for Flood Management, River Training Works, Anti-erosion for WRD of Govt of Bihar at WALMI, Patna : 29 January -02 February 2024 (26 Participants)**

As per the directives of the Chairman, Central Water Commission (CWC), a comprehensive five-day training program on "Preparation of DPRs for Flood Protection, Anti-Erosion, and River Training Works" commenced today at WALMI, Patna.

This program is being conducted by the National Water Academy (NWA), in collaboration with WALMI, Patna, for officers of the Water Resources Department (WRD), Government of Bihar, who are responsible for flood protection, anti-erosion, and river training works.

The primary objective of this training initiative is to equip participants with the necessary expertise for the meticulous preparation of Detailed Project Reports (DPRs) in strict adherence to CWC guidelines.



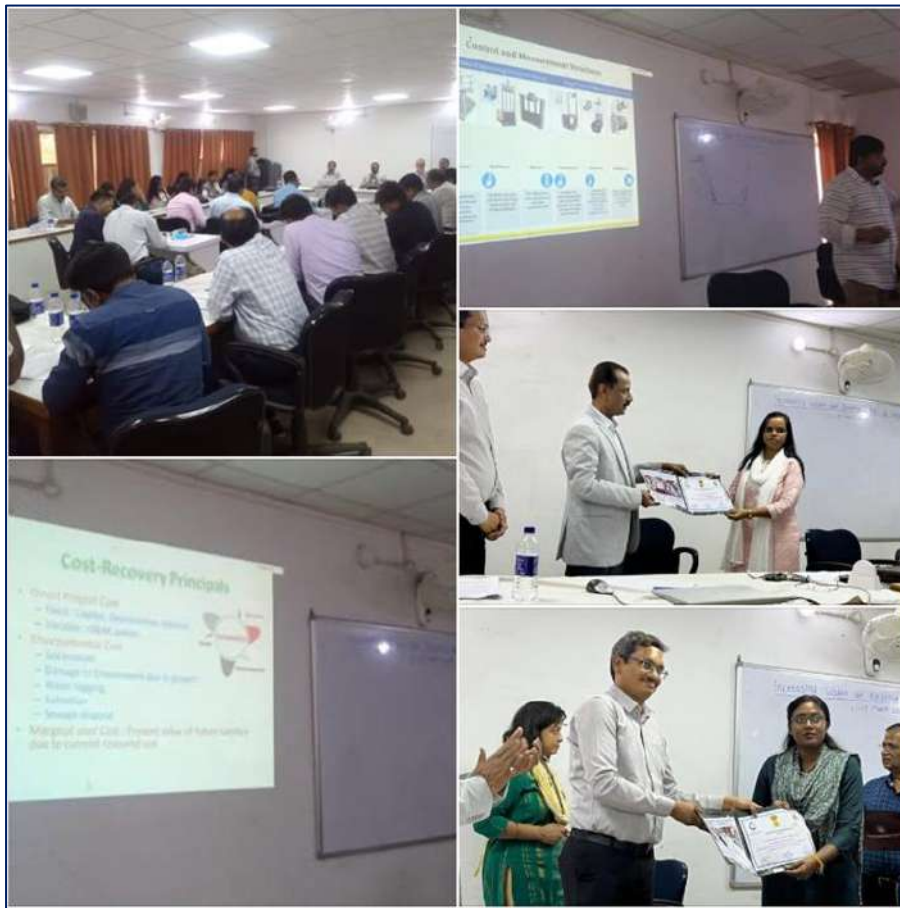
The comprehensive curriculum covers a wide range of topics, including:

- CWC Guidelines for the preparation of DPRs for flood management projects
- Design aspects of flood embankments, bank revetments, spurs, and drainage improvement works
- Cost estimation and unit rate analysis for flood management
- Non-structural flood management measures
- Hands-on exercises using HEC-RAS for hydraulic Modeling
- Hydraulic model studies and their applications
- Legal aspects of flood management
- Introduction to GIS and hands-on training on catchment delineation, contour map generation, and spatial analysis

A total of 26 officers from the Water Resources Department, Government of Bihar, including Superintending Engineers (SEs), Executive Engineers (EEs), and Assistant Executive Engineers (AEEs), are actively participating in the program.

This initiative underscores CWC's commitment to capacity building, ensuring that officers are well-equipped with technical knowledge and practical skills to enhance flood management planning and execution in Bihar.

**iii. Increasing WUE in Irrigation Sector for Govt of Bihar at WALMI Patna : 11-15 March 2024 (26 Participants)**



As a follow-up to the directives of the Chairman, Central Water Commission (CWC), the National Water Academy (NWA) organized a training program on "Increasing Water Use Efficiency (WUE) in the Irrigation Sector" in collaboration with the Water and Land Management Institute (WALMI), Patna, from March 11 to 15, 2024, at Patna. The program was attended by 26 officers of Superintending Engineer (SE), Executive Engineer (EE), and Assistant Engineer (AE) ranks from the Water Resources

Department, Government of Bihar.

The training program featured expert resource persons from NWA, CWC, Karnataka Engineering Research Station (KERS), WALMI-Aurangabad, Indian Space Research Organisation (ISRO), Central Designs Organisation (CDO), WRD Maharashtra, Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, and a consultant associated with the Indian Network on Participatory Irrigation Management (IndiaNPIM).

The sessions covered a comprehensive range of topics related to enhancing water use efficiency (WUE) in irrigation, including:

- Planning, design, operation, and maintenance of irrigation projects
- Command area development works

- Participatory irrigation management (PIM)
- Water auditing and benchmarking of irrigation projects
- Micro-irrigation systems and design aspects of pipe irrigation systems
- Rationalization of water rates
- Current status of WUE assessment in irrigation projects
- CWC guidelines for WUE assessment and initiatives by the Ministry of Jal Shakti/CWC
- Strategies for increasing WUE
- Application of Remote Sensing & GIS tools for improving irrigation efficiency

This training program reflects CWC's commitment to capacity building and sustainable water management, equipping officers with critical technical knowledge and practical skills to enhance water use efficiency in irrigation systems.

**iv. RS & GIS applications in WRM for Irrigation & Waterways Department, Govt of West Bengal under WBMIFMP at Kolkata; (29 January -02 February 2024) (15 Participants)**

In line with the directives of the Chairman, Central Water Commission (CWC), who envisioned capacity-building programs for State Government officials at state locations, and as a follow-up to the Training Needs Assessment (TNA) Workshop, the National Water Academy (NWA) organized a five-day customized training program on "Remote Sensing and Geographical Information System (GIS) Applications in Water Resources Management." This program was conducted at Jalsampad Bhawan, Kolkata, for officials of the SPMU-West Bengal Major Irrigation and Flood Management Project (WBMIFMP), Irrigation & Waterways Department (I&WD), Government of West Bengal (GoWB).

WBMIFMP is an initiative implemented by the I&WD, GoWB across five districts (East and West Bardhaman, Howrah, Bankura, and Hooghly) within the Damodar Valley Command Area (DVCA), with financial support from the World Bank and the Asian Infrastructure Investment Bank (AIIB).

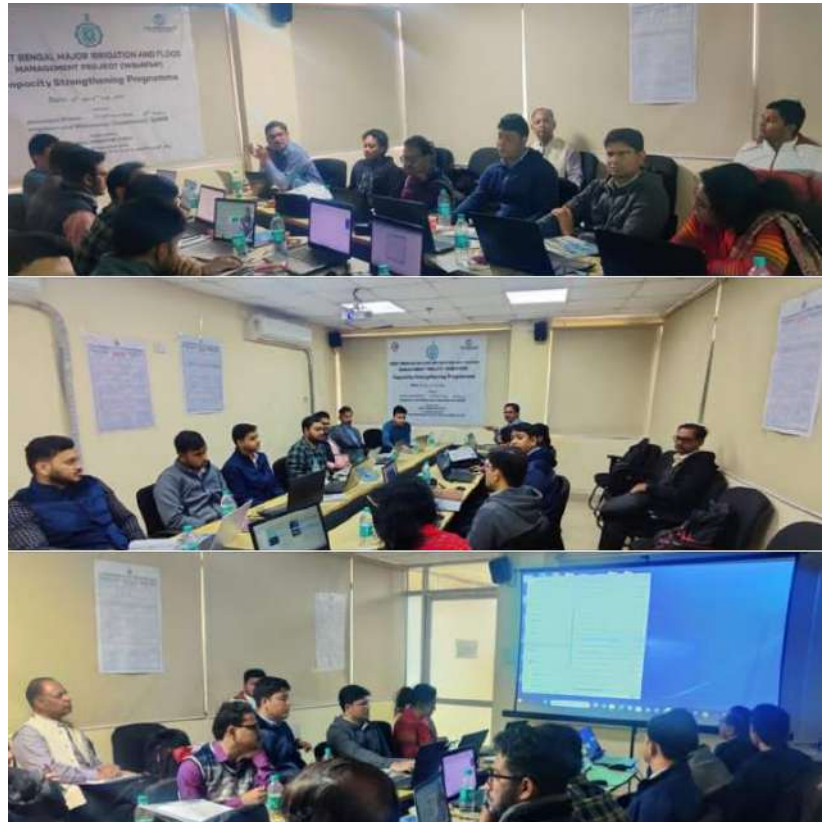
The project aims to enhance irrigation services, strengthen flood protection, and mitigate climate change impacts.

The primary objective of this training program is to equip participants with practical knowledge of free and open-source software tools and platforms for geospatial data analysis, enabling informed decision-making at the basin and command scale. A total of 15 officers from WBMIFMP and I&WD, GoWB are actively participating in the program.

The training curriculum covered a wide array of topics, including:

- Fundamentals of Remote Sensing (RS) and GIS
- Open-access satellite imagery and data sources
- Hydro-processing of Digital Elevation Models (DEM), including catchment delineation
- Time series analysis and change detection
- Flood mapping and monitoring
- Drought monitoring
- Waterbody extraction and mapping
- Semi-supervised land cover classification
- Irrigation water management through Evapotranspiration (ET) analysis
- Creating and deploying Google Earth Engine (GEE) applications
- Customizing QGIS with Python

The program features extensive hands-on training using Google Earth Engine (GEE), a planetary-scale geospatial analysis platform, along with QGIS, providing participants with practical expertise in advanced geospatial analysis.



This initiative underscores NWA's commitment to enhancing the technical capacity of state officials, ensuring the effective application of RS and GIS technologies in water resources management.

**v. Interactive Sessions with the Group A Officers of WRD, Govt of Maharashtra undergoing 52 Weeks ITP visited NWA, Pune as a part of their Study Tour : (26 Officers) (01 November 2023)**

In line with the directives of the Chairman, Central Water Commission (CWC), a Memorandum of Understanding (MoU) was signed between the National Water Academy (NWA), CWC, and the Maharashtra Engineering Training Academy (META), WRD, Government of Maharashtra in September 2023. This MoU aims to foster collaboration in specialized training programs and public awareness initiatives to enhance the skills and expertise of water sector professionals.

As part of this initiative, Group 'A' Officers from the Water Resources Department (WRD), Government of Maharashtra, undergoing Induction Training at META, Nashik, visited NWA on 01 November 2023. A half-day interactive session was conducted, focusing on:

- The role of NWA, CWC in training and capacity building of water sector professionals.
- Emerging technologies and trends in the water sector to enhance efficiency and sustainability.

The session concluded with an open house discussion, a Q&A session, and an interactive dialogue with NWA faculty. The visiting officers gained valuable insights into cutting-edge technologies and their applications in water resources management, including:

- Artificial Intelligence (AI) & Machine Learning (ML) in water management
- IoT-based smart irrigation systems
- Use of Unmanned Aerial Vehicles (UAVs) for precision irrigation
- Internet of Things (IoT) applications in water management



- Google Earth Engine for precipitation and drought analysis
- Land use mapping and Geographic Information Systems (GIS) applications in Water Resources Development & Management (WRD&M)

This initiative strengthened collaboration between NWA and META and reinforced NWA's commitment to capacity building, technology adoption, and knowledge-sharing to advance the water sector in India.

### 6.3.9 Programs on specialized subjects

During the financial year **2023-24**, the **National Water Academy (NWA)** organized the following specialized training programs to enhance the technical capabilities of professionals in the water sector

CMIS Training	04-08 September 2023	25	1
Numerical Modelling using DELFT 3D Software under CMIS	22-24 Nov 2023	21	0.6
Pumped Storage Hydroelectric Project	08-12 January 2024	49	1

These programs focused on **strengthening technical proficiency** in areas such as **Capacity Management Information System (CMIS)**, **numerical modelling with DELFT 3D**, and the **planning & implementation of pumped storage hydroelectric projects**. The training sessions were designed to equip participants with the necessary knowledge and hands-on skills required to tackle emerging challenges in the water resources sector.



*Numerical Modelling using DELFT 3D Software under CMIS*



Pumped Storage Hydroelectric Project

### 6.3.10 Training Programs in Dam Safety Aspects

Consequent upon enactment of Dam Safety Act, initiatives were taken by NWA to create awareness on provisions of Dam Safety Act and also to build competencies of officials of dam owners. During the financial year 2023-24, the National Water Academy (NWA) organized a series of residential and distance learning programs focusing on dam safety, instrumentation, and the application of DHARMA (Dam Health and Rehabilitation Monitoring Application). These programs aimed to enhance the technical capabilities of professionals engaged in dam safety management. The following training events were conducted during the year :

#	Topic	Dates	Number of Participants	Duration in Weeks
<b>A)</b>	Residential Program			
1.	Dam Safety Aspects - An Overview (Customized for Gujrat)	17 -26 May 2023	25	1.8
2.	Dam Safety Aspects - An Overview	18-23 September 2023	55	1.2
3.	Dharma application related to Dam Safety Aspects	13-14 Feb 2024	39	0.4
4.	Dharma application related to Dam Safety Aspects	15-16 Feb 2024	57	0.4
5.	Dam Safety and Instrumentation	06-10 Nov 2023	20	1
<b>B)</b>	Distance Learning			
6.	Webinar on legal and institutional Framework of Dam Safety In India	25-26 July 2023	950	0.4
7.	Webinar on Dam Safety Aspects	12-13 Feb2024`	570	0.4
<b>Total (A+B)</b>			<b>1716</b>	

Total Participants: 1716 attended the programs on Dam Safety Aspects. These programs provided critical insights into dam safety regulations, risk assessment, instrumentation, and digital tools like DHARMA to ensure the sustainable management of dams across India.



*Chairman, Central Water Commission delivering inaugural address during the Webinar on Legal and Institutional Framework of Dam Safety in India*

### 6.3.11 New Areas of Training

During the year 2023-24, the National Water Academy (NWA) introduced training programs in new and emerging areas to address evolving challenges in the water resources sector. These programs were designed to enhance technical expertise, improve disaster management preparedness, and provide career guidance for officers nearing retirement. The following new areas were introduced during 2023-24 and programs were conducted :

#	Topic	Dates	Number of Participants	Duration in Weeks
1.	Sensitization program on Flood Disaster Management	05-06 October 2023	21	0.4
2.	Modernization of Irrigation System using RAP-MASSCOTE Approach	06-08 December 2023	18	0.6
3.	Post Retirement Prospects and Avenues for CWES Officers"	23-24 February 2024	14	0.4

2-day Sensitization Program on 'Flood Disaster Management' in hybrid mode for senior policy makers and urban planners was conducted for first time during 5-6 October, 2023. 21 participants from NDMA, various State Government Departments, and State Disaster Management Authorities attended the training program at NWA campus at Pune whereas a team of officers led by Sh. Harsh Gupta, Joint Secretary and Project Director, NCRMP, NDMA,



New Delhi joined the program through video conferencing. Faculty for the training program were drawn from Indian Institute of Science, Bangalore; Central Water Commission, New Delhi; Ministry of Jal Shakti, Department of Water Resources, RD & GR, New Delhi; National Remote

Sensing Centre, Hyderabad; Indian Institute of Technology, Mumbai and Tamil Nadu State Disaster Management Authority, Chennai.

The training program intended to sensitize policy makers and urban planners about flood vulnerability and risk assessment processes, and the tools and techniques for doing so. It also presented case studies that show how to effectively assess risk and use flood disaster management principles in the workplace.

For capacity building of Central and State Water Resources Departments/ Organizations in various approaches to modernization of irrigation systems, a three-day training workshop on 'Modernization of Irrigation Systems using RAP-MASSCOTE Approach' was conducted by National Water Academy, CWC, Pune from December 06-08, 2023.

CWC, Ministry of Jal Shakti, Department of Water Resources, RD & GR has taken up the Support for Irrigation Modernization (SIMP) initiative with the assistance of Asian Development Bank (ADB) to improve the Water Use Efficiency (WUE) of Major and Medium Irrigation (MMI) projects in the country, increase Crop Water Productivity and ultimately increase farmer's income. Under SIMP (Phase 2), Food and Agriculture Organization (FAO) developed RAP-MASSCOTE (Rapid Appraisal Procedure - Mapping System and Services for Canal Operation Techniques) methodology is being used for development of Irrigation Modernization Plans (IMP) for the first batch of 4 projects. The methodology consists of a series of steps for diagnosing performance and mapping the way forward in order to improve the service to users and the cost-effectiveness of canal operation techniques.

Dr. Daniel Renault and Shri M G Shivakumar, Irrigation Modernization Specialists from ADB SIMP consultant team were expert resource persons for conducting this training workshop which introduced the RAP-MASSCOTE methodology to the participants, review some of the technical aspects related to canal operation, take up in detail the steps involved in the methodology and how it yielded 'Out-of-the Box' thinking and solutions in case of some of the previous projects. Participants in the training workshop include officers from various Central and State Water Resources Departments/Organisations, WALMIs and other stakeholders.

These initiatives **broadened the scope of training at NWA**, integrating **flood disaster preparedness, modern irrigation techniques** to equip professionals with essential knowledge and skills for their respective domains.



**Post Retirement Prospects and Avenues for CWES Officers** is new program introduced during 2023-24. Recognizing the need to support officers of the Central Water Engineering Services (CWES) in planning their post-retirement career paths, NWA organized a specialized program on "Post Retirement Prospects and Avenues for CWES Officers" from 23-24 February 2024. The

program aimed to provide insights into various professional opportunities available after retirement, enabling officers to make informed career decisions. Key Aspects Covered in the Program

- Consulting and Advisory Roles – Opportunities in national and international organizations, government advisory roles, and independent consulting in the water sector.
- Entrepreneurship & Startups – Exploring business avenues in water management, environmental consulting, and infrastructure development.
- Academia & Research – Engaging in teaching, training, and research in engineering institutions and think tanks.
- Government and Public Sector Engagement – Possibilities of re-employment in committees, expert panels, and regulatory bodies.
- Financial Planning & Legal Aspects – Guidance on retirement benefits, taxation, pension schemes, and investment strategies.
- Social and Voluntary Work – Opportunities in NGOs, policy advocacy, and community-based water management initiatives.
- How to lead a healthy life after retirement

The interactive discussions and expert sessions provided participants with valuable perspectives on leveraging their expertise in meaningful and rewarding post-retirement engagements. The program was well-received, with participants appreciating the structured approach toward planning their transition beyond government service.

### 6.3.12 Non-Technical Trainings

NWA has been conducted Non-Technical Programs viz. Overview of Water Resources Sector of India for officials of CWC /DoWR, RD & GR, Mojs , “Management Development Programme” etc.

NWA, Pune has been identified as Nodal Agency for conducting Transparency Audit of the websites for proactive disclosure under RTI Act in line with the new Transparency Audit Software developed by CIC.

NWA has been conducting training-cum-workshop since 2019 for disseminating the knowledge



Sitting (L to R)  
S/Shri  
Standing (L to R)  
S/Shri

D Ranga Reddy, Gulshan Raj, S K Sibal, Shiv Nandan Kumar, Dr.B R Pilai, N M Krishnanunni,  
Guru Prasad J, G K Agrawal, Rishi Srivastav, Vijai Saran, T K Shivarajan, A K Pal, P S Kutiyal

and use of Transparency Audit Software to all the PIOs under DoWR, RD & GR. During year 2023-24, the following non-technical programs were conducted as detailed below:

1	Workshop on Pension related matters	20 July 2023	14	0.2
2	Workshop on Pension related matters	21 July 2023	15	0.2
3	Overview of Water Resources Sector of India for Non-Technical Officers	28 August - 1 Sept 2023	29	1
4	Management Development Program for Non-Technical Officers	25-29 September 2023	37	1
5	RTI & Transparency (DL)	21-22 March 2024	102	0.4

During 2023-24, the National Water Academy (NWA) undertook various training programs to enhance the professional competencies of non-technical officers and provide awareness on administrative and governance-related aspects. These programs covered pension-related matters, management development, transparency, and the broader water resources sector. These initiatives reflect NWA's commitment to capacity building beyond technical training,

addressing crucial aspects of governance, administration, and financial planning for government officers.

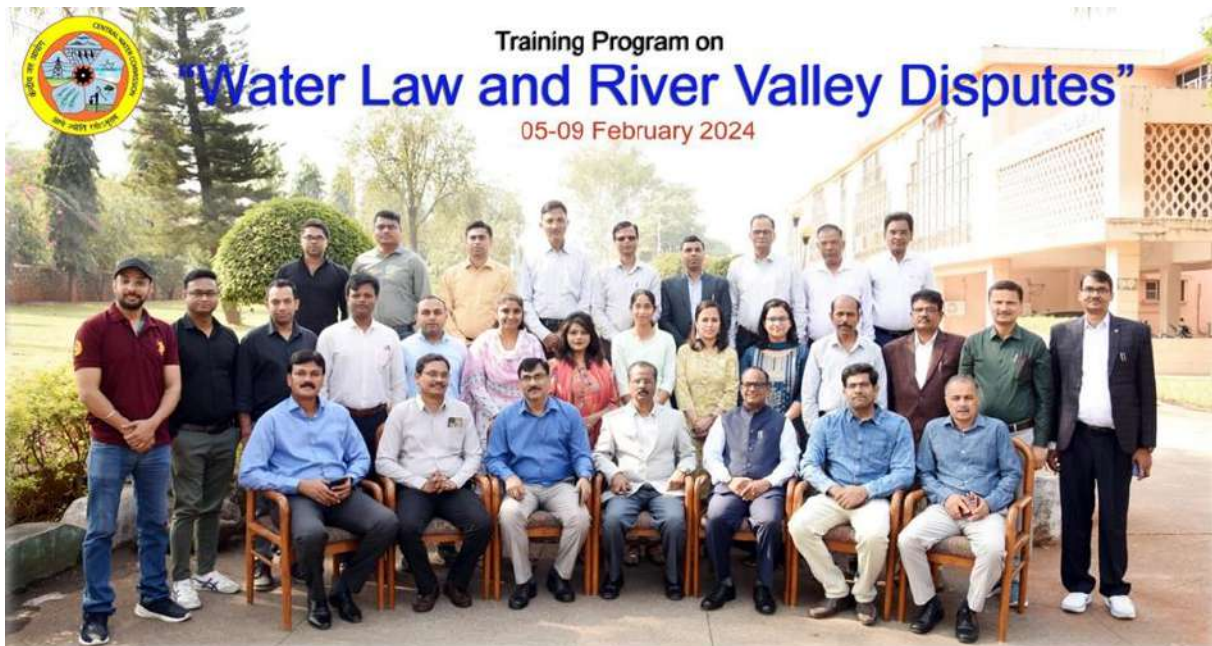
### 6.3.13 Programs as per Annual Capacity Building Plan of DoWR, RD & GR (CBC)

As per the Capacity Need Analysis (CNA) for the DoWR, RD&GR and its organizations and based on the CNA, Annual Capacity Building Plan for DoWR, RD&GR is prepared. As per CNA exercise, “International Convention / Laws of Water” emerged as one of the top priority Domain Competency for the officials of DoWR, RD&GR and its organization.

On the suggestion of CBC, one week course on the subject of “Water Law and River Valley Disputes” to enhance the competencies of the officials in the identified domain area, NWA has been identified as a training provider to conduct this course in off-line mode.

As a follow-up for the implementation of ACBP, NWA, CWC has conceptualized and formulated a five day training program on “Water Laws and River Valley Disputes” specially for the officers of DoWR, RD&GR and its organization. During the year 2023-24 on program was successfully completed with a participation of 25 officers. Twenty-five officers of various levels from DoWR, RD&GR, CWC, CSMRS & GRMB are actively participating in this program.

The primary objective of this training program is to equip participants with a comprehensive understanding of India's water laws, the mechanisms for addressing river valley disputes and International conventions. The program encompasses a diverse range of topics, including Constitutional & legal Provisions for Water Resources Development and Management in India, an Overview of Interstate aspects of Water Resources with a case study, Legal Framework for Participation in Irrigation Management (PIM) – Maharashtra Case Study, National Water Policy, Ground Water Regulations in India, Legal Initiatives by DoWR, RD & GR, Challenges in Interlinking of River Projects in India, History of Development of International Water Laws, Helsinki Rule 1966, Berlin Rule 2004, International Water Law, the UN Water Course Convention 1997 & Other instruments, Transboundary Cooperation-Case studies, Integrated Water Resources Management, Field Visit, etc.



#### 6.3.14 Core Area (Technical) Training Programs

In addition to Cadre Training and Mid-Career Training Programs (MCTP), the National Water Academy (NWA) is entrusted with conducting specialized technical training programs focusing on key areas of water resources development and management. These programs are meticulously designed based on Needs and suggestions from various State and Central Government organizations; Inputs from CWC/MoJS wings; Feedback from officers who have attended training programs at NWA.

As a nodal agency for training and capacity-building activities under flagship schemes of the Ministry of Jal Shakti (MoJS), such as: National Hydrology Project (NHP); Dam Rehabilitation and Improvement Project (DRIP); and India-EU Water Partnership (IEWP) NWA has been at the forefront of technical knowledge dissemination and skill enhancement in critical domains.

The Core Area Training Programs aim to : (i) Enhance technical competency in hydrological Modeling, remote sensing, and GIS applications; (ii) Introduce advanced analytical tools for water resources planning and management; (iii) Equip engineers and decision-makers with practical skills in hydraulic Modeling, dam safety, hydrometeorological observations, and water structure design; and (iv) Support data-driven decision-making through global data processing tools and AI/ML-based hydrological applications

During **2023-24**, **ten specialized training programs** were conducted, benefiting **243 officers** from **State and Central Government organizations** across India.

#	Topic	Dates	Number of Participants	Duration in Weeks
i.	Application of Google Earth Engine for WRM under NHP	12-16 Jun 2023	36	1
ii.	Interactive and Hands on training on SWAT Hydrological Modelling IEWP-SWAT	21-25 Augt 2023	24	1
iii.	Hydel Civil Design	09-13 Oct 2023	17	1
iv.	RIBASIM under IEWP	09-19 Oct 2023	13	2
v.	Training Program on 'Global Data Processing using Python and Notebooks in Geospatial Platform' under NHP	25-27 Oct 2023	40	0.6
vi.	Design of Hydromechanical Equipment	30 Oct -01 Nov 23	27	1
vii.	Hydrometeorological Observation (NHP)	19-24 Feb 2024	32	1.2
viii.	Use of Advanced Software in Design of Water Resources Struture	26 Feb - 01 March 24	36	1
ix.	Hydrological Applications of Microwave Remote Sensing (NHP)	18-22 March 2024	18	1
<b>Total</b>			<b>243</b>	

Key Takeaways from the Core Area Training Programs are (i) adoption of cutting-edge technologies such as Google Earth Engine, Python for geospatial analysis, and advanced hydraulic modelling tools; (ii) strengthened technical expertise in hydrological simulation, dam instrumentation, hydromechanical design, and flood forecasting; (iii) Practical, hands-on training tailored to real-world challenges in water resources planning, management, and disaster mitigation; (iv) Multi-disciplinary approach, integrating GIS, remote sensing, climate data analytics, and AI-based tools for decision-making. These programs have meaningfully enhanced technical knowledge and capacity among engineers, scientists, and decision-makers working in water resources management, hydrology, flood control, and dam safety.

### **6.3.15 National Water Academy (NWA) as a Regional Training Centre (RTC) of the World Meteorological Organization (WMO)**

The National Water Academy (NWA), under the Central Water Commission (CWC), has been recognized as a key institution for capacity building in hydrological sciences and water resource

management. In response to a request from the CWC through the Permanent Representative, the WMO Executive Council Panel of Experts on Education and Training visited NWA in March 2012. Subsequently, in June 2012, the WMO Executive Council approved the addition of NWA as a component of the WMO Regional Training Centre (RTC) of India through Resolution 19 (EC-64). This recognition was reaffirmed in 2017 with Decision 56 (EC-69).

As an RTC of WMO, NWA has been actively engaged in conducting specialized distance learning training programs on fundamental and advanced topics in hydrology and hydraulics for both Indian and international participants from WMO Regional Association II (RA-II) countries. These programs align with WMO's Competency Frameworks (WMO-No. 1209), particularly addressing Objective 4.1, which focuses on supporting developing countries in delivering and utilizing essential weather, climate, hydrological, and environmental services.

The following DL programs are being conducted by NWA in association with WMO.

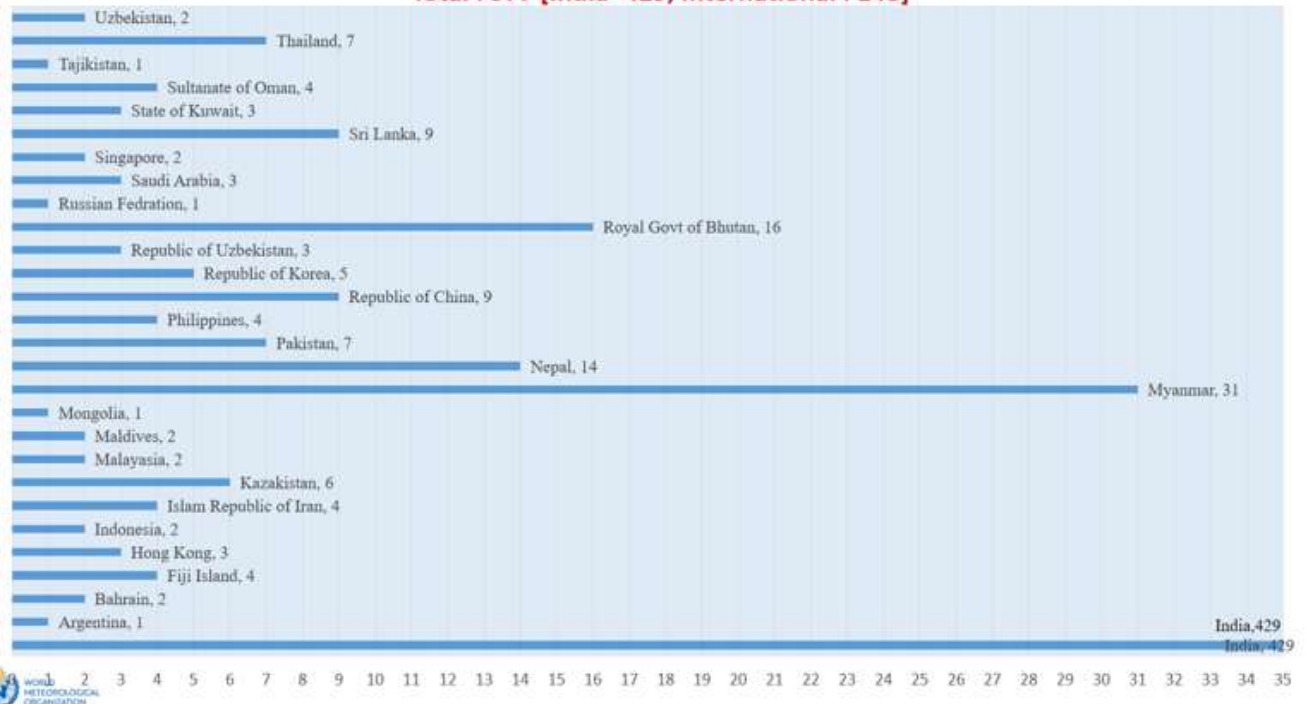
- **Basic Hydrological Sciences** – Conducted in association with WMO, this program aims to enhance the foundational understanding of hydrological sciences for professionals across national and international platforms.
- **Advanced Topics in Hydraulics and Hydrological Sciences** – Conducted in collaboration with WMO and COMET, USA, this program is designed to provide in-depth knowledge on advanced hydrological and hydraulic sciences.

### Training Achievements and Participation

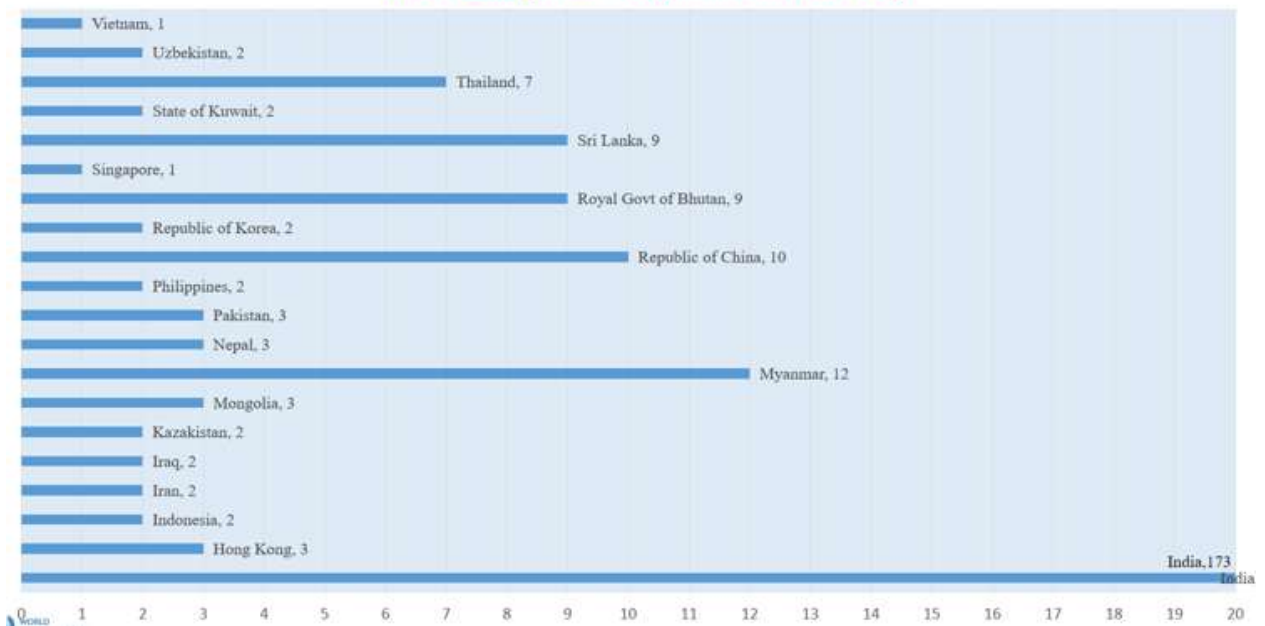
Since its recognition as an RTC, NWA has successfully conducted **15 Distance Learning Programs—11 courses** on Basic Hydrological Sciences and **4 courses** on Advanced Hydraulics and Hydrological Sciences. The total participation across these programs stands at **827 officers** (601 Indian and 226 International participants).

Sr. No.	Name of the Course	Dates	Duration	Indian	International	Total	Indian	International
1	First Course DL - Basic Hydrological Science	12 March 2012 - 04 April 2012	6 Weeks	38		38		
2	Second Course DL - Basic Hydrological Science	26 November 2012 - 14 December 2012	6 Weeks	41		41		
3	Third Course DL (International) - Basic Hydrological Science	08 July 2013 - 26 August 2013	7 Weeks	14	25	39		
4	Fourth Course (International) - Basic Hydrological Science	10 March 2014 - 25 April 2014	7 Weeks	23	21	44		
5	Fifth Course (International) - Basic Hydrological Science	02 November 2015- 18 December 2015	6 Weeks	25	14	39		
6	Sixth Course DL - Basic Hydrological Science	19 December 2016 - 03 February 2017	7 Weeks	38		38		
7	Seventh Course (International) - Basic Hydrological Science	16 October 2017 - 30 November 2017	7 Weeks	46	14	60		
8	Eighth Course - Basic Hydrological Science	25 February 2017 - 15 April 2017	7 Weeks	41		41		
9	Ninth Course DL (International) - Basic Hydrological Science	17 June 2019-13 August 2019	7 Weeks	28	17	45		
10	Tenth Course DL (International) - Basic Hydrological Science	27 July - 11 September 2020	7 Weeks	81	35	116		
11	Eleventh Course DL (International) - Basic Hydrologic Science	03 October - 17 November 2023	7 Weeks	54	22	76	429	148
12	First Course Advanced DL - Hydraulics and Hydrological Sciences	27 January 2015 - 06 March 2015	6 Weeks	25	13	38		
13	Second Course Advanced DL - Hydraulics and Hydrological Sciences	07 March 2016 - 15 April 2016	6 Weeks	22	21	43		
14	Third Course Advanced DL - Hydraulics and Hydrological Sciences	19 March 2018 - 04 May 2018	7 Weeks	54	23	77		
15	Fourth Course Advanced DL - Hydraulics and Hydrological Sciences	31 May 2021 - 16 July 2021	7 Weeks	72	20	92	173	77
			<b>Total</b>	<b>602</b>	<b>225</b>	<b>827</b>	<b>602</b>	<b>225</b>

**Country-wise Participants : 11 DL Basic Hydrologic Science Courses  
Total : 577 [India -429, International : 148]**



**Country-wise Participants : Four Advanced topics in Hydraulics and Hydrological Sciences  
Total : 250 [India -173, International :77]**



The National Water Academy remains committed to strengthening its role as a premier training institution under the WMO framework. Future efforts will focus on:

- Expanding course offerings to address emerging challenges in hydrology and climate resilience.
- Strengthening collaborations with international organizations for knowledge exchange and capacity building.
- Leveraging advanced learning technologies to enhance the reach and effectiveness of training programs.

NWA's continued engagement in international capacity building underscores its pivotal role in advancing global hydrological education and sustainable water resource management.

### 6.3.16 Distance Learning and Webinar-Based Training Initiatives (2023-24)

As part of its commitment to capacity building and knowledge dissemination, NWA conducted a series of distance learning programs (DLPs) and webinars during the year 2023-24. These programs catered to a wide range of stakeholders, including government officials, water sector professionals, academicians, and international participants. The topics covered key aspects of water resources management, dam safety, hydrology, GIS applications, financial management, and international water cooperation.

Through virtual learning platforms, NWA successfully reached thousands of participants across India and beyond, fostering awareness, technical competency, and policy-oriented discussions.

### Key Distance Learning Programs and Webinars Conducted (2023-24)

#	Program Topic	Target Audience	Participants	Dates
1	Webinar on Legal and Institutional Framework of Dam Safety	All Stakeholders	950	25-26 July 2023
2	Webinar Series on Interstate River Disputes in India (16 Webinars)	All Stakeholders	1711	10 Aug – 30 Nov 2023
3	Webinar Series on International Water Cooperation in India (11 Webinars)	All Stakeholders	770	18 Sept – 01 Dec 2023
4	Distance Learning Program on Basic Hydrological Sciences (WMO 2023)	National & International Participants	76	03 Oct – 17 Nov 2023
5	Webinar on Dam Safety Aspects	All Stakeholders	570	12-13 Feb 2024
6	Introduction to RS & GIS using QGIS	All Stakeholders	1,160	19-23 Feb 2024
7	Training on Delegation of Financial Powers, CPWD Manual & Procurement through CPP	Officials of MoJS & Departments	119	14-15 Feb 2024
8	Webinar on PFMS e-Module	Officials of MoJS & Departments	120	20-21 Feb 2024

### Highlights of the Distance Learning Programs and Webinars

- *Extensive Outreach* – Over 5,476 participants from State and Central Government departments, water sector organizations, and international agencies benefited from these programs.
- *Diverse Themes* – Topics covered technical, legal, policy, and financial aspects of water resources management.
- *International Engagement* – Participation from global experts in programs such as the Basic Hydrological Sciences (WMO 2023) initiative.
- *Technical Capacity Building* – Practical training in GIS, QGIS, hydrological sciences, and dam safety regulations.

- *Policy-Oriented Webinars* – Discussions on interstate water disputes, international water cooperation, and legal frameworks enriched stakeholder knowledge.

### 6.3.17 Mass Awareness Initiatives

Water plays a crucial role in the socio-economic development of the nation. With rapid population growth, urbanization, industrial expansion, agricultural demands, tourism, and climate change placing immense pressure on water resources, it is imperative to foster public awareness about water conservation and management. Spreading awareness among the general public, educators, media professionals, and other stakeholders is essential for addressing water scarcity by achieving a balance between water consumption and replenishment.

Recognizing this necessity, NWA, in addition to its core technical programs and cadre training initiatives, has been actively conducting mass awareness programs. These programs are designed to promote water conservation and management among diverse target groups, including school teachers, NGOs, media professionals, NCC cadets, Panchayat Raj functionaries, farmers, and Water User Associations (WUAs). Periodic training for these groups has been a key feature of NWA's training calendar. Below are details of the programs conducted during 2023-24:

#### Overview of Water Resources Sector of India – For School Teachers & DIET Faculty

No.	Target Group	Topic	No of Participants	Dates
1.	Four Awareness program was conducted benefiting participations of School Teacher and DIET Faculty on Pan India <b>(Distance Learning Program)</b>	Overview of Water Resources Sector of India	954	17-18 April 2023 19-20 April 2023 24-25 April 2023 26-27 April 2023
2.	School Teacher and DIET Faculty for Maharashtra at NWA <b>(Residential)</b>	Overview of Water Resources Sector of India	36	22 Sept 2024
3.	One Awareness program was conducted benefiting participations of School Teacher and DIET Faculty on Pan India <b>(Distance Learning)</b>	Overview of Water Resources Sector of India	156	23-24 Jan 2024



*DIET Faculty and School Teachers participating in the one day program on  
“Overview of Water Resources Sector”*

### **Disaster Management Awareness – For NCC Cadets**

The National Cadet Corps (NCC) plays a crucial role in disaster management by contributing to preparedness and response efforts across India. NCC cadets, trained in various emergency response strategies, serve as a vital link between authorities and communities during disasters.

Recognizing the significance of this role, NWA, in collaboration with the Army Institute of Technology, Pune, and the National Disaster Response Force (NDRF), launched a dedicated disaster management awareness program. The first of its kind, this program was successfully conducted in 2023-24, with the participation of 57 NCC cadets on 1st February 2024.





*NCC Cadets participating in the Training-cum-Workshop on “Flood Disaster Management”*

### 6.3.18 Awareness Generation Webinars (2023-24)

As per the directives of the Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR), NWA organized a series of awareness-generation webinars to promote legal literacy, inclusivity, and workplace safety among stakeholders. These sessions aimed to foster awareness, compliance, and a deeper understanding of important legal frameworks and constitutional values. The following Webinars were conducted :

- Webinar on Sexual Harassment of Women in the Workplace – 142 Participants
- Webinar on SC/ST Prevention of Atrocities Act, 1989 – 65 Participants
- Webinar on Constitutional Values & Fundamentals of the Indian Constitution – 107 Participants

#### Objectives & Impact

- Enhanced Awareness – Sensitized participants on workplace rights, legal safeguards, and constitutional responsibilities.
- Legal Compliance – Strengthened understanding of statutory provisions under POSH Act, SC/ST Atrocities Act, and Constitutional Principles.
- Inclusive Work Culture – Promoted discussions on gender equality, social justice, and fundamental rights.

These initiatives reflect NWA’s commitment to fostering an inclusive, legally informed, and equitable work environment.

### 6.3.19 Trainers Development Program/Faculty Development Program

The Faculty Development Program (FDP) / Trainers Development Program (TDP) is a crucial initiative for enhancing the pedagogical and technical expertise of the core faculty at the National Water Academy (NWA). As a premier institution for capacity building in the water resources sector, NWA continuously strives to equip its faculty with advanced instructional methodologies, digital learning tools, and modern training techniques to ensure effective knowledge dissemination.

A structured FDP/TDP enables faculty members to refine their teaching methodologies, integrate technology-driven learning, and adopt innovative engagement strategies for impactful training delivery. It also fosters interdisciplinary learning, enhances communication skills, and strengthens course design to address the diverse needs of engineers, policymakers, and stakeholders in the sector. By investing in continuous faculty development, NWA upholds its commitment to excellence in training and capacity building, ensuring that its programs remain relevant, interactive, and aligned with emerging trends in water management.

As part of this initiative, seven core faculty members participated in various Faculty Development programs during 2023-24, as detailed below:

S. No.	Event	Organized by	Year	Location	Participation of NWA Faculty
1	National Training Conclave 2023	Capacity Building Commission	2023	New Delhi	1. Chief Engineer 2. Director 3. Deputy Director
4	Faculty Development Program	NWA, CWC, Pune	2023	Pune	4. Director 5. Deputy Director 6. Deputy Director 7. Deputy Director

Through active participation in these programs, NWA faculty members have gained valuable insights into best practices in training delivery, learner engagement, and capacity-building strategies. This continuous professional development ensures that NWA remains at the forefront of knowledge dissemination, furthering its mission to build a skilled workforce for sustainable water resources management.

### 6.3.20 Right to Information Act, 2005 and Thirty Party Audit under RTI Act

**Right to Information Act, 2005 :** Like any other Public Authority, NWA also receives RTI applications from the Public. The applications are replied to within the stipulated time. The status of the applications /appeals received in NWA under RTI Act during 2023-24 is given as below “

Nature of RTI Reference	No. Received	No. Disposed of
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<b>Applications</b>	19	19
<b>First Appeals</b>	NIL	NIL

### Third-Party Audit under RTI Act

In accordance with the directives of the Department of Personnel and Training (DoPT), the National Water Academy (NWA) is committed to ensuring transparency and compliance with the Right to Information (RTI) Act, 2005. As per the Office Memorandum dated 20th September 2022, all Ministries, Departments, and Public Authorities are required to conduct Third-Party Audits of their suo motu disclosures under Section 4 of the RTI Act. The audit is to be carried out by Government Training Institutes under the Central or State Governments. In cases where no such institute exists within a department, any other Government Training Institute may be engaged. This initiative is a significant step toward standardizing transparency audits, strengthening public accountability, and improving proactive disclosure mechanisms, thereby fostering greater openness and trust in governance.

DoWR, RD & GR vide letter No.11011/9/2018-Coordination Section dated 08.03.2024 has directed NWA to conduct Transparency Third Party Audit for the Public Authorities under the Department of DoWR, RD & GR. In line with this direction, NWA has conducted a thorough Third Party Audit of the Websites maintained by the following 16 Public Authorities for the year 2023-24 and have submitted the comprehensive Audit Reports to the Central Information Commission (CIC) using the login credentials provided to NWA by CIC.

1. Department of Water Resources, RD & GR	2. Central Water Commission (CWC)
3. Central Ground Water Board (CGWB)	4. Central Water & Power Research Station (CW&PRS)
5. Krishna River Management Board (KRMB)	6. National Water Development Agency (NWDA)
7. Pollavaram Project Authority (PPA)	8. Central Soil and Materials Research Station (CSMRS)

9. Godavari River Management Board (GRMB)	10. National Water Informatics Centre (NWIC)
11. Brahmaputra Board (BB)	12. Bansagar Control Board (BCB)
13. Betwa Board (BB)	14. NERIWALM
15. WAPCOS India Limited	16. Defence Institute of Advanced Technology (DIAT)

### 6.3.21 Synergization of Training Institutes under DoWR, RD & GR

The Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR), Ministry of Jal Shakti (MoJS) has taken significant steps to synergize training institutions under its purview.

An '**Oversight Committee for Training and Capacity Building**' was constituted in August 2021 to oversee and integrate the training programs offered by these institutions. In August 2022, the committee was reconstituted to include the heads of three key training institutions—NWA, RGNGWT&RI, and NERIWALM—who then collaborated on resource sharing, joint training programs, and periodic consultation meetings. Mutual hosting of training modules across institutions was introduced.

A SWOT analysis was conducted to identify strengths and address weaknesses through collaborative efforts. The findings were used to create a synergy matrix, optimizing institutional capabilities. A final synergy report was submitted, and a presentation was made by NWA on behalf of all three institutions.

For the first time in India, NWA conducted a one-day national-level workshop on '**Training Needs Assessment (TNA) for Water Resources Development & Management (WRD&M)**' on 7th July 2023 at the SCOPE Convention Centre, New Delhi, under the aegis of DoWR, RD & GR, Ministry of Jal Shakti.

The workshop aimed to gather inputs on training needs from various government departments, organizations, and stakeholders in the water resources sector. This initiative aligned with the vision of the 'National Programme for Civil Services Capacity Building (NPCSCB) – Mission Karmayogi,' launched by the Hon'ble Prime Minister to bring transformational change in civil services capacity-building and enhance governance in the country.

Also, during the year 2023-24 Induction training programs were conducted for the Newly Recruited Officers of the Central Ground Water Board and NERIWALM at NWA, Pune. The Probationary Officers of Central Water Engineering Services Group A Officers, as a part of

the Induction Training Program attended a customized module at Rajiv Gandhi National Ground Water Training Institute, Raipur on the topic of “Ground Water Management” and at NERIWALM, Tezpur on the topics of “Soil-Crop-Water Management & Agricultural ” respectively. Officers of NWA represented these both institutes in the various Committees as and when requested by them and thus contributed towards the efforts of synergization three training institute under DoWR,RD&GR.

**Report on the WALMI MEET 2022-23** was prepared including the recommendations from WALMI Meet 2023 The final report covering brief background; initiatives at the National and International Level for rejuvenation of WALMIs; status of WALMIs; synergization of Water Education; brief details of each of WALMIs such as organisation structure; mandate & role; infrastructure available etc. were also included in the said report.

### 6.3.22 Support to other Organizations

Being the premier Institute for training and capacity building in the gamut of Water Resources Development and Management and having emerged as “Center of Excellence” in many other specialized areas, a number of organizations approach NWA for providing them support in terms of organizing cadre specific programs, customized modules at NWA and Client Location; Conceptualization of Content and also request for the faculty assistance. The details of the specific training programs conducted by NWA during the year 2023-24 has already been elaborated at Para 6.3.5, 6.3.7 and 6.3.8

Further, NWA has extended its assistance in developing the Contents of a specific programs to the following institute

- ✓ Maharashtra National Law University, Aurangabad
- ✓ Inputs were given to Consultant NIDM, for the proposed themes for Workshops on Flood Risk Reduction and Resilience, by suggesting the topics, regrouping the themes, suggesting the agency which can collaborate with NIDM, shared potential resource person topic wise.
- ✓ Rwanda and WAPCOS Officials on Training Programmes regarding “Export Targeting Modern Irrigated Agriculture Projects in ETI-Rwanda

Further, during the year 2023-24, despite very tight schedule and in house commitments, faculty assistance were also provided to the following organizations in their training courses:

Sl.No.	Name of Faculty	Organisation	Topic	Dates
1	Shri Chaitanya K S, Deputy Director, NWA	CWPRS, Pune	Reservoir Sedimentation Assessment Techniques, its	22.08.2023

			Estimation and Management	
2	Shri Chaitanya K S, Deputy Director, NWA	NRSC, Hyderabad	Irrigation Water Management - New Tools and Technologies	07.09.2023
3	Shri D S Chaskar, Chief Engineer & Head, NWA	Maharashtra National Law University, Aurangabad	River Water Sharing Disputes in India	16.2.2024

### 6.3.23 Contribution in National/International Events

- i. NWA officers coordinated a session of 1.5 day duration on the Congress Question 64 “What alternative water resources could be tapped for irrigated agriculture?” and also made presentation on in Training and Capacity building during the special event by CWC in the 25<sup>th</sup> Congress of the International Commission on Irrigation & Drainage (ICID) conducted during 01-08 November 2023 at Vizag.
- ii. NWA officers coordinated Thematic Session on “Water Governance” during the All India Secretaries’ Conference on Water Vision @ 2047- Way Ahead’ held at Mahabalipuram on 23rd-24th January 2024 also delivered the opening presentation.

### 6.3.24 Visit of dignitaries

On May 22, 2023, Ms. Debashree Mukherjee, Special Secretary (WR), DoWR, RD & GR, MoJS, visited the National Water Academy (NWA), Pune, to review its activities. She commended the Academy’s training initiatives and infrastructure. Key directives from the visit included strengthening collaboration with State Agricultural Universities to enhance water use efficiency and expanding capacity-building initiatives in dam safety. She emphasized adopting a **Blended Learning Approach**, continuing online awareness programs while prioritizing face-to-face training for skill development. To address manpower shortages and enhance program development, she advised engaging consultants and scaling training efforts.



She also underscored the need for a **Hub and Spoke Model**, positioning NWA as a central training hub to build the capacity of state training institutes through **Training of Trainers** programs. Additionally, she recommended developing case studies and sharing them with institutions like IIM to enrich training materials.

To foster **training synergy**, she highlighted collaboration with LBSNAA and NIRD, strengthening WALMIs/IMTIs to upscale training outreach, and enhancing competency development in water use standards under BWUE. She also directed the engagement of agencies for digital learning content development and encouraged exploring MoUs with global water institutions to foster international collaborations.

The visit was followed by Interaction with ITP CWES Group A officers and with batch of Govt of Gujarat officers who were undergoing customized training on Dam Safety Aspects – an overview.



*Secretary, DoWR, RD & GR, MoJS addressing the batch of 33 ITP CWES Group A Probationary Officers*



*Officers of the Govt. of Gujarat who are currently attending a training program on "Dam Safety Aspects- an Overview" being conducted by NWA*

Dr Ranbir Singh, IAS(R) , Chairman, Brahmaputra Board made a visit to National Water Academy , Central Water Commission, Pune on 15th March 2024, and interacted with faculty of NWA. A detailed presentation on various activities of NWA was made to brief him. He expressed great appreciation about works being done by NWA. He also showed

keen interest about MOODLE platform being used by NWA for it's various trainings, and gave his views about how it should be made more accessible for water sector professionals to get even more benefits from various trainings being conducted by NWA. He also engaged in very enri ching deliberations on how can NWA and Brahmaputra Board collaborate further for the capacity development of it's officials. He also gave his views on various aspects of water resources that can be taken up for training and capacity building of Brahmaputra Board officials.



*Dr Ranbir Singh, IAS(R), Chairman, Brahmaputra Board interacting with NWA faculty & officials*

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## Chapter 7: Training Feedback Process, Benchmark & Analysis of Feedback for 2023-24

### Feedback Process

NWA has established a structured and comprehensive feedback mechanism to assess training needs, enhance the effectiveness of training programs, and improve associated services. The feedback system is designed to evaluate multiple aspects, including course content, teaching methodologies, faculty effectiveness, learning aids, logistical support, and infrastructure. To ensure a holistic approach, participant feedback is collected at multiple levels:

1. Training Program Feedback – Covers course coverage, faculty effectiveness, learning materials, and new training areas.
2. Logistics and Infrastructure Feedback – Addresses accommodation, housekeeping, and catering services to enhance participant experience.
3. Interactive Feedback Sessions – Conducted with faculty, guest faculty, and senior leadership to gain qualitative insights into program effectiveness.

At the conclusion of each training program, participants are required to provide structured feedback using a standardized format. Additionally, select participants are invited to share their key takeaways and suggestions in open discussions, facilitating a deeper understanding of the program's impact. For long-term training programs, a concurrent evaluation system is in place, enabling real-time monitoring and progressive refinements throughout the course duration.

### Feedback Analysis and Implementation

- Structured Evaluation: Feedback is categorized into training effectiveness, logistics, and service quality for systematic analysis.
- Data-Driven Decision-Making:
  - Training-related feedback is reviewed by core faculty, ensuring that relevant improvements are incorporated into future sessions.
  - Feedback on logistics, housekeeping, and catering is analyzed and shared with the Administration & Coordination (A&C) unit for necessary improvements.
- Archival and Reference: All original feedback reports, along with corresponding analyses, are maintained in the NWA library for record-keeping and strategic planning.

## Benchmarking Framework

To measure and maintain high training and service standards, NWA has established benchmark scores for various components of training programs and associated services.

### A. Benchmarks for Short-Term Training Programs (Up to 2 Weeks)

Criteria	Benchmark Score (Out of 10)
Training Effectiveness	7.5
Housekeeping Services	7.5
Catering Services	7.5

### B. Benchmarks for Long-Term Training Programs (2 Weeks or More)

Criteria	Benchmark Score (Out of 10)
Training Effectiveness	7.0
Housekeeping Services	7.0
Catering Services	7.0

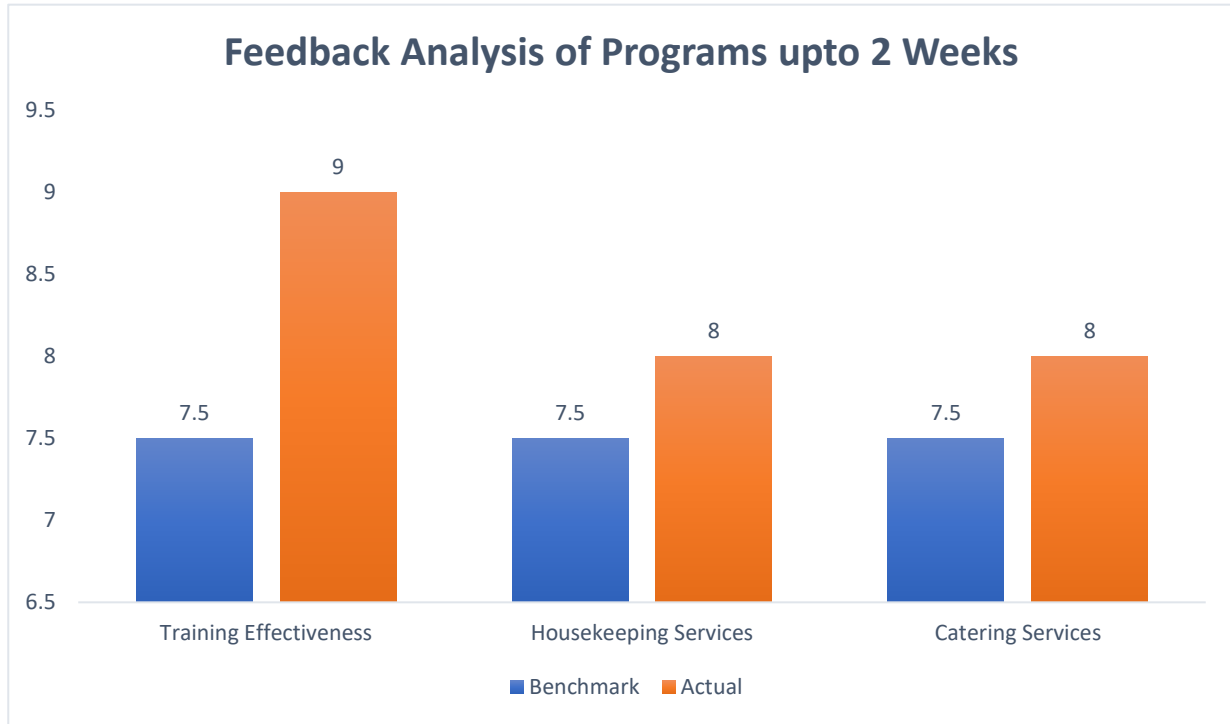
These benchmarks serve as performance standards to assess training efficiency and participant satisfaction across programs.

### Feedback Analysis of Short Term Programs Conducted Upto 2 weeks

#	Name of Training Programme	No of Trainee/ Course	Duration (WKS)	Overall Grading out of 10		
				Course	Catering	Housekeeping
1	Overview of Water Resources Sector of India for School Teachers	36	0.2	10	0	0
2	Training -cum-Workshop on Disaster Management	57	0.2	9	0	0
3	Flood Disaster Management	21	0.4	8	10	9
4	Dharma application related to Dam Safety Aspects	39	0.4	9	9	9
5	Dharma application related to Dam Safety Aspects	57	0.4	9	9	9
6	Training Program on 'Global Data Processing using Python and Notebooks in	40	1	9	9	9

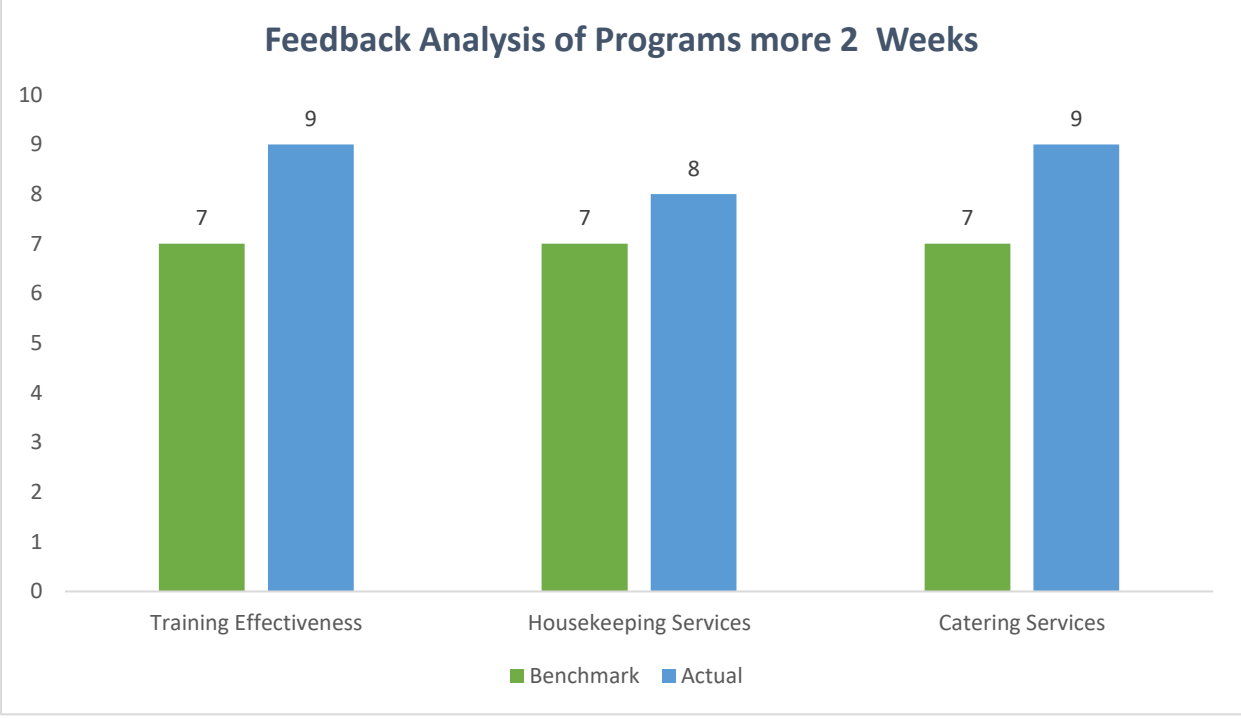
	Geospatial Platform' under NHP					
7	Numerical Modelling using DELFT 3D Software under CMIS	21	1	8	8	9
8	Moderization of Irrigation System using RAP-MASSCOTE Approach	18	1	9	8	8
9	Google Earth Engine	36	1	8	8	8
10	Overview of Surface Water Resources for Newly Recruited Officers of NERIWALM at NWA, Pune	11	1	9	10	10
11	Interactive and Hands on training on SWAT Hydrological Modelling IEWP-SWAT	24	1	9	9	9
12	Overview of Water Resources Sector of India for Non-Technical Officers	29	1	9	10	9
13	Management Development Program for Non-Technical Officers	37	1	8	9	10
14	Hydel Civil Design	17	1	8..9	8	8
15	Design of Hydromechanical Equipment Dates	27	1	8	9	9
16	Dam Safety and Instrumentation	20	1	8	9	9
17	Induction Training Program	39	1	8	10	9
18	Pumped Storage Hydroelectric Project	49	1	9	8	9
19	Water Law & Water Governance	25	1	9	9	9
20	Use of Advanced Software in Design of Water Resources Struture	36	1	8	9	9

21	Hydrological application of MW remote sensing	18	1	9	9	9
22	Faculty Development Program	33	1	9	9	9
23	Training Program on Dam Safety Aspects - An Overview	55	1	9	9	9
24	Hydrometeorological Observation (NHP)	32	1	9	9	9
25	RI-Level1 for SA-HM	11	1	9	9	9
26	RI-Level1 for SA-HM	15	1	9	9	9
27	Training Program on Dam Safety Aspects - An Overview	25	2	9	8	8
28	Induction Training Program for Assistant Engineers / Junior Engineers of NWDA	22	2	8	8	8
29	Induction Training Program Newly appointed MTS of CWC	59	2	10	9	10
30	MCTP Level 2 for JAG CWES Group A Officers	23	2	9	8	9
31	RIBASIM under IEWP	13	2	9	9	8
32	MCTP Level 2 for JAG CWES Group A Officers	26	2	9	9	9
				9	8	8



#### Feedback Analysis of Programs > 3 weeks

#	Name of Training Programme	No of Trainee/Course	Duratio (Weeks)	Overall Grading out of 10		
				Course	Catering	Housekeeping
1	MCTP for STS	24	3	9	9	9
2	Mandatory Cadre Taining for Junior Engineers of Central Water Commission	39	4	9	8	9
3	Mandatory Cadre Taining for Junior Engineers of Central Water Commission	50	4	8	8	9
4	MCTP for AD-II/SDE	63	4	9	7	8
5	MCTP for JTS	24	4	8	7	9
6	Mandatory Cadre Taining for Junior Engineers of Central Water Commission (Batch IV)	48	4	9	8	9
7	Induction Training Program (ITP) for the officers of Central Water Engineering (Group A) Services *	9	34	8	7	9
				9	8	9



**Summary of the Criteria, benchmark, average rating and Performance Assessment**

Category	Benchmark	Average Rating	Performance Assessment
Training	7.5 / 7.0	8.7	Exceeded the Benchmark
Housekeeping	7.5 / 7.0	8.7	Exceeded the Benchmark
Catering	7.5 / 7.0	8.1	Exceeded the Benchmark

## अध्याय 8 - आधिकारिक कार्यों में हिंदी का प्रगतिशील प्रयोग/ Progressive Use of Hindi in Official Work

### हिन्दी के प्रगामी प्रयोग संबंधी वार्षिक प्रतिवेदन (वर्ष 2023-24)

राष्ट्रीय जल अकादमी, केंद्रीय जल आयोग, पुणे में वर्ष 2023-24 के दौरान राजभाषा हिंदी के प्रगामी प्रयोग में उल्लेखनीय वृद्धि हुई। गृह मंत्रालय के राजभाषा विभाग द्वारा जारी निर्देशों के अनुरूप, अकादमी में हिंदी के प्रयोग को प्रोत्साहित करने हेतु विभिन्न गतिविधियों का आयोजन किया गया।

### हिन्दी कार्यशालाएँ

अकादमी में राजभाषा हिंदी के प्रचार-प्रसार हेतु वर्ष 2023-24 में निम्नलिखित हिंदी कार्यशालाओं का आयोजन किया गया:

- 15 जून 2023 – "जीवन शैली तथा तनाव प्रबंधन" विषय पर हिंदी कार्यशाला एवं चर्चा।
- 20 सितंबर 2023 – "आत्मविकास के लिए मनोवैज्ञानिक मूल्यांकन" विषय पर हिंदी कार्यशाला एवं चर्चा।
- 21 दिसंबर 2023 – हिंदी कार्यशाला एवं संवाद सत्र।
- 1 मार्च 2024 – "प्रसन्न दृष्टिकोण, जीवन का उद्देश्य और जीवन की समग्र गुणवत्ता" (Happy Attitude, Purpose of Life and Total Quality of Life) विषय पर हिंदी में व्याख्यान एवं परिचर्चा।

### राजभाषा कार्यान्वयन समिति की तिमाही बैठकें

राष्ट्रीय जल अकादमी में हिंदी के प्रगामी प्रयोग की समीक्षा एवं इसकी प्रभावी क्रियान्वयन सुनिश्चित करने हेतु वर्ष भर में राजभाषा कार्यान्वयन समिति की तिमाही बैठकें आयोजित की गईं। इन बैठकों में केंद्रीय जल आयोग (मुख्यालय) द्वारा की गई राजभाषा समीक्षा पर विचार-विमर्श किया गया एवं हिंदी में कार्य करने की प्रगति की समीक्षा की गई।

## हिंदी पखवाड़ा



राष्ट्रीय जल अकादमी, पुणे द्वारा 14 सितंबर 2023 से 28 सितंबर 2023 तक हिंदी पखवाड़े का आयोजन किया गया, जिसमें अकादमी परिसर स्थित सभी कार्यालयों के अधिकारियों एवं कर्मचारियों ने सक्रिय भाग लिया। इस अवसर पर विभिन्न प्रतियोगिताओं एवं

जागरूकता कार्यक्रमों का आयोजन किया गया।

राष्ट्रीय जल अकादमी हिंदी के प्रगामी प्रयोग को बढ़ावा देने हेतु निरंतर प्रयासरत है एवं भविष्य में भी राजभाषा हिंदी के संवर्धन एवं विकास हेतु प्रतिबद्ध रहेगी।

### हिन्दी में कार्य निष्पादन की उपलब्धियाँ

अकादमी में हिंदी में कार्य करने की प्रतिशतता 90% से अधिक रही, जबकि हिंदी में टिप्पणियाँ लिखने की प्रतिशतता 75% से अधिक दर्ज की गई। यह दर्शाता है कि राजभाषा हिंदी के प्रयोग को निरंतर बढ़ावा दिया जा रहा है।

## पुरस्कार एवं मान्यता

हिंदी के प्रगामी प्रयोग में निरंतर वृद्धि एवं उत्कृष्ट कार्यनिष्पादन के फलस्वरूप, राष्ट्रीय जल अकादमी को केंद्रीय जल आयोग (मुख्यालय) द्वारा वर्ष 2023-24 हेतु "ख" क्षेत्र की प्रतिष्ठित राजभाषा शील्ड से सम्मानित किया गया। यह सम्मान केंद्रीय जल आयोग के अध्यक्ष श्री कुशविंदर वोहरा एवं भारत सरकार के पदेन सचिव द्वारा 11 जुलाई 2023 को मुख्यालय में आयोजित एक समारोह में प्रदान किया गया। राष्ट्रीय जल अकादमी की ओर से श्री दत्ताकुमार चासकर, मुख्य अभियंता एवं प्रमुख ने इस प्रतिष्ठित शील्ड को स्वीकार किया।



Chief Engineer, NWA, CWC, Pune receiving "हिंदी शील्ड"

## Chapter 9 : Celebrations and Observance of Important Days

The National Water Academy (NWA), Pune, actively engages in celebrating significant national and international days, fostering awareness, wellness, and social responsibility among its staff, trainees, and stakeholders. The year 2023-24 witnessed vibrant celebrations of various important events.

### World Environment Day 2023 – 05 June 2023





NWA celebrated as a week-long event from May 27 to June 5, 2023, with the theme '**Solutions to Plastic Pollution.**' The week included daily activities such as cleaning of water bodies and surrounding areas, cleaning of Khadakwasla dam, collection of old clothes and giving them away to NGOs for drives, and a campus-wide plastic cleanup drive.



The celebrations culminated in a formal event on June 5 with a pledge to reduce plastic use, an talk on plastic pollution's impact on water resources, and discussions on sustainable practices.

## International Yoga Day 2023



On June 21, 2023, NWA observed International Yoga Day under the theme 'Yoga for Vasudhaiva Kutumbakam.' Observed with a series of activities throughout the day on June 21, 2023. The event featured multiple yoga sessions led by certified instructors, workshops on mindfulness and stress management, and interactive talks on the importance of yoga for physical and mental well-being.



Participants also engaged in group meditation and discussions on integrating yoga into daily life for enhanced productivity and wellness. Certified instructors led yoga sessions, emphasizing physical and mental well-being through asanas and breathing exercises.



**Vigilance Awareness Week 2023 : 30 October - 05 November 2023**



Observed from October 30 to November 5, 2023, by National Water Academy, Pune, with the theme 'Say No to Corruption; Commit to the Nation.' The week featured a series of activities including integrity pledge ceremonies, poster-making competitions on anti-corruption themes,

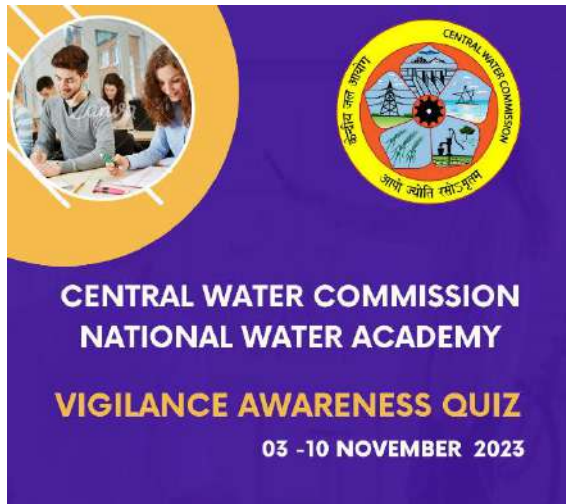
workshops on transparency and good governance, and interactive sessions on ethical practices in governance. Special lectures by experts in public administration highlighted the importance of vigilance in institutional functioning. Staff and trainees actively participated in these activities, reinforcing NWA's commitment to integrity and accountability. NWA conducted integrity pledge ceremonies, workshops on transparency, and interactive sessions on ethical practices in governance.

As part of a comprehensive series of activities organized by National Water Academy , Central



Water Commission in observance of Vigilance Awareness Week 2023, NWA had hosted a Vigilance Awareness 'Gram Sabha' yesterday for the functionaries of Donje Gram Panchayat. Notably, the Sarpanch, along with other members of the Panchayat and villagers, actively participated in this occasion.

The gathering served as a platform to disseminate vital information on Vigilance Awareness among the villagers. Furthermore, to engage and inspire the younger generation, a Drawing Competition centered around the theme of "Preventing Corruption" was conducted for the students of Noble Blooming Buds School, Donje, Pune. Prizes were awarded to the accomplished winners, recognizing their artistic prowess and emphasizing the importance of combating corruption. This comprehensive initiative represents a proactive step towards nurturing integrity and promoting transparency within our community.



During the Vigilance Awareness Week 2023, NWA took a proactive approach to foster awareness by hosting on-line Vigilance Awareness Quiz on Website. Noteworthy was the inclusive design of the quiz allowing anyone to attempt without needing prior registration. This accessibility encouraged widespread participation, with approximately 600 individuals engaging in the quiz.

NWA took all efforts in organizing the Vigilance Awareness week and contributed to the cause of creating awareness about vigilance and ethical practices.

## Swachata Diwas 2023

Swachata Diwas was observed on October 2, 2023, by National Water Academy, Pune, to commemorate Gandhi Jayanti. The day featured extensive cleanliness drives within and around the campus, awareness campaigns on the importance of hygiene and sanitation, and interactive sessions highlighting Mahatma Gandhi's vision of a clean and self-reliant India. Staff and trainees participated enthusiastically in these activities, promoting the message of cleanliness and hygiene. On October 2, 2023, NWA commemorated Gandhi Jayanti with Swachata Diwas, organizing cleanliness drives across the campus and promoting the message of cleanliness and hygiene.



The Swachhata Hi Seva (SHS) campaign was being observed this year from September 15 to October 2 under the joint aegis of DDWS and MoHUA, Govt. of India, in order to conduct shramdaan activities as a prelude for the Swachh Bharat Diwas (2nd October). The theme of SHS-2023 is "Garbage Free India," and the event at Khadakwasla Chowpatty reinforced the idea that tourist destinations, riverbanks, and



water bodies should be free of garbage including plastic waste. NWA, Pune undertook numerous activities during this fortnight starting from 15th Sept 2023.

As part of the #SwachhBharat #SwachhataHiseva campaign, 1-hour 'Ek Tareekh – Ek Ghanta' cleanliness drive was organised today at Khadakwasla Dam Chowpatty from 10-11. The event was organised in collaboration with Pune Municipal Corporation, and SWaCH NGO, Green Thumb NGO, NCC cadets from Army Institute of Technology, local ward/panchayat functionaries,



Anganwadi workers and Khadakwasla Chowpatty Haathgaadi Sangathan workers. The NGOs and local community leaders actively were involved with the objective of ensuring people's participation in the drive. More than 350 people participated in the event.





## International Women's Day 2024



INTERNATIONAL  
WOMEN'S DAY

International Women's Day 2024 was celebrated on March 8, 2024, by National Water Academy, Pune, under the theme 'Invest in Women: Accelerate Progress.' The celebration featured panel discussions on gender equality, workshops on women's empowerment, cultural performances by women officers. A keynote address highlighted the importance of women's participation in water resource management and sustainable development

International Women's Day 2024 was celebrated on March 8, 2024, by National Water Academy, Pune, under the theme 'Invest in Women: Accelerate Progress.' The celebration featured panel discussions on gender equality, workshops on women's empowerment, cultural performances by women officers. A keynote address highlighted the importance of women's participation in water resource management and sustainable development









**Swachata Pakhwada 2024 (16-23 March 2024)**



Swachata Pakhwada Week was celebrated by National Water Academy, Pune, from January 16-23 March 2024, with extensive participation from staff and trainees.

The fortnight-long event featured daily cleanliness drives across the campus, awareness campaigns on hygiene and waste management, seminars on water sanitation, and hands-on training sessions on sustainable practices.





Competitions like poster-making and slogan-writing on cleanliness themes were also organized to engage participants and spread the message of Swachh Bharat. Held from 16-23 March 2024, NWA undertook various cleanliness initiatives, including awareness campaigns, waste segregation drives, and interactive sessions on maintaining hygiene standards.





### Other Notable Celebrations

- **Independence Day 2023** (August 15): Included flag hoisting, cultural performances, and speeches on water sector achievements.
- **Republic Day 2024** (January 26): Celebrated with a flag hoisting ceremony





These celebrations promoted community spirit, environmental consciousness, ethical governance, gender equality, and hygiene awareness, reinforcing NWA's commitment to holistic development and social responsibility.

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## Chapter 10 : Collaboration and Linkages

The National Water Academy (NWA), Pune, is committed to develop strong linkages with premier institutions at national and international levels to enhance training programs and capacity-building initiatives in the water resources sector. These collaborations enable NWA to integrate global best practices, emerging technologies, and advanced methodologies into its training framework, ensuring relevance and excellence.

### National Collaborations and Linkages

NWA has established strong linkages with several premier national institutions, enabling knowledge-sharing and expertise exchange. Notable collaborations include:

**Academic and Research Institutions:** Indian Institutes of Technology (IITs), Indian Space Research Organisation (ISRO), India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), National Institute of Rural Development (NIRD), National Disaster Management Authority (NDMA), Central Ground Water Board (CGWB), Central Public Works Department (CPWD), National Remote Sensing Centre (NRSC), Centre for Development of Advanced Computing (CDAC), Maharashtra Remote Sensing Applications Centre (MRSAC), National Commission on Agriculture (NCA), State and Central Water Commissions, and others.

**Training and Capacity-Building Institutes:** National Institute of Hydrology (NIH), Yashwantrao Chavan Academy of Development Administration (YASHADA), Central Water and Power Research Station (CWPRS), Central Soil and Materials Research Station (CSMRS), Indian Institute of Remote Sensing (IIRS), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Maharashtra Engineering Research Institute (MERI), Gujarat Engineering Research Institute (GERI), Karnataka Engineering Research Institute (KERI), IIT-Roorkee, Water and Land Management Institutes (WALMIs), National Environmental Engineering Research Institute (NEERI), Central Pollution Control Board (CPCB), Bhabha Atomic Research Centre (BARC) Mumbai, Indian Council of Agricultural Research (ICAR), Central Inland Fisheries Research Institute (CIFRI), National Institute of Construction Management and Research (NICMAR), National Insurance Academy (NIA), Ministry of Rural Development (MoRD), North Eastern Regional Institute of Water and Land Management (NERIWALM), Nehru Yuva Kendra, Institute of Secretariat Training and Management (ISTM), Comptroller and Auditor General (CAG), State Water Resources Departments, Universities, Agricultural Universities, Private Consultants, and NGOs.

Faculty members from these institutions actively contribute to NWA training programs, and NWA faculty are regularly invited to deliver lectures and contribute to the curriculum development of partner institutions.

### Engagement with Leading Institutions

NWA has established partnerships with premier academic institutions, state water resources departments, research organizations, private consultants, and NGOs to facilitate knowledge exchange and leverage domain expertise. These collaborations significantly enhance the scope, quality, and effectiveness of training programs.

### Memoranda of Understanding (MoUs)

- A new MoU was signed with the Indian Institute of Management (IIM), Ahmedabad, for conducting the Mid-Career Training Programme (MCTP) Level 4 for SAG CWES Group A officers.
- Another MoU was signed between NWA and Maharashtra Environmental Training Academy (META), Government of Maharashtra (GoM), to foster collaborative training and capacity-building activities.



## Participation in Governing Councils

Faculty members from NWA actively contribute to key decision-making bodies by serving on the Governing Councils of:

- Haryana Irrigation Research and Management Institute (HIRMI), Kurukshetra
- Water and Land Management Institute (WALMI), Aurangabad
- Irrigation Management Training Institute (IMTI), Trichy
- North Eastern Regional Institute of Water and Land Management (NERIWALM), Tezpur
- North Eastern Hydraulic & Allied Research Institute (NEHARI), Guwahati

## Institutional Linkages through MoUs:

NWA has signed formal MoUs with leading institutions to facilitate structured collaborations for specialized training programs. These include:

- Indian Institute of Management (IIM), Ahmedabad
- Indian Institute of Technology (IIT), Roorkee
- Indian Institute of Management (IIM), Bengaluru
- Indian Institute of Science (IISc), Bengaluru
- Indian Institute of Management (IIM), Kolkata
- Various ISRO units, including NRSC and IIRS
- Asian Institute of Technology (AIT), Bangkok
- IHE-Delft, The Netherlands

## International Collaborations and Linkages

### Engagement with Global Organizations

NWA actively collaborates with international organizations to strengthen global capacity-building efforts in the water sector.

### World Meteorological Organization (WMO)

- NWA serves as a component of the Regional Training Centre (RTC) of India, contributing to international capacity-building initiatives under WMO.

### India-EU Water Partnership (IEWP)

- NWA has been identified as one of the Training Institute Partners within the PR7 Group, supporting the implementation of the Results-Based Management (RBM) Cycle as a practical tool in water management.

### **International Commission on Irrigation and Drainage (ICID)**

- In collaboration with ICID, NWA has conducted online training programs focusing on irrigation management and related themes.

### **Asian Development Bank (ADB) Collaboration**

- NWA is associated with the ADB-supported "Support for Irrigation Modernization Program (SIMP)", facilitating specialized training programs under this initiative.

Through these national and international collaborations, NWA continues to play a pivotal role in advancing knowledge, building institutional capacities, and fostering innovation in the water resources sector. These partnerships ensure that NWA remains a leader in training and capacity-building, aligned with global and national water management priorities.

Through these national and international collaborations, **NWA continues to play a pivotal role in advancing knowledge, building institutional capacities, and fostering innovation in the water resources sector.**

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## Chapter 11 : NWA Campus : Infrastructure , Facilities & Utilities

NWA campus is located in serene, green and clean environs with river Mutha (Krishna River Basin)



and NDA on tiny hills on one side and CWPRS colony on the other. It is about 10 Km from the main Pune city. This location of NWA keeps it away from the hectic and crowded life of the city yet provides all the

benefits available in a large city. The Wi-Fi enabled NWA complex has office buildings on one side of the Sinhgad Road and the residential accommodation on the other side. The residential campus includes Ganga, Krishna & Godavari guest houses for the participants and the visiting faculty, and also residential quarters for NWA faculty/officials. The lush green campus with well-maintained and landscaped gardens, lawns, bountiful trees provides a perfect ambience for learning and academic excellence.

Since 2020, NWA in addition to Residential Training started conducting trainings in Distance Learning Mode. For residential training, NWA has a hostel capacity of 55 double bedded rooms. The residential facilities comprise Hostel for participating officers (Godavari, Krishna and New Krishna). For guest faculty and VVIPs there is Ganga Guest House

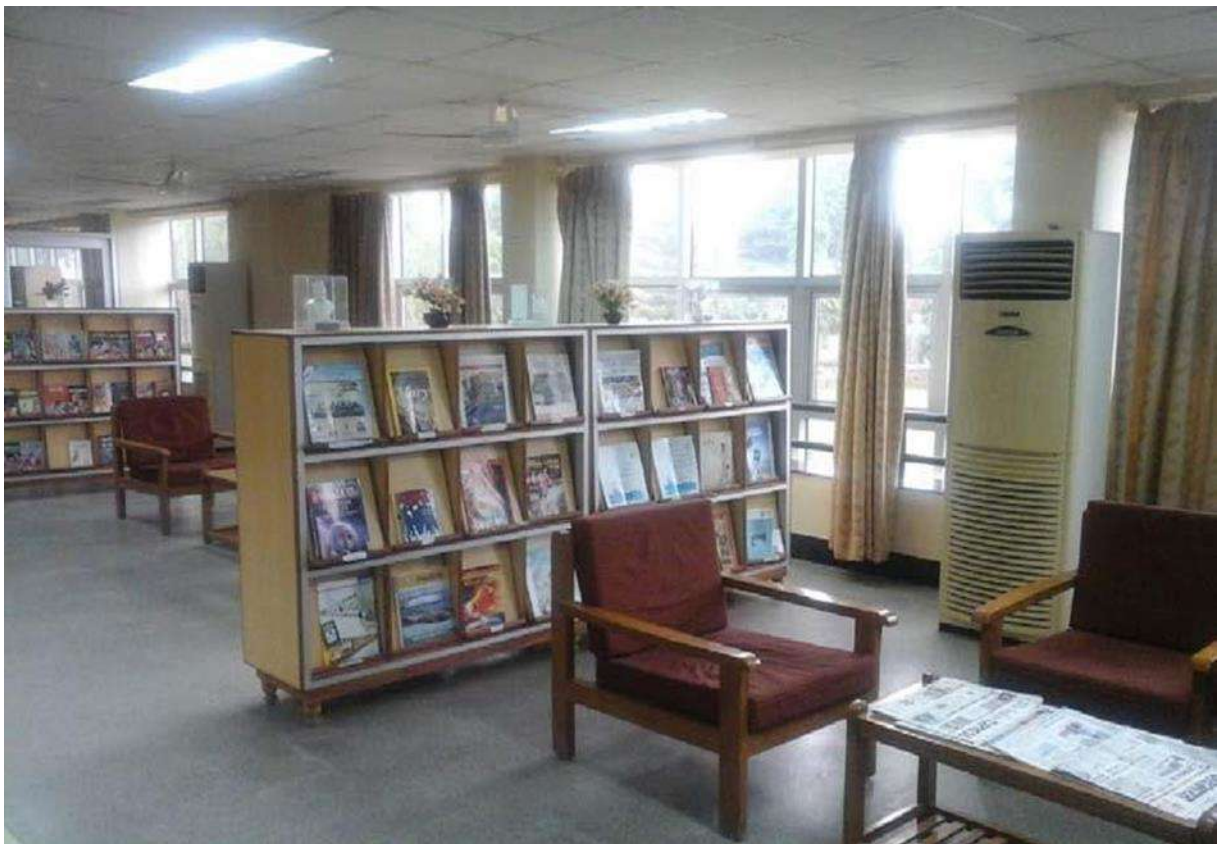


The rooms of the guest house are furnished with modern amenities like Air Conditioner, LCD TV, Refrigerator, Microwave Oven, etc. The campus has ample facilities for recreation, rejuvenation and physical fitness like swimming pool, gymnasium, billiards, jogging track etc.





The academic area has 3 state-of-the-art lecture halls/rooms, a seminar hall, one committee room, one conference room and office cabins for faculty, administration etc. All lecture halls and the



seminar hall are air-conditioned and are provided with advance audio-visual aids like LCD Overhead Projector with PC and Remote Control for displaying presentations, PA System, Video Conferencing etc. Centre of Geo- informatics equipped with 25 PCs for software-based training programs.

The computer center is equipped with local area networking, scanners, printers, CD/DVD writers, etc. and high-speed internet with Wi-Fi facilities. All the computers and peripherals are on centralized UPS to ensure uninterrupted working.

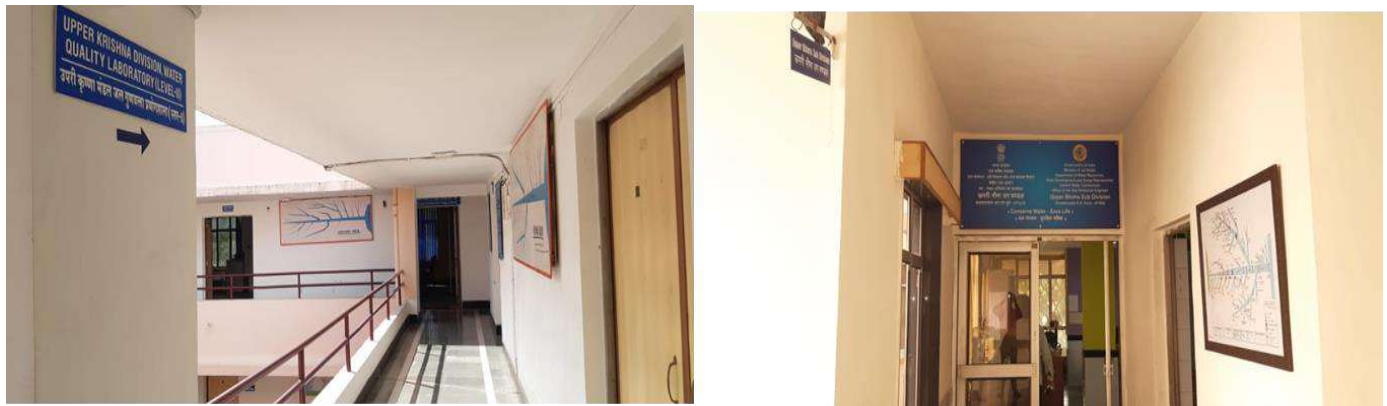
The NWA has its own library with a good collection of books and journals on all aspects of Water Resources Planning and Development, River Basin Planning and related topics. The Library also has subscription for many magazines and newspapers. If necessary, participants can also have access to the CW&PRS Library which has an even larger collection. The NWA provides adequate facilities to the participants of the training programmes. These include training kits, course material and facilities like computers, internet, accommodation, mess facility, sports activities etc.

A Full Climatic Station is also established within the campus of NWA.



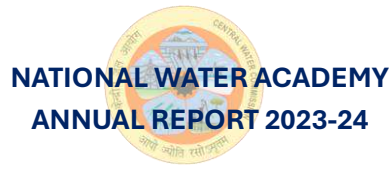
Office complex also houses; Monitoring & Appraisal Directorate, under Monitoring Central Organisation, CWC, Nagpur; Upper Krishna Division and Upper Bhima Sub-Division under Krishna

Godavari Basin Organisation, CWC, Hyderabad; National Dam Safety Authority, Western, Central Public Works Department Maintenance Sub-Division.



**Continued Infrastructure Development activities of NWA:** Existing infrastructure on NWA was developed further with New EPABX System; Upgradation gym and Mess; Upgradation of Swimming Pool; Upgradation of all Computers, etc. The rooms of guest houses were made 100 % operational enabling to accommodate more number of participants.

**Construction of Underpass :** The long-awaited construction of the underpass across Sinhgad Road, connecting the office complex and residential complex of the NWA has finally started. Given the increasing number of training programs and associated footfall at NWA, the absence of a dedicated crossing had become a significant concern. With frequent movement of staff, trainees, and visitors between the two complexes, crossing the busy Sinhgad Road posed significant safety risks and operational challenges. The need for an underpass across Sinhgad Road, connecting the office complex and residential complex of the NWA has been a longstanding requirement to enhance safety, accessibility, and operational efficiency within the campus. The underpass serves as a vital infrastructure solution, providing a secure and seamless passage, minimizing the risk of accidents, and ensuring uninterrupted connectivity.



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Proposal for Underpass was prepared in consultation with PWD. It is now approved by the Ministry and the tender is under process.

**Further expansion and Infrastructure Development of NWA** – for establishment of New International level campus - Proposal for acquiring Land was prepared and as per the direction of DoWR, RD&GR meetings were convened with CWPRS. A detailed proposal was prepared and submitted.

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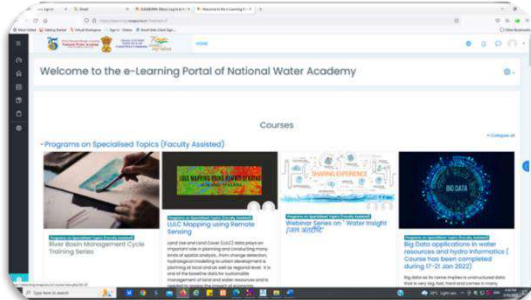
## Chapter 12 : E-Learning Initiatives

The National Water Academy (NWA), Pune, has been at the forefront of leveraging e-learning platforms to enhance capacity building in the water resources sector. Recognizing the growing need for flexible and accessible learning solutions, NWA has developed a Learning Management System (LMS) based on Moodle, facilitating the delivery of a wide range of online training programs, webinars, and self-paced courses. These initiatives cater to government officials, engineers, researchers, academicians, and other stakeholders across India and beyond, significantly expanding the Academy's outreach. NWA's e-learning programs cover diverse and contemporary topics, including water conservation and management, dam safety, river basin planning, hydrological modelling, micro-irrigation, and climate change adaptation in water resources. The LMS enables seamless access to structured learning modules, interactive assessments, discussion forums, and certification, fostering a dynamic learning environment. The Academy has also integrated customized survey forms using scaling methods to assess training effectiveness and participant feedback for continuous improvement.

In addition to structured courses, NWA regularly conducts webinars and virtual workshops in collaboration with national and international organizations, ensuring knowledge exchange on emerging technologies, best practices, and policy frameworks in the sector. The blended learning approach, combining online modules with hands-on practical sessions, has been widely appreciated by participants.

The adoption of e-learning has not only ensured greater inclusivity and cost-effectiveness but has also played a crucial role in maintaining uninterrupted training activities during pandemic-induced disruptions. Going forward, NWA aims to further enhance its digital learning ecosystem by incorporating advanced tools such as AI-driven learning analytics, interactive simulations, and GIS-

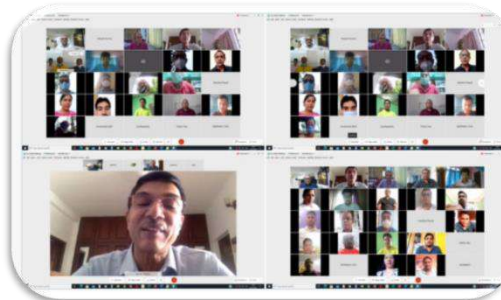
based water resource training modules, reinforcing its commitment to continuous professional development and capacity building in the water sector.




Development of fully paperless and on-line process from registration to certificate

Use of common tools - Google Classroom, YouTube, WhatsApp & Cisco Webex platform

Development of MOODLE Learning Management System(LMS) - e-Learning portal of NWA  
<https://www.nwapune.gov.in>



## Chapter 13 : Training Information Management System (TIMS)



The screenshot shows the homepage of the National Water Academy's Online Training Activities Database. The header includes the NWA logo and the text "NATIONAL WATER ACADEMY Online Training Activities Database". The main content area is titled "Welcome To NWA Training Activities Database" and lists various tasks to perform, such as "Data Availability", "Search", "For a program", "Estimate", "Schedule", "List of Trainee Officers", "List of Trainee Officers with Addresses", "Information Card and Group Photograph", "List of Training Programs", "State/Org. wise Distribution of Trainee Officers", "For a Guest faculty", "Visiting Card", "List of Sessions Taken During Given Period", "For a Trainee Officer", and "Visiting Card". A login link is provided at the bottom left, and the footer credits the database creator, Shri. D. S. Chaskar, Director, NWA.

The National Water Academy (NWA), Pune, has developed an in-house Training Information Management System (TIMS) to streamline and enhance the management of training-related data. This web-enabled, real-time relational database is hosted on a dedicated server and is administered through secure login credentials. The system enables efficient data compilation, monitoring, and reporting, ensuring seamless training administration.

NWA maintains a comprehensive digital database of all training programs, workshops, and seminars. For each event, key details are systematically recorded, including:

- Program Details: Final schedule, location, mode of delivery.
- Faculty Information: Details of speakers and resource persons.
- Participant Data: Name, designation, date of birth, organization, category, and contact details, Gender details to analyze gender-based participation trends across different programs & monitoring gender representation in capacity building efforts.

- Training Analytics: Competencies addressed, funding agencies, and feedback grading.

Home Page | Data Availability Chart | Programme Info | Trainee Officer Info | Faculty Info | Search

Add Data Home Page | Select a Training Program | Add faculty | Add Trainee Officer | Add category | Logout

### Add a training Programme

Course ID	1074		
Course Name Full			
Course Name Short			
Funding Agency / Sponsors:	Select an Agency		
Start Date	27	Feb	2025
End Date	27	Feb	2025
Weeks			
Total No Of Trainees Attended			Manweeks
Course Fee			Cal
Estimated Cost in Rs:			Actual Expr in Rs:
Estimate Approval By	CE NWA		
Type Of Program	Select a Program Type		Deposit Work <input type="radio"/> Yes <input checked="" type="radio"/> No
Course Coordinator1	Select a Faculty		
Course Coordinator2	Select a Faculty		
Estimate Prepared For	Trainees Officers		
MajorHead	Select a major head		
MinorHead	Select a minor head		
SubMinorHead	Select a subminor head		
DetailHead	Select a detail head		
Any other Information			
<input type="button" value="Submit"/> <input type="button" value="Reset"/>			

Home Page | Data Availability Chart | Programme Info | Trainee Officer Info | Faculty Info | Search

Add Data Home Page | Select a Training Program | Add faculty | Add Trainee Officer | Add category | Logout

### Add/Modify competency/feedback details of a training Programme

Course ID	1072		
Course Name Full	Project Management Project Supervision and Quality Control		
Course Name Short	PMPSQC		
Start Date	From 18 / 2 / 2023 To 22 / 2 / 2025		
Competencies addressed by the Program ( select at least one or more)			
<input checked="" type="checkbox"/> Domain			
<input type="checkbox"/> Functional			
<input type="checkbox"/> Behavioural			
Program <input type="radio"/> In Campus <input checked="" type="radio"/> Off Campus <input type="radio"/> Both Location <input type="text" value=""/> (max-255 characters)			
Number of Female Participants <input type="text" value=""/>			
Overall Feedback Grading ( Only Numerical value on the scale of 0-10) (Give value 0 if not applicable or not available)			
Program Feedback: <input type="text" value=""/>			
Guest House Feedback: <input type="text" value=""/>			
Catering Feedback: <input type="text" value=""/>			
Mode of the program : <input checked="" type="radio"/> Physical Mode <input type="radio"/> Distance Learning <input type="radio"/> Blended <input type="radio"/> Webinar			
<input type="button" value="Submit"/> <input type="button" value="Reset"/>			

**Quickly Add a Faculty**

Title	Mister (Mr )	
Name Full		
Male/Female	<input checked="" type="radio"/> Male <input type="radio"/> female	
Parent ORG	<input type="radio"/> Select a Org <input type="button" value="else add"/>	
Expert Area		
Designation	Select a designation	Suffix
Dept/Dte/Div		
Core/Guest	<input type="radio"/> Core <input checked="" type="radio"/> Guest	
Category	Select a category	
Sub_Category	select	
Address		
city	<input checked="" type="radio"/> Select a city <input type="radio"/> else add	
Tel:		Fax:
mobile:		
email:		
Retired	<input type="checkbox"/> at the time of delivering lecture	
	<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

To enhance training documentation, courseware and presentations are compiled digitally. All training-related information, except feedback reports, is shared with participants in soft format and archived in the NWA library using DVDs/Pen Drives for future reference. Additionally, TMIS enables data analytics to generate insights for presentations in various forums. Some of the Key Features of (TIMS) are

#### 1. Training Program Management

- Creation, scheduling, and monitoring of training programs.
- Thematic categorization (e.g., water resources, disaster management, irrigation).

#### 2. Faculty & Resource Management

- Repository of expert speakers and subject matter specialists.

#### 3. Reports & Data Analytics

- Generation of reports on training outcomes, participant demographics, and feedback trends.
- Data-driven insights for future program enhancements.

#### 4. Administration & User Management

- Role-based access for administrators, trainers, and participants.
- Secure login and data management controls.

(TIMS) serves as a digital backbone for training administration at NWA, ensuring efficient documentation, enhanced accessibility, and data-driven decision-making for continuous improvement in training programs.

National Water Academy Online Training Activities Database												
<a href="#">Home Page</a>   <a href="#">Data Availability Chart</a>   <a href="#">Programme Info</a>   <a href="#">Trainee Officer Info</a>   <a href="#">Faculty Info</a>   <a href="#">Search</a>												
<a href="#">Add Data</a>   <a href="#">Home Page</a>   <a href="#">Select a Training Program</a>   <a href="#">Add Faculty</a>   <a href="#">Add Trainee Officer</a>   <a href="#">Add category</a>   <a href="#">Logout</a>												
List of Training Programmes												
<b>Programmes : ALL</b> <b>Funding Agency : ALL</b> <b>During the Period : 1/4/2023 to 31/2/2024</b> <b>Coordinated By : ALL</b>												
93 Records found.												
SrNo	CourseID	Name of the Programme	Funding Agency	Start Date	End Date	Weeks	No Of Trainees	Manweeks	Program Type	Delivery Mode	Program Feedback	Competency
1.	884	* Conventional Flood Forecasting Method	GOI	3/4/2023	17/4/2023	1.8	214	385.2	Training program			..
2.	885	* Mandatory Cadre Training Program for JEs of CWC	GOI	10/4/2023	4/5/2023	4	39	156	Mandatory Cadre Training Pr			..
3.	886	* Induction Training Program for Assistant Engineers / Junior Engineers of NWDA	GOI	17/4/2023	28/4/2023	2	22	44	Other Cadre			..
4.	888	* Overview of Water Resources Sector of India	GOI	17/4/2023	18/4/2023	0.4	221	88.4	Mass Awareness			..
5.	889	* Overview of Water Resources Sector of India	GOI	19/4/2023	20/4/2023	0.4	219	87.6	Mass Awareness			..
6.	887	* Induction Training Program (ITP) for the officers of Central Water Engineering (Group A) Services	GOI	24/4/2023	8/12/2023	34	9	306	Induction Training program			..
7.	890	* Overview of Water Resources Sector of India	GOI	24/4/2023	25/4/2023	0.4	184	73.6	Mass Awareness			..

## Chapter 14 :Conclusion

During 2023-24, the National Water Academy (NWA), Pune, achieved a significant expansion in its training programs and outreach. Despite constraints in human resources, the Academy successfully implemented an increased number of activities, demonstrating its commitment to capacity building, knowledge dissemination, and stakeholder engagement in the water resources sector.

Through high-quality training programs, strategic collaborations, and the integration of advanced technologies, NWA has further strengthened its position as a center of excellence in professional development. Its proactive engagement with national and international institutions has enriched learning experiences, ensuring that participants are equipped with global best practices and innovative solutions. These initiatives have been instrumental in building technical expertise, fostering policy-oriented discussions, and promoting sustainable water management practices.

Looking ahead, NWA remains committed to advancing skill development, embracing emerging trends, and expanding its outreach to address the evolving challenges in water resources management. With a strong focus on sustainability, resilience, and technological innovation, NWA will continue to play a pivotal role in shaping a water-secure future for the nation.

***"Learning gives creativity, creativity leads to thinking, thinking provides knowledge, and knowledge makes you great." Dr. A.P.J. Abdul Kalam (Former President of India & Scientist)***

***"The goal of mankind is knowledge. That is the one ideal placed before us by Eastern philosophy. Pleasure is not the goal of man, but knowledge." - Swami Vivekananda***

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**Annex - I**

**Incumbency Position of NWA, CWC, Pune as on 31 March 2024**

**Sanctioned /Working (in position) Staff Strength including NPS as on 31.03.2024 in respect of NWC, CWC, Pune are as under:**

#	Name of the Post	Sanctioned	Filled (in Position)	Vacant
1	Chief Engineer	01	01	0
2	Director	05	03	02
3	Deputy Director	03	03	0
4	Assistant Director -II	03	03	0
5	Junior Engineer	02	01	01
6	Stenographer	05	02	03
7	Assistant	02	00	02
8	Upper Division Clerk/SSA	01	02	(-) 1*
9	Lower Division Clerk / JSA	02	01	01
10	Driver	03	01	02
11	Multi-Tasking Staff	07	06	01
<b>Total</b>		<b>34</b>	<b>23</b>	<b>11</b>

**\*One post of UDC is adjusted against the vacant post of Assistant/ASO**

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Annex - II

Training Programs conducted during 2023-24									
Sl. No.	Name of Training Programme	Dates	Competency skills as per CBC	No of Trainee per course	Duration of Program (Weeks / Months)	Man weeks	Training Days	Mandays	Mode of Delivery
1	Conventional Flood Forecasting Method	03-17 April 2023	Domain	214	1.8	385.2	9	1926	DL
2	Mandatory Cadre Training for Junior Engineers of Central Water Commission	10 April -04 May 2023	Domain, Functional, Behavioural	39	4	156	20	780	Residential
3	Induction Training Program for Assistant Engineers / Junior Engineers of NWDA	17-28 April 2023	Domain, Functional, Behavioural	22	2	44	10	220	Residential
4	Induction Training Program (ITP) for the officers of Central Water Engineering (Group A) Services	24 April -08 December 2023	Domain, Functional, Behavioural	9	34	306	170	1530	Residential
5	Distance Learning Program on Water Resources Sector of India	17-18 April 2023	Domain	221	0.4	88.4	2	442	DL
6	Distance Learning Program on Water Resources Sector of India	19-20 April 2023	Domain	219	0.4	87.6	2	438	DL

7	Distance Learning Program on Water Resources Sector of India	24-25 April 2023	Domain	184	0.4	73.6	2	368	DL
8	Distance Learning Program on Water Resources Sector of India	26-27 April 2023	Domain	330	0.4	132	2	660	DL
9	Training Program on Dam Safety Aspects - An Overview	17 -26 May 2023	Domain	25	1.8	45	9	225	Residential
10	Training Workshop on "Introduction to Google Earth Engine" or APSW at Vijayawada	24-26 May 2023	Domain	40	0.6	24	3	120	Residential
11	Familiarization with DPR Preparation of SMI, FMP, AIBP, RRR Projects for officers from Administration of Union Territory of Ladakh at Leh	05-09 June 2023	Domian	55	1	55	5	275	Residential
12	Application of Google Earth Engine for WRM under NHP	12-16 June 2023	Domain	36	1	36	5	180	Residential
13	Overview of Surface Water Resources for Newly Recruited Officers of NERIWALM at NWA, Pune	26.June.23 to 30.June.23	Domain	11	1	11	5	55	Residential
14	Survey, Investigation and Preparation of Detailed Project Report for River Valley Projects - Only for North Eastern Region at	26.June.23 to 30.June.23	Domain	20	1	20	5	100	Residential

	CWC Campus, Adabari, Guwahati								
15	TNA workshop for assessment of training needs in water resources sector under the aegis of DoWR, RD & GR	07-Jul-23	Domain	176	0.2	35.2	1	176	Residential
16	Workshop on Pension Related Matters	20 July 2023	Functional	14	0.2	2.8	1	14	Residential
17	Workshop on Pension Related Matters	21 July 2023	Functional	15	0.2	3	1	15	Residential
18	Webinar on legal and institutional Framework of Dam Safety in India	25-26 July 2023	Domain, Functional	950	0.4	380	2	1900	DL
19	Induction Training Program Newly appointed MTS of CWC	31 July - 11 Aug 2023	Domain, Functional, Behavioural	59	2	118	10	590	Residential
20	Constitutional Provisions pertaining to Water Resources in India	10 August 2023	Domain	269	0.1	26.9	0.5	134.5	DL
21	Existing Central Laws & Enactment relating to Interstate River Water Disputes in India and Role of Central Water Commission (CWC)	17 August 2023	Domain	173	0.1	17.3	0.5	86.5	DL
22	Overview of Existing and Proposed Water Legislation in India	24 August 2023	Domain	146	0.1	14.6	0.5	73	DL
23	National Water Policy	31 August 2023	Domain	131	0.1	13.1	0.5	65.5	DL

24	Interstate River Water Dispute Tribunals	07 Sept 2023	Domain	102	0.1	10.2	0.5	51	DL
25	Interstate Water Dispute Act	14 Sept 2023	Domain	123	0.1	12.3	0.5	61.5	DL
26	Interstate River Water Disputes in India – Challenges Vamsadhara Water Dispute – a case study	21 Sept 2023	Domain	89	0.1	8.9	0.5	44.5	DL
27	Inter State Water Disputes Tribunal – KWT Case Study	29 Sept 2023	Domain	79	0.1	7.9	0.5	39.5	DL
28	Interstate River Water Disputes in India – Challenges Krishna Water Dispute -I- a case study	05 October 2023	Domain	94	0.1	9.4	0.5	47	DL
29	Interstate River Water Disputes in India – Challenges Krishna Water Dispute - II – a case study	12 October 2023	Domain	52	0.1	5.2	0.5	26	DL
30	Interstate River Water Disputes in India – Challenges Narmada Water Dispute – a case study	19 October 2023	Domain	69	0.1	6.9	0.5	34.5	DL
31	Interstate River Water Disputes in India – Challenges Ravi & Beas Water Dispute – a case study	26 October 2023	Domain	43	0.1	4.3	0.5	21.5	DL
32	Agreements for Sharing for Waters	02 November 2023	Domain	59	0.1	5.9	0.5	29.5	DL

33	Interstate River Water Disputes in India – Challenges Mahadayi Water Dispute – a case study	16 November2023	Domain	75	0.1	7.5	0.5	37.5	DL
34	Recourse to Stakeholders Framework for Understanding and Resolution of Interstate River Water Disputes	23 November2023	Domain	104	0.1	10.4	0.5	52	DL
35	Interstate River Water Disputes in India – Challenges Cauvery Water Dispute – a case study	30 November2023	Domain	103	0.1	10.3	0.5	51.5	DL
36	Interactive and Hands on training on SWAT Hydrological Modelling under IEWP	21-25 August 2023	Domain	24	1	24	5	120	Residential
37	Survey , Investigation and Preparation of Detailed Project Report for River Valley Projects (for NE Region)	21-25 August 2023	Domain	46	1	46	5	230	Residential
38	Overview of Water Resources Sector of India for Non-Technical Officers	28 August - 1 Sept 2023	Domain	29	1	29	5	145	Residential
39	MCTP Level 3 for CWES Group A, JAG level Officers	04-15 September 2023	Domain, Functional, Behavioural	23	2	46	10	230	Residential
40	Faculty Development Program	04-09 September 2023	Functional, Behavioural	33	1.2	39.6	6	198	Residential

41	Training on Coastal Management information system(CMIS)	04-08 September 2023	Domain	25	1	25	5	125	Residential
42	Training Program on Dam Safety Aspects - An Overview	18-23 September 2023	Domain	55	1.2	66	6	330	Residential
43	International Cooperation in Water Sector of India : Role of DoWR, RD & GR, MoJS, GOI	18 Sept 2023	Domain	73	0.1	7.3	0.5	36.5	DL
44	History of Development of International Water Law; Water Allocation in Transboundary basins; Helsinki Rules (1966), Berlin Rules(2004)	26 Sept 2023	Domain	72	0.1	7.2	0.5	36	DL
45	International Water Law: The UN Watercourses Convention 1997 and other instruments	03 Oct 2023	Domain	70	0.1	7	0.5	35	DL
46	Indus Water Treaty : Surviving the odds	09 Oct 2023	Domain	64	0.1	6.4	0.5	32	DL
47	Working of Indus Water Treaty between India and Pakistan: Case Studies of Baglihar & Kishanganga	16 October 2023	Domain	59	0.1	5.9	0.5	29.5	DL
48	Ganga Water Treaty (1996) and existing institutional mechanisms for transboundary water cooperation between India and Bangladesh	23October 2023	Domain	61	0.1	6.1	0.5	30.5	DL

49	Kosi (1954,1966) and Gandak(1959) Agreements, Treaty(1996) and existing institutional mechanisms Mahakali for transboundary water cooperation between India and Nepal	30 October 2023	Domain	73	0.1	7.3	0.5	36.5	DL
50	Transboundary Cooperation on Water Resources between India and Bhutan	06 November 2023	Domain	75	0.1	7.5	0.5	37.5	DL
51	Transboundary Cooperation on Water Resources between India and China	13 November 2023	Domain	69	0.1	6.9	0.5	34.5	DL
52	Challenges of International issues in Interlinking of River Projects	20 November 2023	Domain	60	0.1	6	0.5	30	DL
53	India's cooperation in water sector with other countries (not in neighbourhood)	28 November 2023	Domain	94	0.1	9.4	0.5	47	DL
54	Overview of Water Resources Sector of India for School Teachers	22 September 2023	Domain	36	0.2	7.2	1	36	Residential
55	Management Development Program for Non-Technical Officers	25-29 September 2023	Functional, Behavioural	37	1	37	5	185	Residential
56	Distance Learning Program on Basic	03 Oct -17 November 2023	Domain	76	7	532	35	2660	DL

	Hydrological Sciences - 2023 (In association with WMO)								
57	Sensitization program on Flood Disaster Management for senior officers of NDMA & Disaster management authorities	05-06 October 2023	Domain	21	0.4	8.4	2	42	Residential
58	Hydel Civil Design	09-13 October 2023	Domain	17	1	17	5	85	Residential
59	RIBASIM under IEWP	09-19 October 2023	Domain	13	2	26	10	130	Residential
60	Application of Remote Sensing and GIS	16-20 October 2023	Domain	99	1	99	5	495	Residential
61	Mandatory Cadre Training for Junior Engineers of Central Water Commission (Batch V)	16 October-10 Nov 2023	Domain, Functional, Behavioural	50	4	200	20	1000	Hybrid (DL/Residential)
62	Training Program on 'Global Data Processing using Python and Notebooks in Geospatial Platform' under NHP	25-27 October 2023	Domain	40	0.6	24	3	120	Hybrid (DL/Residential)
63	Design of Hydromechanical Equipment	30 October -01 Nov 23	Domian	27	1	27	5	135	Residential
64	Interactive sessions with Group A officers of Government of Maharashtra	02 November 2023	Domain	25	0.2	5	1	25	Residential
65	Dam Safety and Instrumentation	06-10 Nov 2023	Domain	20	1	20	5	100	Residential

66	MCTP Level 3 : for CWES Group A, JAG level Officers	22 Nov - 02 Dec 2023	Domain, Functional, Behavioural	26	2	52	10	260	Residential
67	Numerical Modelling using DELFT 3D Software under CMIS	22-24 Nov 23	Domain	21	0.6	12.6	3	63	Residential
68	MCTP for AD-II/SDE's of CWC	28 Nov-22 Dec 2023	Domain, Functional, Behavioural	63	4	252	20	1260	Hybrid (DL/Residential)
69	MCTP Level 1 for JTS Grade Officers of CWES Group A	28 Nov-22 Dec 2023	Domain, Functional, Behavioural	24	4	96	20	480	Residential
70	Flood Protection, Anti-Erosion and River Training Works at NEHARI	04-08 December 2023	Domain	23	1	23	5	115	Residential
71	Modernization of Irrigation System using RAP-MASSCOTE Approach	06-08 December 2023	Domain	18	0.6	10.8	3	54	Hybrid (DL/Residential)
72	MCTP Level 2 for STS level Officers of CWES Group A	04-22 December	Domain, Functional, Behavioural	24	3	72	15	360	Residential
73	Induction Training Program for CGWB Officers	01 -05 January 2024	Domain	39	1	39	5	195	Residential
74	Pumped Storage Hydroelectric Project	08-12 January 2024	Domian	49	1	49	5	245	Residential
75	Mandatory Cadre Training Program: Level 4 (SAG)	08-12 January 2024	Functional, Behavioural	10	1	10	5	50	Residential

76	Mandatory Cadre Training for Junior Engineers of Central Water Commission (Batch VI)	09 January -02 February 2024	Domain, Functional, Behavioural	48	4	192	20	960	Hybrid (DL/Residential)
77	Webinar on Sexual Harassment of Women in Workplace	12 January 2024	Domain	142	0.1	14.2	0.5	71	DL
78	Webinar on SC/ST Prevention of Atrocities Act 1989	15-Jan-24	Domain	65	0.1	6.5	0.5	32.5	DL
79	Water Resources Sector of India for school Teachers	23-24 January 2024	Domain	156	0.4	62.4	2	312	DL
80	Webinar on Constitutional values of fundamentals of Indian Constitution	25 January 2024	Domain	107	0.1	10.7	0.5	53.5	DL
81	Customized Training on Remote Sensing & GIS Applications in WRM for officials of WMIFMP & Irrigation & Water Ways Department, Government of West Bengal at Kolkata	29 January - 02 February 2024	Domain	15	1	15	5	75	Residential
82	Training -cum-Workshop on Disaster Management for NCC cadets	01 February 2023	Domain	57	0.2	11.4	1	57	Residential
83	Training Program on Preparation of DPR for Flood Management, River Training Works, Anti-erosion etc	29 January - 02 February 2024	Domain	26	1	26	5	130	Residential
84	Water Law & Water Governance	05-09 Feb 2024	Domain	25	1	25	5	125	Residential

85	Webinar on Dam Safety Aspects	12-13 Feb2024`	Domain	570	0.4	228	2	1140	DL
86	Dharma application related to Dam Safety Aspects	13-14 Feb 2024	Domain	39	0.4	15.6	2	78	Residential
87	Delegation of Financial Powers, CPWD Manual & Procurement through CPP	14-15 Feb 2024	Functional	119	0.4	47.6	2	238	DL
88	Dharma application related to Dam Safety Aspects	15-16 Feb 2024	Domain	57	0.4	22.8	2	114	Residential
89	Hydrometeorological Observation (NHP)	19-24 Feb 2024	Domain	32	1.2	38.4	6	192	Residential
90	Introduction to RS & GIS using QGIS	19-23 Feb 2024	Domain	1160	1	1160	5	5800	DL
91	Webinar on PFMS on e-module	20-21 Feb 2024	Functional	120	0.4	48	2	240	DL
92	Post Retirement Prospects and Avenues for CWES Officers"	23-24 Feb 2024	Functional	14	0.4	5.6	2	28	Residential
93	Use of Advanced Software in Design of Water Resources Structure	26 Feb - 01 March 24	Domain	36	1	36	5	180	Residential
94	MCTP Level 1 for Junior/Senior computers of HM cadre of CWC	11-18 March 24	Domain	11	1.4	15.4	7	77	Residential
95	MCTP Level 2 for Scientific Assistants of HM cadre of CWC	12-19 March 24	Domain	15	1.4	21	7	105	Residential
96	Customized program on Increasing Water Use	11-15 March 2024	Domain	26	1	26	5	130	Residential

	Efficiency (WUE) in Irrigation Sector								
97	Webinar on Procurement Challenges and their Resolution	12-13 March 24	Functional	30	0.4	12	2	60	DL
98	Hydrological Applications of MW remote sensing	18-22 March 2024	Domain	18	1	18	5	90	Residential
99	Webinar on Procurement through e-Gem	19-20 March 2024	Functional	105	0.4	42	2	210	DL
100	Workshop on "Dr B R Ambedkar and his life's contribution in Water, Power Policy and WRD in India"	22 March 2024	Domain	105	0.1	10.5	0.5	52.5	DL
101	RTI & Transparency	21-22 March 2024	Functional	102	0.4	40.8	2	204	DL
<b>Till Date</b>				<b>9313</b>	<b>121.1</b>	<b>6296.4</b>	<b>605.5</b>	<b>31482</b>	

**Annex - III**

**33<sup>rd</sup> ITP Induction Training Program (ITP)  
for Central Water Engineering Group 'A' Probationary Officers**

**(24 April 2023 - 08 December 2023)**

**MODULE DETAILS AND DURATION**

# & Modules		Sub Modules	No. of days	Dates
<b>A</b>	<b>ORI</b>	• <b>Orientation to perspectives in Water Resources Sector</b>	<b>5 days</b>	24-28 April 23
<b>B1</b>	<b>HRM</b>	• <b>Office Administration and Procedures</b>	<b>5 days</b>	01 -05 May 23
<b>B2</b>	<b>HRM</b>	• <b>Works Management</b>	<b>5 days</b>	08-12 May 23
<b>B3</b>	<b>HRM</b>	• <b>Financial Administration including Procurement</b>	<b>3 days</b>	15-17 May 23
<b>B4</b>	<b>HRM</b>	• <b>Workshop on Communication Skills</b>	<b>2 days</b>	18-19 May 23
<b>B5</b>	<b>HRM</b>	• <b>Building Competencies in Personnel Excellence (AoL)</b>	<b>3 days</b>	22-24 May 23
<b>B6</b>	<b>HRM</b>	• <b>Team Bonding through Outbound Training at M/s High Places Management, Garudmacchi</b>	<b>3 days</b>	25-27 May 23
<b>C1</b>	<b>RM</b>	• <b>Introduction to Hydrology</b>	<b>2 days</b>	29-30 May 23
<b>C2</b>	<b>RM</b>	• <b>Hydrometry, Techniques of Hydrological Data Processing and its Validation, Water Quality Monitoring</b>	<b>5 days</b>	1-3 & 5-6 June 23
<b>B7</b>	<b>HRM</b>	• <b>Ethics in Public Governance (at IOC, Panchagani)</b>	<b>4 days</b>	08-11 June 23
<b>C3</b>	<b>RM</b>	• <b>Flood Forecasting &amp; Flood Management</b>	<b>5 days</b>	7 & 12-15 June 23
<b>C4</b>	<b>RM</b>	• <b>River Morphology and Coastal Management</b>	<b>3 days</b>	16,19, & 20 June 23
<b>C5</b>	<b>RM</b>	• <b>Visit to Dapoli and nearby Coastal Management works</b>	<b>3 days</b>	21-23 June 23
<b>D1</b>	<b>Custom</b>	• <b>Ground Water Management at RGNGWTRI, Raipur</b>	<b>7 days</b>	<b>26 Jun-02 July 23</b>
<b>H1</b>	<b>Project Apprcn</b>	• <b>Visit to Farraka Barrage</b>	<b>7 days</b>	<b>03-09 July 23</b>

C6	RM	• Introduction to Modelling Tools	5 days	10-14 July 23
G1	Project Work	• Workshop on Introduction to Project Work	1 day	15 July 23
C7	RM	• Preparation of Detailed Project Report, Survey & Investigation and Planning for Water Resources Projects	5 days	17-21 July 23
C8	RM	• Field Attachment with CWC Division	7 days	24-30 July 23
E1	WP&P	• Basin Planning and Management; Reservoir Operation	5 days	31 July-04 Aug 23
E2	WP&P	• Water Governance	2 days	07-08 Aug 23
E3	WP&P	• Irrigation Planning & Water Management	3 days	09-11 Aug 23
E4	WP&P	• Environmental, Economic and Social Aspects of Water Resources Projects & Construction and Contract Management	2 days	14 & 16 Aug 23
E5	WP&P	• Advanced Irrigation Methods for Efficient Water Management at Jain HiTech Agriculture Institute, Jain Hills Jalgaon via WALMI, Aurangabad	4 days	16-19 Aug 2023
E6	WP&P	• Project Appraisal and Monitoring	5 days	21-25 Aug 23
D2	Custom	• Application of RS-GS (at IIRS, Dehradun)	5 days	28 Aug – 01 Sept 23
H2	Project Apprcn	• Visit to Tehri Dam project	3 days	02-04 Sept 23
F1	D&R	• Hydrology and related software application	4 days	05-08 Sept 23
F2	D&R	• Analysis and Design of Gravity Dams	5 days	11-15 Sept 23
F3	D&R	• Analysis and Design of Embankment Dams	5 days	18-22 Sept 23
D2	Custom	• Soil-Crop-Water Management & Agricultural Engineering at NERIWAL, Tezpur	7 days	25 Sept - 01 Oct 23
H3	Project Apprcn	• Survey & Investigation Project Sites at NE Region	7 days	02-08 Oct 23
F4	D&R	• Hydrel Civil Design	5 days	09-13 Oct 23
H4	Project Apprcn	• Visit Polavaram Project	7 days	16-22 Oct 23
F5	D&R	Design of Weirs, Barrages and Canals	5 days	23-27 Oct 23

<b>F6</b>	<b>D&amp;R</b>	<b>Design of Hydro-mechanical Equipment Gates</b>	<b>5 days</b>	<b>30 Oct – 3 Nov 23</b>
<b>F7</b>	D&R	Dam Safety and Instrumentation	5 days	<b>06-10 Nov 2023</b>
<b>G2</b>	<b>Project Work</b>	• <b>Review of Project Work</b>	<b>2 days</b>	<b>13-14 Nov 2023</b>
<b>H4</b>	<b>Project Apprcn</b>	• <b>Visit to Koyna Hydroelectric Project</b>	<b>3 days</b>	<b>15-17 Nov 2023</b>
<b>H5</b>	<b>Project Apprcn</b>	• <b>Visit to Sardar Sarovar Project &amp; other components</b>	<b>5 days</b>	<b>20-24 Nov 23</b>
<b>G3</b>		Project Work, Preparation, Submission of Report and Presentation	5 days	<b>27 Nov – 1 Dec 23</b>
		<b>Presentations, Personality Test/ Assessment, Interaction &amp; Valedictory</b>	<b>5 days</b>	<b>04-08 Dec 23</b>

**Note: Swachhta Shramdaan Activities- At least two hours every 2 weeks**

**OTHER ACTIVITIES**

<b>1</b>	<b>Yoga &amp; Pranayam Sessions (Monday to Saturday) excluding Gazzatte Holidays and days of field visits (0630 -0730 Hrs)</b>
<b>2</b>	<b>Swimming Sessions</b>
<b>3</b>	<b>Billiard Training</b>
<b>4</b>	<b>Trekking</b>
<b>5</b>	<b>Cultural, Music etc.</b>

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# Few Highlights from Capacity Building Programs of NWA



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