

NATIONAL WATER ACADEMY, PUNE

**Training Program on
“CLIMATE CHANGE - IMPACT ON WATER RESOURCES,
ITS MITIGATION AND ADAPTATION”**

(11 - 15 June 2018)

REGISTRATION FORM

Name (in capitals): _____

Designation _____

Organization: _____

Responsibilities (in brief): _____

Full Postal Address: _____

Tel Nos.(with STD Code) : _____

Fax No: _____ Mobile : _____

E-mail: _____

Whether require accommodation at NWA complex YES / NO

Date _____ (Signature of the participant)

SPONSORING AUTHORITY

Full Postal Address: _____

Tel Nos.(with STD Code) : _____

Fax No: _____ Mobile : _____

E-mail: _____

Date _____ (Signature and Seal)

Completed Registration Form may be sent by Fax to: 020-24380110



**Government of India
Ministry of Water Resources, RD & GR
Central Water Commission
National Water Academy Pune**

**Training Program on
CLIMATE CHANGE - IMPACT ON WATER RESOURCES,
ITS MITIGATION AND ADAPTATION**

(11 - 14 June 2018)



**Organized by
National Water Academy Pune**

INTRODUCTION AND OBJECTIVE

Climate is usually defined as the "average weather" in a place. It includes patterns of temperature, precipitation (rain or snow), humidity, wind and seasons. Climate patterns play a fundamental role in shaping natural ecosystems, and the human economies and cultures that depend on them. But the climate we've come to expect is not what it used to be, because the past is no longer a reliable predictor of the future. Our climate is rapidly changing with disruptive impacts, and that change is progressing faster than any seen in the last 2,000 years.

Rising levels of carbon dioxide and other heat-trapping gases in the atmosphere have warmed the Earth and are causing wide-ranging impacts, that include rising sea levels; melting snow and ice; more extreme heat events, fires and drought; and more extreme storms, rainfall and floods. Scientists project that these trends will continue, and in some cases accelerate, posing significant risks to human health, forests, agriculture, freshwater supplies, coastlines, and other natural resources that are vital to World's economy, environment, and quality of life.

This training program is envisaged to give participants an overview about climate change, its impacts, how it can be mitigated, and finally, if it is bound to happen then how we can adapt to it. It will also give an idea about why large reservoirs are the need of time to adapt to climate change.

It is expected that climate change will result in more and more extreme events like typhoons, hurricanes, cloud bursts, sudden storms, intense floods, intense droughts, etc. We have to take steps to face those extreme events. A good hydraulic modelling of urban drainage system is one of the steps that has to be taken to prepare our cities for much higher than normal rainfalls. This training program will include sessions on management of urban drainage system using SWMM tools, which will prepare water resources engineers of India to manage future Cities' drainage systems in a better way.

Global Circulation Models (GCM) and Regional Circulation Models (RCM) are the tools that are being used in today's IT era to predict, to some extent, the effects of climate change. They can give pretty good results based on the complexity of model and accuracy of input data. This training program will include introduction to GCM and RCM models and an overview about how they work.

Many scientist are of view that Humans have done enough damage to the environment and the climate change is bound to happen even if we control all CO₂ emissions. This makes it very important to adapt to the climate change. Green energy generation (hydro, solar, wind, tidal, etc.), green transport (electric vehicles, mass transportation systems, etc.) and innovative solutions (power from oceanic currents and sea waves, bio fuels, etc.) are the way to go to adapt to the climate change. Other measures include vertical farming and green cities. All these topics will be discussed in this training program.

With the above objective in view, the NWA is organizing a training program on "*Climate Change – Impact on Water Resources, its Mitigation and Adaptation*" to provide an insight into the various issues involved.

PROGRAM CONTENTS

The program will comprise of classroom sessions, software hands-on sessions. The program will cover the following topics:

Overview of climate change, impacts of climate change, need for large reservoirs, use of SWMM tools, GCM & RCM and adapting to climate change with the help of clean power and innovative solutions like vertical farming.

PROGRAM FEE

There is **no program fee** for participants from **Central and State Government departments**. Charges for participants from other categories are:

Category	Description	Fee in Rs. (per participant)
A.	Central/State/Local Government Depts. including their autonomous bodies:	Nil
B.	'Not for Profit' Central and State PSUs	Nil
C.	Recognized academic institutions, NGOs	1,500/-
D.	Central and State Public Sector Undertakings	10,000/-
E.	Private Companies, individuals	15,000/-

Discounts applicable: (a) 50% for PSUs of MoWR i.e. WAPCOS & NPCC (no group discount); (b) For others – 20% discount for 3-4 participants; 30% discount for 5 or more participants from the same organization. For modalities in respect of payment of fee, please refer to our website or contact the Program Coordinator.

RESOURCE PERSONS

The resource persons for the program would be subject experts from NWA, CWC & IITM.

DURATION

The participants are expected to reach NWA by the evening of 10th June 2018 and should plan to leave only after 1800 Hrs. of 14th June 2018.

VENUE

National Water Academy, Khadakwasla, Sinhgad Road, Pune 411024.
(for more info on NWA, visit <http://nwa.mah.nic.in>)

TARGET GROUP

The program intends to focus on the middle level and senior level officers of Central and State Government Departments, PSU's, Private Organizations, Academic Institutions and NGOs and provides a forum to facilitate discussions on various crucial issues associated with Climate Change.

PARTICIPATION

The nomination of the officers fitting the target profile may be sent to the Program Coordinator **latest by 28th May 2018**. The nominated officers are requested to start for the program **only after** confirmation of their nomination. The accepted nominations will be displayed on NWA's website on **30th May 2018**.

LOCAL HOSPITALITY

NWA has a self-contained residential campus, and out-station participants would be provided with accommodation in the NWA Hostel (as per the availability). **Boarding and Lodging charges will have to be borne by participants.** Airport/Railway station pickup/drop will also have to be arranged by the participants themselves.

WEATHER

During June the average temperature of Pune is generally around 28°C with pleasant climate.

CONTACT

For sending nominations or for any information, please contact:

Manish Rathore

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National Water Academy, CWC, Khadakwasla, Sinhgad Road, Pune 411024

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E-mail: nwa.mah@nic.in **Website:** <http://nwa.mah.nic.in>