

In-house Training Course on

**Climate change risk assessment and water security
challenges**

(for L1)

23-24 February 2022 (Sessions – 1)

Coordinators

Prof. Shyam R. Asolekar

Prof. Subhankar Karmakar

Prof. Munish K. Chandel



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Indian Institute of Technology Bombay

Powai, Mumbai – 400 076

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INTRODUCTION

Water is an essential component of life on the earth. Water security may be defined as the adequate protection of water systems so that the freshwater is available in sufficient quantity with acceptable quality to fulfil our basic needs of food, energy and to maintain the ecosystem. Climate change could imbalance the water security at national, regional and local scales. Therefore, we need adaptive measure to have climate change resilient water infrastructure to ensure the water security. To prepare ourselves for the water security challenges posed by the climate change, we need to understand how the climate change would impact the water systems at different scales. A comprehensive risk assessment is desired to understand the possible threats to water systems due to climate change. There is a need to identify the vulnerable points which can be affected by climate change and find methods to increase their resilience. The present training course would help the professionals to understand the risk to water security due to climate change and to provide background to understand climate resilient water system.

BROAD OBJECTIVE

To develop understanding towards risk associated with climate change and how climate resilient systems can be developed

COURSE CONTENT

- Introduction to Climate Change
- Science of systems and concept of risk
- Climate Impacts and Risk Assessment
- Human health risk and ecological risk assessments
- Climate change risk assessment and water security challenges for India
- Water-Energy-GHG nexus in urban water systems

Expected Outcome

The participants are expected to learn: 1) holistic framework of risk assessment following the latest protocol of IPCC 2) Various techniques of modelling uncertainty 3) Need of climate resilient systems to ensure water security

TARGET AUDIENCE

This Level-1 (L1) training course is designed for senior management level professionals in various government agencies working in the water sector.

RESOURCE PERSONS

The faculty constitutes experts from the Environmental Science and Engineering Department (ESED), IIT Bombay.

MODE OF DELIVERY

The training program will be offered in online mode and the details of the platform and joining links etc. will be provided to the participants.

COURSE MATERIALS

The slides used for the presentations will be provided to the participants and other references will be suggested as required.

DATES & TIME OF THE COURSE

23 February 2022 09:30 AM – 12.50 PM

24 February 2022 10.00 AM – 01.00 PM

Completed Registration form (provided in the end) should be sent to Course coordinators:

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Registration Form In-house Training Course on “Climate change risk assessment and water security challenges” for L1

23-24 February 2022 (Session 1)

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|-----------------------|--------------------------------------|
| Name (BLOCK LETTERS): | |
| Gender (M/F): | |
| Designation: | |
| Organization: | |
| Complete Address | |
| Qualification: | |
| Experience (years): | |
| Mailing Address: | |
| Telephone: | Office: Mobile: |
| E-mail | |
| Signature: | |
| Date | |