# Concept Note

**Training Programme**

# Climate Modelling and Risk Assessment Framework for Risk-Informed Adaptation Planning

The Centre for Study of Science, Technology and Policy (CSTEP), in partnership with the Department of Agriculture and Farmers' Empowerment (DA&FE), Government of Odisha, is leading a collaborative effort to enhance climate resilience in the state's agriculture and allied sector. This effort includes a series of capacity-building programmes on key climate themes such as adaptation and mitigation, climate modelling, hazard and vulnerability assessments, climate-smart agriculture (CSA), and risk-informed planning.

This concept note outlines the second training module in the series, titled 'Climate Modelling and Risk Assessment Frameworks for Risk-Informed Adaptation Planning'. Building on the foundation laid in Module 1, this programme is designed to strengthen officers' capacities to understand and apply climate analysis, as well as exposure and vulnerability information, for identifying and prioritising adaptation strategies at state and district levels. The training will be held at the CSTEP office in Bengaluru, enabling direct interaction with experts and hands-on technical sessions in a supportive learning environment.

This module will engage 15 officers (district- and state-level) from the three key Directorates of DA&FE—Agriculture and Food Production, Horticulture, and Soil Conservation and Watershed Development. Participants have been shortlisted from the Module 1 cohort on the basis of interest, aptitude, and departmental nominations.

The objectives of the training are to

- introduce participants to climate models, data sources, and analytical methods for historical climate and climate projections,
- Provide hands-on training on climate analysis to build skills in accessing, processing, and interpreting climate datasets,
- build understanding and capacity to conduct risk assessment,
- demonstrate how climate data and risk assessment outputs can guide integration of adaptation strategies in departmental planning, and
- create a technically informed cohort capable of supporting risk-based CSA decision-making within DA&FE.

The training will span two days, featuring a mix of expert lectures, interactive sessions, case-based discussions, and hands-on data exercises. Sessions will be led by faculty from the Indian Institute of Science (IISc), Bengaluru, and technical experts from CSTEP.

The expected outcomes are

- familiarity with climate modelling concepts and risk framework,
- practical ability to access, analyse, and visualise climate data relevant to Odisha,
- improved understanding of risk to the agriculture sector and ability to address drivers of risk and vulnerability, enabling evidence-backed adaptation planning, and
- formation of a technically trained cohort within DA&FE capable of applying risk-based approaches in planning.

## Logistics

The training will be conducted at CSTEP, Bengaluru, and coordinated by the CSTEP team. DA&FE will support participant nomination. Pre-configured computer systems with relevant software and datasets will be provided to all participants for hands-on work.