

CENTRE FOR ATMOSPHERIC AND CLIMATE SCIENCES 🖌

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

## **Brief of the Project**

Climate-resilient sustainable livelihood for marginal agrarian communities, through agroforestry interventions focussed on the vulnerable districts of Bihar (Begusarai) and Maharashtra (Dharashiv)

## Rationale

Indian states situated in varied agro-climatic zones have a rich legacy of traditional agricultural practices and community-based approaches for sustainable livelihood organic to the climatic regime therein. The proposed project intends to develop and implement a sustainable framework for addressing the challenges associated with the non-linear impact of climate change providing timely solutions and technology through Ecosystem-based Adaptation measures and cost-effective Nature-based solutions in the climate milieu. The intervention envisages amalgamating the traditional ecological knowledge and science-based adaptive mitigation practices for a sustainable and climate-pro agro-management system that is community-driven and directly contributes to inclusive growth. Here we present comprehensive science-backed interventions aimed to synergize traditional ecological wisdom with scientifically grounded adaptive mitigation practices, resulting in a sustainable and climate-smart agro-management system driven by the community.







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## Objectives

- i. Assessment and analysis of long-term (60 years) rainfall data over these two districts to understand the changing pattern of rainfall and extreme rainfall events
- ii. Futuristic climate change impact analysis on the rainfall over the districts under various RCP scenarios
- iii. This project will impose a positive stimulation on livelihood (agriculture and allied sectors) and biodiversity (agroforestry and others) benefits and assess their hidden or unaccounted outcomes on natural, human, social and manmade (produced) capitals.
- iv. The proper valuation of ecosystem services hence the accounting of natural resources will also help to develop an ecosystem-based adaptation model in this climate change milieu for the respective districts.
- v. This will also help to understand the policy priorities of the country in the area of sustainable food and agricultural systems.
- vi. This will also identify broad areas of place-based implementation models for specific states hence the district of India.



## Progyan Foundation for Research and Innovation (PFRI)

