

Virtual Classroom-based Training Program
on
**Eco-DRR: Blue Carbon in Achieving Forestry NDC (National Determined
Contribution) targets in Gujarat**

Through Zoom Platform

29th November 2023 (Time: 15:00 to 17:15 Hrs.)

Concept Note:

India, with its varied terrains and extensive coastline, stands poised to make a significant impact in the global effort against climate change. Committed to the Paris Agreement, India has laid out a roadmap known as the Nationally Determined Contributions (NDCs) to combat the challenges of climate change. Central to these commitments is the aim to reduce the emissions intensity of its GDP by 33-35% by 2030 from the 2005 level.

Another bold target is achieving 40% of power generation from non-fossil fuel-based energy sources by 2030. Additionally, India has committed to creating a carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through forest and tree cover by 2030.

While these ambitions signal a strong resolve, the question remains: how can India meet these targets? The answers often revolve around renewable energy, afforestation, and innovations in clean technology. Yet, there's another dimension, often underrepresented in discussions – the potential of blue carbon.

Blue carbon pertains to carbon captured by the world's marine and coastal ecosystems. Mangroves, seagrasses, and salt marshes stand out in this category. Not only do they store carbon, but they also do so at rates often ten times greater than terrestrial forests.

For a country like India, with a 7,500 km long coastline, the opportunity to harness blue carbon is immense. Coastal regions, such as the Sundarbans, the deltas of major rivers, and the long stretches in Gujarat, can play a crucial role in realizing India's NDC targets.

Gujarat, in particular, holds a unique position in this narrative. With 1,600 km of coastline adorned with mangroves and coastal ecosystems, it can be a torchbearer for blue carbon initiatives in India. While the state has undertaken considerable efforts, such as the conservation programs in the Gulf of Kutch and establishing marine sanctuaries, there's room for more

strategic and targeted action. Understanding the specific carbon sequestration rates, restoring degraded habitats, and involving local communities in conservation efforts can further amplify the potential.

To truly harness the power of blue carbon, several steps are pivotal. Firstly, there's a need for comprehensive mapping and assessment of India's blue carbon ecosystems. Modern tools, such as remote sensing and GIS, can aid this.

Secondly, conserving and restoring these habitats is crucial. Community-driven conservation models, where local livelihoods harmonize with ecological preservation, can ensure sustainability. Policies must evolve, too. Integrating blue carbon into state and national climate action strategies will provide the necessary impetus for targeted efforts. Collaborations, both national and international, will be essential, allowing India to tap into global best practices and innovative solutions. Finally, establishing monitoring mechanisms will ensure that the health and carbon sequestration capabilities of these ecosystems are tracked and optimized.

But why is blue carbon so crucial for India? Beyond the evident climate benefits, these coastal ecosystems are biodiversity hotspots. They support fisheries, offer protection against coastal erosion, and act as natural barriers against storms and cyclones. In essence, the benefits transcend mere numbers and permeate the socio-economic fabric of coastal communities.

In the grand mosaic of climate action, blue carbon might seem like one piece. But for a nation like India, with its vast coastlines and commitments to the Paris Agreement, it's a piece that can change the entire picture. Harnessing the potential of ecosystems, especially in regions like Gujarat, can not only propel India towards its NDC commitments but also safeguard its rich coastal heritage for generations to come. In the delicate balance of development and conservation, blue carbon offers a vision where both can coexist harmoniously.

This activity will satisfy the localising SDG Goals 15,13,12 & 8 and long term carbon sink creation in Gujarat.

Keeping these views in mind Virtual Class Room Training Program is scheduled to conduct VC training program 29th Nov, 2023 with the following objectives

Objectives:

1. To Introduce the Concept of blue carbon and NDC
2. To Introduce about the National & International Commitment to achieve NDC
3. To Illustrate the cumulative efforts to achieve SDG Goals.

Target Audience for Proposed Online Training

S. No.	Department	Designation
1.	Forest and Environment Department	ACF, RFO, Forester and ground staff
2.	Agriculture Farmers Welfare & Co-operation Dept.	DAO, Dy. Dir. Agri., Agri. Ext. Officer, Agri. & Horti. Supervisor, Agri./ Horti. Assistant.

Resource Persons:

1. **Prof. C.N.Pandey**, Prof. of Practice, Civil Engineering Dept., IIT, Gandhinagar
2. **Shri R.D.Kamboj**, Former Director, GEER Foundation
3. **Shri B.J.Pathak**, Former APCCF, Forest & Env. Dept., GoG
4. **Dr. Sandeep Pandey**, Associate Prof. GIDM, Gandhinagar

Expected outcome:

This will increase the capabilities of employees to understand the importance to achieve the NDC and SDG Goals.