

Climate Change and Policy



The world is changing.....Are we??? Shouldn't we???



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The cover page portrays the differential roles the stakeholders, policy planners, researchers and the fishers need to play in developing the adaptation and mitigation plans for the future. It probes on.... Are we equipped? Shouldn't we involve?

Disclaimer

Acknowledgements are due to the creative intellects of illustrations / photographs included in the ClimEd series. They are being sourced as an informative tool to its target audience on an "as-is, as-available" basis for educational purposes only.

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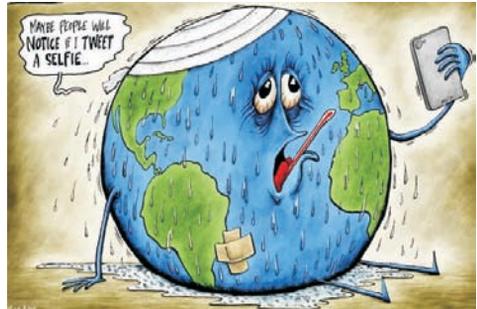


Climate change

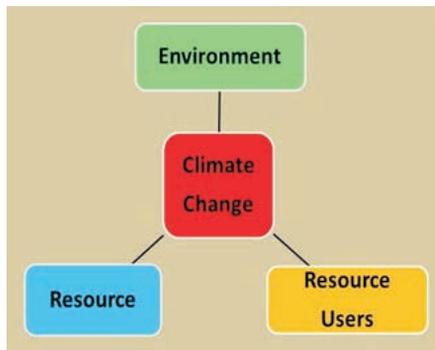
Climate change is a large scale, long term shift in the planet's weather patterns or average temperature.

Global warming:

A gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect caused by increased levels of carbon dioxide, CFCs and other pollutants.



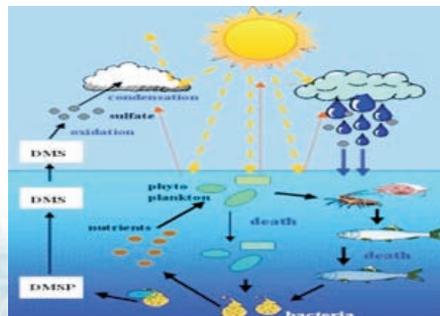
The looming threat:



- The earth's climate has been significantly changing on global and regional scales since the preindustrial era, with some of these changes owing to human activities. The changes observed in the regional climate have already affected many of the physical and biological systems, in generating a negative effect on social and economic systems.
- Based on a broad classification Climate change impacts the Environment, Resource and Resource users.

Our focus- The Indian coast:

- India with a long coastline of 8129 km supports almost 30 percent of its human population.
- Coastal fisheries are of immense importance as they provide livelihood opportunities for a large share of the population, apart contributing to revenue and providing food security.



Climate change and its effects on species

Oil sardine: An increase in recruitment and catches of oil sardine during the post-South west monsoon season along the coastal region, especially along the Kerala coast, is expected in the future due to warming, elevated Sea Surface Temperature (SST), favourable wind and increasing Coastal Upwelling Index (CUI) inducing higher Chlorophyll-A concentration during the southwest monsoon.



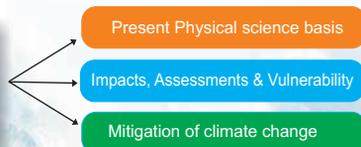
Indian mackerel: The Indian mackerel is able to take advantage of the increase in temperatures of subsurface seawater. Therefore, with increase in global temperatures and sea surface temperatures, it is likely to move northwards and deeper into the seas surrounding it.

Threadfin breems: The threadfin bream spawns optimally in SST between 27.5°C and 28.0°C and when the SST exceeds 28.0° C, the fish shifts the spawning activity to seasons when the temperature is around the preferred optimum. Therefore in the climate change context, in the 2030s, if the SST exceeds 28°C during April to September, an increase in catch might take place in the comparatively cooler months of October to March.

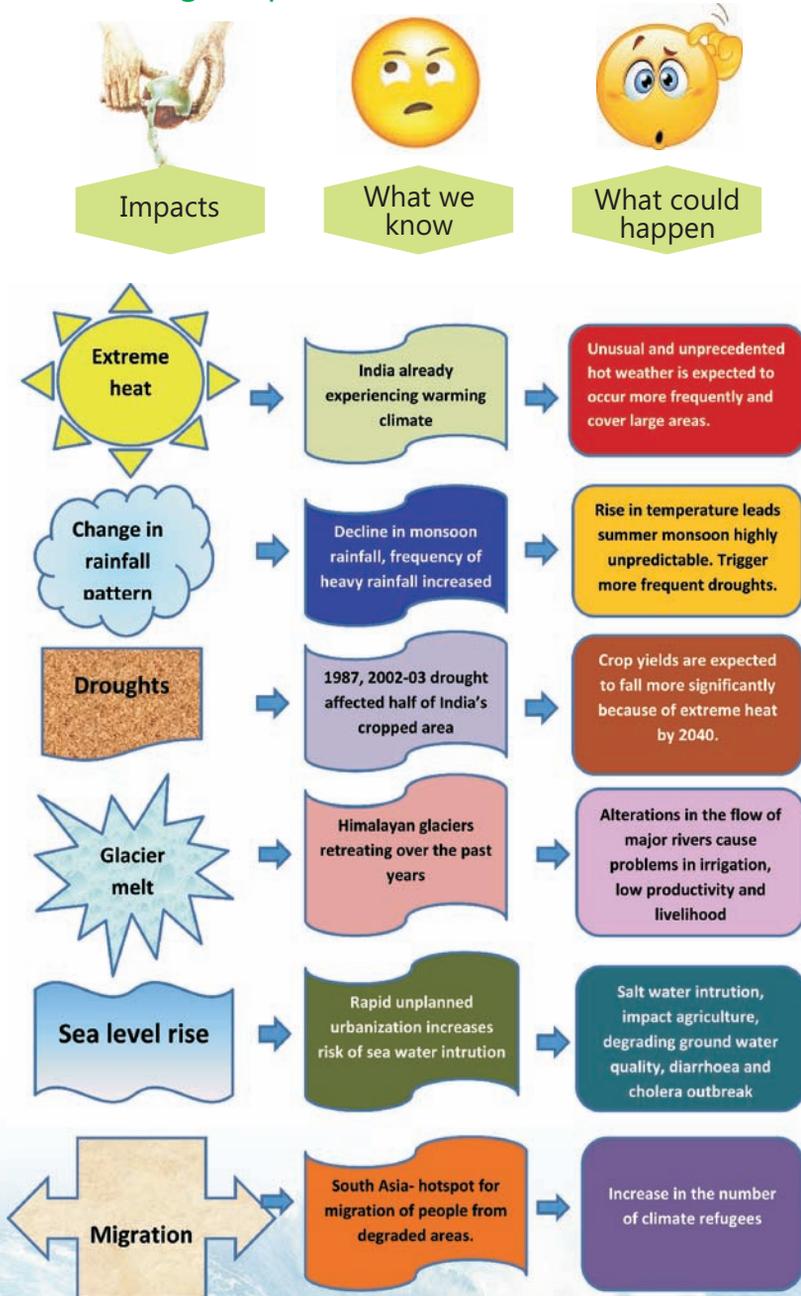


Assessing climate change

The Intergovernmental Panel on Climate Change (IPCC) established by the United Nations Environmental Programme (UNEP) and the World Meteorological Organization



Climate change impacts- Present & Possible future



- Protocol offers an additional means to meet their targets by way of three market-based mechanisms: (i) International Emissions Trading (IET); (ii) Clean Development Mechanism (CDM); and (iii) Joint implementation (JI).



C. The Cancun Agreements

- The Cancun Agreements, reached on December 11 in Cancun, Mexico, at the 2010 United Nations Climate Change Conference.
- The main objectives include: (i) mitigation; (ii) transparency of actions; (iii) technology; (iv) adaptation; (v) forests; (vi) capacity building; and (vii) finance.
- The objectives also include setting up the Green Climate Fund to disburse \$100 billion per year by 2020 to developing countries to assist them in mitigating Climate Change and adapting to its impacts.



D. The Durban Agreement

- The United Nations Climate Change Conference at Durban in 2011. The areas of coordinated and complementary action and implementation include:
- The launch of a new platform of balanced negotiations under the Convention to deliver a new and universal GHG reduction protocol.
- Second commitment period of Kyoto protocol.
- To scope out and then conduct a fresh global Review of the emerging climate challenge.



E. Paris Climate Change Conference

- The twenty-first session of the Conference of the Parties (COP) took place from 30 November -11 December 2015, in Paris, France.
- An historic agreement to combat climate change and unleash actions and investment towards a low carbon, resilient and sustainable future was agreed by 195 nations at the 21st Conference of the Parties of UNFCCC.



India and Emissions

- India's emissions are estimated to be of the order of 1.33 billion tonnes of the carbon dioxide equivalent GHG emissions in 2007.
- Fourth largest greenhouse gas emitter accounting the global emissions (5.8%).
- Projection rate of emission growth about 85% by 2030.
- As in Copenhagen Accord, India pledged to reduce its Co2 intensity by 20-25 % by 2020.
- Use of transfer of technology and low cost international finance including from Green Climate Fund (GCF).
- Create an additional carbon sink of 2.5 to 3 billion tonnes of Co2 equivalent through additional forest and tree cover by 2030.



National Plans/ Policies/ Programmes

National Environment Policy- 2006

- Identification of key vulnerabilities of India to Climate Change, in particular impacts on water resources, forests, coastal areas, agriculture and health.
- Assessment of the need for adaptation to Climate Change
- Encourage reuse and recycling.
- Strengthening informal sector.
- Encouragement to the Indian Industry to participate in the Clean Development Mechanism (CDM).

Prime Minister's Council on Climate Change

- High Level advisory group- Government Representatives and Non- Government Members.
- Coordinates National Action Plans for assessment, adaptation and mitigation of Climate Change
- Facilitate inter-ministerial coordination and guide policy in relevant areas

Climate Change Action Programme (CCAP)

- Implemented during 12th Five year plan.
- Aims at advancing scientific research, information and assessment of the phenomenon of Climate Change, building an institutional and analytical capacity for research and studies in the area of Climate Change, and supporting domestic actions to address Climate Change through specific programmes and actions at the national and state level.
- The scheme comprises of eight activities, of which, three relate to scientific studies on Climate Change, two to institution and capacity building and three others to domestic and international actions.

Indian Network for Climate Change Assessment (INCCA)

- Comprises of 127 research institutions and they undertake research on the science of Climate Change and its impacts on different sectors of economy across various regions of India.



Prospects in fisheries sector

- Possibilities of low carbon emissions in Indian fisheries sector mooting trade and carbon credits
- Green fishing – popularized and supported with incentive based policies.
- Scale it up- Kyoto Protocol, where Annex I parties can pay in terms of CER (Certified Emission Reduction) to Annex II parties.
- Leads to achieving a fishery induced blue carbon economy.

The Missing Piece

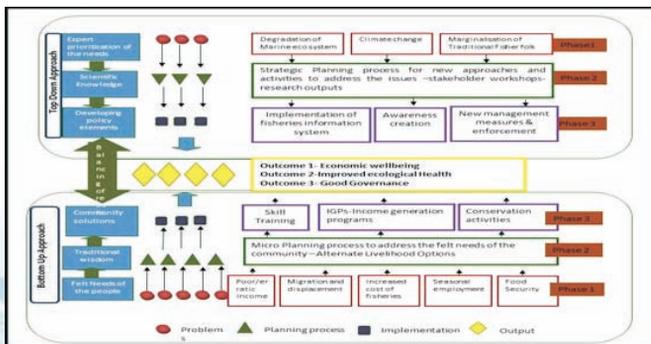


Holistic Policy Framework

Although climate change agreements emphasizing carbon emission reduction have been reached through international approaches, the policy measures should be designed to meet the obligations and objectives set by such agreements and been implemented at the national or regional level.

Balancing of Results:

- The existing climate change policies are blanket measures taken at a national level. The policies are not specific in terms of target population.
- With climate change being a national priority and its impact felt at local environment, resource and resource users, there is a need to integrate both Top down as well as Bottom up approach.



Coastal Climate Change - Impacts and Outcome

