

An Innovative Approach to Preparing a Sub-National Climate Change Action Plan: Case of Orissa State (India)

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Orissa DPL-3 Pillars

- Higher capital outlays and more effective public expenditure.
 - strengthened revenue mobilization and tax administration
- Emphasis on initiatives that will directly benefit the poor.
 - technical institutes, improved access to water, roads, electricity, equitable sharing of mineral resources
- Actions to manage environmental changes that hurt the poor.
 - strengthening monitoring and enforcement of SPCBs, initiating climate action plan, promoting renewables, protecting forest resources

Some progress

- Orissa's average growth rate was 8.5 percent a year, compared with 7.8 percent for all India during 2002-2007.
- Top investment destination for mineral-rich industries (steel, aluminum , cement and power sector) – 49 MoUs signed in steel
- Major exporter of power in the near future (generation capacity to increase from 2,800 mw – 60,000 mw in the next 10 years)

What is unique about Orissa CAP?

- First state (sub-national) CAP in India
- Bottom-up approach
- Consultative process
- Ownership across different Departments
- Diligent use of donor resources
- Donor coordination (DFID+WB)

Grassroots → Knowledge Sharing → Policy
Debate → Action

Some challenges

- Getting traction at the highest levels
- Bringing civil society on board
- Highlighting climate change in state pressed with other severe environmental challenges (and high poverty rates)



APPROACH

Frameworks for Preparing Climate Change Action Plan

Framework	Comments
<p>GTZ: CLIMATE CHANGE INFORMATION FOR EFFECTIVE ADAPTATION</p>	<p>GEARED TO PROVIDE A VERY BASIC KNOWLEDGE TO PRACTITIONERS PRACTICAL APPROACHES TO CLIMATE CHANGE INFORMATION AND ITS INTERPRETATION AND REPORTING</p>
<p>USAID: ADAPTING TO CLIMATE VARIABILITY AND CHANGE</p>	<p>MORE OF A GUIDANCE MANUAL MORE AT PROJECT LEVEL RATHER THAN THAT A NATIONAL/SUBNATIONAL STRATEGY/PLAN GUIDELINE</p>
<p>UNDP: ADAPTATION TO CLIMATE CHANGE: THE NEW CHALLENGE FOR DEVELOPMENT IN THE DEVELOPING WORLD</p>	<p>IDENTIFY ADAPTATION OPTIONS, SET PRIORITIES, DO ADAPTATION PLANNING AND INTRODUCE IT AS PART OF NATIONAL POLICY FRAMEWORK AND PLANNING (matrix for assessing vulnerability, current climate risks, future climate risks, and current and changing socio-economic conditions)</p> <p>INSTITUTIONAL ARRANGEMENTS NEEDED TO PLAN AND IMPLEMENT ADAPTATION</p>

Frameworks for Preparing Climate Change Action Plan

Framework	Comments
UK/Australia:	IDENTIFIES METHODS AND TECHNIQUES FOR RISK ASSESSMENT AND FORECASTING, OPTIONS APPRAISAL AND DECISION ANALYSIS
WORLD BANK: MAINSTREAMING CLIMATE CHANGE ADAPTATION AND MITIGATION IN DEVELOPMENT PROGRAMS	OFFERS GUIDANCE ON GENERAL MEASURES THAT NEED TO BE TAKEN IN EACH COUNTRY/REGION TO ENSURE THAT CLIMATE CHANGE CONSIDERATIONS ARE MAINSTREAMED INTO DEVELOPMENT PROGRAMS PROVIDES INDICATION OF IMPORTANT PATHWAYS BY WHICH CLIMATE CHANGE CAN IMPACT ON THE EFFECTIVENESS OF DEVELOPMENT PROGRAMS AND WHAT THESE PATHWAYS IMPLY FOR DESIGN OF SUCH POLICY

OECD (DAC) SEA APPROACH

- Strategic Environmental Assessment (SEA) Approach: Analytical and participatory approach that aims to integrate environmental considerations into policies, plans and programs (PPP) and evaluate the inter linkages with economic, environmental and social considerations
- Using SEA for Climate Change Action Plan
 - Extent to which PPP could be vulnerable
 - Extent to which CC risks have been considered in formulating PPP
 - Extent to which PPP could lead to mal-adaptation
 - Amendments to PPP ... climate-proofing

Orissa CAP Approach

Priority Sector/ Area	Objective	Actions	Responsibility (agency, pvt. Sector, civil society, academic)	Funding Required	Sources (international, inter-governmental, local)
Agriculture	To assess climate vulnerability of agriculture	<p>Expand use of traditional rainwater harvesting and water conserving techniques</p> <p>Prepare a adaptation manual</p> <p>Identify best practices in irrigation</p>	DoRD (OWSM), DoWR, WORLP	\$\$\$	

A number of studies already exist..

- “Addressing Vulnerability to Climate Change through an Assessment of Adaptation: Issues and Options,”
 - **Living Intelligently with Floods (WVB)**
- “Climate Variability and Change: A Case Study in Flood-Prone Orissa”
 - **Climate Change Impacts in Drought-and Flood-Affected Areas: Case Studies in India (WVB)**
- Vulnerability to Climate Induced Natural Disasters with Special Emphasis on Coping Strategies of the Rural Poor in Coastal Orissa (Roy, Mruthyunjaya, Selvarajan)
 - **Paper prepared for the UNFCCC COP 8 Conference**
- Potential Impacts of Climate Change in Western Orissa: Climate change vulnerability profile generated by integration of adaptive capacity and climate sensitivity profiles
 - **TERI, Coping with global change: Vulnerability and adaptation in Indian agriculture**
- Climate Change Adaptation in Western Orissa: A Policy Brief
 - **DFID Report**
- State Climate Change Action Plan: A Scoping Report

What studies have said so far...

- **23 per cent increase** in annual mean rainfall in deltaic region and **increase between 2.4 degree Celsius and 3.7 degree Celsius** increase in average annual maximum temperatures .
 - substantial shift in pattern of rainfall towards the flood-prone coastal regions with dramatic increase in the incidence of flooding in Orissa.
 - declining yields leading to reduction in farmer profits.
- As a result of **high concentration of rainfall during the few monsoon months**, rivers in the state carry huge discharges that result in devastating floods, particularly in deltaic areas and coastal plains.
- The inadequate capacity of riverbanks to contain high flows, **excessive silting in riverbeds**, lack of an adequate drainage system and weak embankments leads to the surge of water in many areas.

Stakeholder Consultations

Industrial/Mining Clusters, Coastal Areas, Agricultural Belt, Tribal Belt and Urban Centers

Represented by:

- Fishermen Associations
- Farmer groups
- SHG groups
- Trade unions
- Industry Associations
- STs and SCs and women

General Feedback

- Interdepartmental and intersectoral convergence is critical
- Streamlining the entire institutional mechanism is required for effective implementation of any action plan
- There is a need for a separate Agency / Department to coordinate climate change
- Monitoring and verification of CAP implementation – Independent necessary
- Demonstration for new initiatives / technology followed by scale-up should be the approach
- Transparency and public participation is key
- Key priorities in the website for wider comment

<http://orissa.gov.in/portal/occap.pdf>

Format for Feedback Provision

Issues	Comments/ Response	Agency	Response o Response
Thermal Power	The anticipated expansion of thermal power generation capacity from 4000 MW to 55000/60000 MW is definitely not an environment-friendly solution. This should rather be a part of renewable energy portfolio that too in a phased manner.	Biswajit Mohanty kachhapa@gmail.com	To minimize GHG emission several points have been covered in Energy/KP/I (e.g.All the thermal power plants should oblige to develop solar power at 1 %.)
Green Cess / Clean Energy Fund	The Government of Orissa may propose a green cess of 5 paise / kWh to be levied on the electricity consumption by industrial and commercial consumers. It will be a very welcome move for promotion of renewables in the state. It would	Chandrashekhar Mishra Principal Consultant Canyon Consultancy Services	The suggestion shall be incorporated in Energy/KP/I It is proposed to introduce green cess as follows: 1 paise/ unit for LT 5 paise/ unit for HT & EHT

Concluding Remarks

- Orissa CAP is one of the first in India- Learning-by-doing approach
- GoO's Extraordinary commitment
- Substantive time and involvement of GoO Convenors, Chairperson and Members
- Aably supported by World Bank and DFID Experts
- Stakeholder consultation workshops and web consultations -- very useful feedback



Thank You