

LEAD UPDATE

Changing Climates: Pakistan's Options for Adaptation and Mitigation

Stakeholders Consultation, Karachi- February 14, 2008

Climate change (CC) is emerging as the most critical challenge of our times. According to the fourth assessment report of the Intergovernmental Panel on Climate Change (IPCC), average earth temperature is set to rise between 1.4°C and 6°C, by the end of the current century. Most of this change is driven by human activity. The ecological and socio-economic costs of CC are forecasted to be enormous for the entire planet, particularly for regions more susceptible to changes in the climate. Pakistan is amongst countries that are highly exposed to the impacts of climatic events, particularly because of its agrarian economic base and resource scarcity. However, some of the worst case scenarios predicted for the country can be averted, if timely action is taken and adaptation strategies are adopted to cushion against the shortfalls of CC. The challenge for Pakistan is to develop effective response, suited to unique regional conditions.

Action Taken

Responding to the growing threat of global warming and increasing vulnerability of developing nations, LEAD Pakistan partnered with the British High Commission to conduct a scoping study on Pakistan's Options for Adaptation to and Mitigation of Climate Change Effects. The exercise is part of LEAD's broader, interdisciplinary Climate Change program that builds upon the organization's policy research and capacity development expertise and the strength of its partnerships with the government, industry and civil society.

To generate data and discussion for the scoping study, LEAD Pakistan is holding consultations with stakeholders from government, media, industry, academia and civil society in Lahore, Karachi, Peshawar and Islamabad.

The Karachi consultation was hosted by Pakistan State Oil (PSO), the leading national oil company and highlighted linkages with key industrial stakeholders.

Objectives

- To map the participating stakeholders' understanding on the CC threats to Pakistan.
- To bring together groups of key actors including government, civil society, academia and corporations on a single platform, for exchanging knowledge.
- To develop a shared understanding among the stakeholders on the actions that need to



taken in response to the identified climate change adaptation and mitigation needs.

Discussion

Opening discussions centered on the need for participatory approaches in framing CC policies

LIST OF PARTICIPANTS

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Training Session Participants



Certificate Distribution Ceremony

and programs and adopting multi-actor modes for decision making and governance.

The major role and responsibilities of energy companies in the global warming mitigation process were discussed. Participants were informed about some of the green initiatives of PSO, such as the additization of fuels to reduce smoke emissions from vehicles and control of restricted substance.

Experimenting with alternative energy sources, the company had also taken the unique initiative of powering one of its flagship retail outlets with solar energy and had even installed a pilot project in Port Qasim to harness wind energy. PSO has signed a Memorandum of Understanding with Climate Change Capital (CCC), under which CCC would undertake projects for greenhouse gas reduction and implement them across PSO's oil storage and related facilities, for generating certified emission reductions (CERs).

Following the inaugural event, facilitator made a presentation on Pakistan's Options for Climate Change Adaptation and Mitigation, based on a background paper circulated among participants prior to the event. Vulnerability factors for Pakistan vis-à-vis climate change impacts, particularly in the areas of agriculture and food production, water and energy resources and marginal zones were highlighted. Warning against the threat of global warming and rising sea levels in coastal zones, Mr. Hamid cited the example of recent tropical cyclones and floods that had caused havoc in Sindh and Balouchistan and affected millions of people. Describing the ecological vulnerability and resource scarcity of developing countries, he advocated the need for shifting to a less carbon intensive economy in Pakistan and devising strategies for meeting the pressing challenges of CC. Working groups explored the effects of climate change on three thematic areas, namely Water Resources, Ethics and Governance and general Environmental Impacts. Participants analysed the implications of CC for their respective thematic sectors.

Key Issues & Recommendations

WATER RESOURCES

The group identified increasing frequency and intensity of droughts and floods and rising sea levels as major climate change threats in Pakistan and listed issues associated with the projected scenarios, including: widening gap between water

supply and demand and consequent issues of water pricing; degradation of water quality; lower agricultural productivity; increasing incidences of sea intrusion on coastal settlements; income loss risk to fishing industry; and general adverse affect on poverty reduction targets.

Recommendations

- Putting in place effective Disaster Management and early warning systems, especially for sensitive regions and sectors.
- Introducing water harvesting schemes and increasing water storage capacity, including storage of flood water for use.
- Improving efficiency of water usage in irrigation systems to reduce losses
- Recycling water for multiple uses.
- Applying water metering and budgeting systems.
- Raising awareness of stakeholders for attitudinal change.
- Strengthening legislation to conserve and protect existing water sources.

ENVIRONMENTAL IMPACTS

Contributing to deforestation in Pakistan are natural causes, such as declining water availability and also socio-economic causes, including lack of governance and political will to protect forests. Lack of cheaper alternative energy sources meant the continued reliance of rural communities on fuel wood. Desensitization of duty holders to the causes and impacts of deforestation was also a contributing factor to the problem.

Disturbances in marine ecology is endangering different types of marine species and systems. It is difficult to estimate the actual level of impact, as only 2% of bio-resources have so far been mapped in Pakistan.

Increasing threats of flooding, hurricanes and sea intrusions exist for population of coastal zones. Damages to these settlements, especially in Karachi, are causing heavy financial losses.

The impact of CC on marine economy could also create an environmental refugee crisis in the country.

Recommendations

- Scientific Management of forest

LIST OF FACILITATORS

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resources and reforestation according to forestry systems.

- Encouragement of Agro Forestry.
- Massive afforestation campaigns.
- Awareness raising and public sensitization programs (information should be included in school curricula).

ETHIC & GOVERNANCE

Decision makers have so far been taking an ad hoc and piecemeal approach towards policy formulation. There is a lack of coordination and integration among public policy programs and a disengagement of stakeholders from decision making processes.

Agencies are playing a dual role i.e. action implementation and monitoring are carried-out by the same agencies, which introduces biases and inefficiencies in the system.

Recommendations

- Formation of an independent national commission under a legislation with a charter (with government as an important stakeholder amongst others). The role of the commission should be to study issues, bring all stakeholders on board for debate and formulation of policy options, provide policy advice and undertake action planning.
- Creation of an Environmental Index to monitor progress and gather feedback.
- Improving capacity of all stakeholders for mainstreaming environmental issues into projects and plans.
- Implementation/strengthening of biodiversity protection laws.
- Involvement of communities in designing and implementation of wildlife conservation programs.
- Mapping of bio resources.
- Pre-planning and framing effective policies for addressing risk of ecological refugees.

Conclusion

Stakeholders in Karachi felt that the hazard of immediate natural disasters is highest for stakeholders in coastal zones. Immediate adaptation strategies need to be unfolded for these high risk groups. The knowledge on CC implications for marine ecology in Pakistan needs to be enhanced further, for more accurate projections of probable impacts.

It was also agreed that the role of the industrial sector in addressing the CC challenge needs to be recognized in Pakistan and industry has to be taken on board for planning mitigation and adaptation measures.