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Integrating Climate Change and National Planning – A Sustainable Development Framework for India

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Introduction: Sustainable Development & Climate Change

- Strong Linkages between Sustainable Development (SD) and Climate Change (CC)
- Path breaking research – impacts of climate change on infrastructure in India (Shukla et al, 2003)
 - Conventional planning approaches vs reverse impact analysis
- Acknowledged by GoI, but not explicitly considered in plan
 - National Action Plan on Climate Change (2008) does consider missions that give equal consideration to mitigation & adaptation
- Significant opportunities in terms of choice of development pathways guided by long-term decision making vis-à-vis CC
 - To avoid lock-ins for future generations

11th Plan Strategies – Linkage with CC

- How the strategies are aligned to the cause of addressing issues related to CC?
- Long-run desired outcome is to enhance –
 - Food security
 - Energy security
 - Water security
 - Health security
 - Environmental security
 - Livelihoods security
- Multiple benefits
- Development path is best achieved when aligned with the SD pathway

11th Plan Strategies – Linkage with CC (An example)

Infrastructure	<ul style="list-style-type: none"> • Comprehensive plan for development of infrastructure, especially in rural areas and in the remotest part of the country (the total investment to be raised from 5.43% in 2006-07 to 9.34% in the terminal year of the 11th plan) • Increase in public sector investment and also PPP, wherever possible 	<p>Enhanced energy security, livelihoods security</p> <p>Enhanced adaptation capacity due to improved skills, flexibility to shift locations/vocations</p> <p>Enhanced adaptive capacity to deal with extreme events from access to advanced information and communication systems</p>
Energy	<ul style="list-style-type: none"> • Efforts to ensure that rural electrification does not focus on households but expands to agriculture • All households to be provided with clean cooking fuel at reasonable prices (for those who cannot afford, fuel-wood plantations within 1km of habitation) • Prices of energy to reflect true social cost (such a pricing system to be established in the 11th plan) • Appropriate policies to promote renewables by linking subsidies to outcomes rather than outlays 	<p>Enhanced energy security, livelihoods security, food security, environment security</p> <p>Lower GHG emissions and local emissions; lower fossil fuel imports; reduced pressure on land, resources and ecosystems</p> <p>Higher adaptive capacity due to enhanced reach of health/education facilities dependent on electrical equipments and flexibility of economic activities in rural areas</p>

Source: GoI, 2008a; GoI, 2008b, GoI, 2008c

11th Plan Strategies – Linkage with CC (Another example)

<p>Goal 7: Ensure environmental sustainability</p> <p>Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources</p> <p>Target 10: Halve by 2015 the proportion of people without sustainable access to safe drinking water</p> <p>Target 11: Achieve by 2020 a significant improvement in the lives of at least 100 million slum dwellers</p>	<ul style="list-style-type: none"> •Capacity addition of 16553 MW hydro, 3380 MW nuclear (out of the total of 78577 MW capacity addition) •Increase forest and tree cover by 5 percentage points (<i>22.8% of forest cover of the total land area with an annual change of 0.4% between 1990-2005</i>) •To treat all urban waste waters to clean rivers by 2011-12 •Increase energy efficiency by 20% by 2016-17 •Clean drinking water to be available to all by 2009 (<i>14% population not using improved water source (2004)</i>) •Ensuring electricity connection to all villages and BPL households by 2009 & reliable power by the end of the plan [<i>(56% electrification rate (2000-05), 487.2 million population without electricity(2005))</i>] <i>Share of TPES; coal (38.7%), oil (23.9%), natural gas (5.4%), hydro, solar, wind, geothermal (1.7%) , biomass and waste (29.4%) and others (including nuclear) is 0.8%. for 2005</i> 	<ul style="list-style-type: none"> •Lower GHG emissions and local emissions; lower fossil fuel imports; reduced pressure on land, resources and ecosystems •Higher adaptive capacity to climate variability due to enhanced water supply •Resilience to cope with health impacts of climate change due to access to clean water and electricity •Higher adaptive capacity due to enhanced reach of health/education facilities dependent on electrical equipments and flexibility of economic activities in rural areas
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Source: HDR, 2007 (Data in Italics); GoI, 2008a; GoI, 2008b; GoI, 2008c

Literature Review

- **According to the TAR (IPCC, 2001), “the development paths and the choices that define them will affect the severity of climatic impacts (not only through exposure and sensitivity) but also through affecting adaptive capacities of the systems influenced”**
- **Sustainable development policies and climate related policies reinforce each other (Munasinghe et al, 2005; Swart et al, 2003)**
- **Dual relationship between sustainable development and climate change (Beg et al, 2003; McGray et al, 2007)**
- **Assessment of SD and climate change in the ‘present’ context considers how current development can be made more sustainable.**

Methodology

- **Qualitative Methodology**
- **Intensive stakeholder consultations**
- **Bottom-up approach**
- **Intense consultations with experts, citizens, and government officials**
- **Archival research and literature survey**

Mainstreaming CC into national planning

Participation by citizens (Fosters good governance; Promotes transparency; Enhances social justice) — World Bank (2007)

S.N O.	INTERVENTION	ILLUSTRATIVE EXAMPLE
1	Planning & Accountability	Social Accountability and Participatory Planning in Kerala
2	Accountability & Transparency	Participatory approaches in Public expenditure management, India: Mazdoor Kisan Shakti Sangathan & the Right to Information Campaign
3	<i>Program Implementation</i>	<i>Slum Networking Project in Ahmedabad</i>
4	Accountability/Audit/Program evaluation (Feedback)	Report Cards on Public Services in Bangalore

Roadmap to integrate CC and SD

- **Conventional Climate Centric (CC) Approaches vs Sustainable Development (SD) Pathways**
- **CC leads to**
 - **HUGE MITIGATION AND ADAPTATION COSTS**
- **SD leads to**
 - Lower mitigation costs , besides opportunities for **“co-benefits”** w/o sacrificing national agenda of enhancing social and economic development

The Framework

According to Shukla et al (2008), “Sustainability framework rests on aligning economic development policies, measures and actions to gain multiple co-benefits, particularly so where the institutions of governance, rule of law and markets are still evolving”

Step 1: Does the policy choice induce society to introduce significant behavioural, technological, institutional, and economic changes?

Less use of resources per unit of output and 3R.

Embedded and incremental energy needs.

Usage of information technology for sharing resources
adoption of policies of sustainable urban transport (like metro rail, or bus rapid transit systems)

However such a path transition entails major soft and hard changes in the nature of society; hinged on behaviour, technology, institutions and the nature of the economy.

Step 2: How does a particular policy choice affect various development indicators?

Whether the policy choice helps in improving the development index of individuals in particular, and the society in general.

Choices made today might affect both present and future generations in terms of triggering a chain of events.

These events should ultimately lead to building more resilience in the economic and social system of the society. For eg, investments in transport infrastructure

Step 3: Does the policy choice help in building human and social capital?

Whether the policy choice is translating into building substantial human and social capital, through capability building.

For eg, investment in irrigation networks and corresponding institutions of governance help in risk adaptation and at the same time builds significant social capital through capability upgradation.

Step 4: Does the policy choice integrate social, economic and environmental issues?

The policy choice should ensure that economic growth is not compromised, social equity is maintained and environmental resource sustainability is ensured.

SD does not preclude the use of exhaustible natural resources but requires it to be offset.

For eg, in the water sector, without ensuring proper recharge mechanisms for ground water, water withdrawal would end in catastrophic results. Therefore, SD does not discourage water withdrawals but urges for a proper mechanism to recharge the groundwater systems.

Step 5: How does the policy choice affect adaptive capacity of populations?

The ability of adapting to climate change is intertwined with SD and poverty reduction.

In the positive sense, enhancement of adaptive capacity entails a variety of similar actions to SD and poverty reduction (eg, improved access to resources and improved infrastructure).

For eg, ensuring latest technology transfer to the hinterland ensures that the population is better adapt themselves to the vagaries of nature and therefore, would not enter into the vicious trap of poverty.

Step 6: Does the policy making process involve key stakeholders?

All the above tools are ineffective if the key member of the entire set of stakeholders i.e. the citizen is not involved in the process of decision making and making choices about their future.

For eg, behavioural changes envisaged in the SD framework cannot be achieved unless and until citizens are convinced about its benefits in terms of achieving all round security.

CONCLUSIONS:

- The most effective means of achieving the integration of climate change needs and development priorities is to integrate the two with routine policies of the government.**
- Involvement of the key stakeholder (the common citizen) is the key to achieving seamless integration of the two issues**
- MDGs offer a good indicative direction and as does national plans, but formulation of the policies without the key individual would not help in bringing about the desired transition.**

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