

Climate Change : Action Plan Of India

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Introduction:-

Recognizing that climate change is a global challenge, India is engaged in multilateral negotiations in the UN framework Convention on climate change in a positive constructive and forward looking manner. To make India's contribution towards combating climate change, India has prepared "National Action Plan for climate Change" (NAPCC) on 30th June 2008. The plan outlines eight "National Missions" running up to 2017, and Minister's Council on Climate change by December 2008. NAPCC comprises several targets like energy use, promoting energy efficiency and renewable energy, as well as improved research capacity on climate change issues. Other targets are water efficiency, agriculture, forestation and ecosystem conservation. The NAPCC addresses the urgent & critical concerns of the country through a directional shift in the development pathway. The NAPCC identifies measures that promote development objectives while also yielding co-benefits for addressing climate change effectively. It outlines a number of steps to simultaneously advance India's development & climate change related objectives of adoption & mitigation. The eight national missions from the core of the national action plan, representing multi-pronged, long-term & integrated strategies for achieving key goals in the context of climate changes.

Study Area

The area selected for the present study is situated between 8^oN to 37^o N latitude and 68^o07' to 97^o25' E. longitude. India geographical area spread over 32, 87, 263 sq. km. The India has a population of around 121 crore (2011 Census). The nation is highly urbanized with 28 per cent people residing in urban areas.

Data base and methodology

The study is based on the secondary information supplemented with internet and library

sources. Obtained data have been analyzed based on both qualitative and quantitative method.

Objective

The study will seek to study to help to launched a major R & D programmed which could draw upon international cooperation as well, the enable the creation of more affordable, more convenient solar power system and to promote innovations that enable the storage of solar power for sustained, long-term use. It also aims to optimize water use efficiency by 20% by developing a framework of regulatory mechanisms having differential entitlements and pricing. In addition, the Water Mission calls for strategies to tackle variability in rainfall and river flows such as enhancing surface and underground water storage, rain water harvesting and more efficient irrigation systems like sprinklers or drip irrigation.

National Response Network National Action Plan I. National Solar Mission

The main aspect of this mission is to significantly increase the share of solar energy in the total energy mix. There is also the need to expand the scope of other renewal & non-fossil options such as nuclear energy, wind energy & biomass. Due to longer hours & greater intensity of sunshine per day in India, solar energy has great potential as future energy source. It also has the advantage of permitting a decentralized distribution of energy, thereby empowering people at the grassroots level. Another aspect of the solar mission is

II. National Mission for Enhanced Energy Efficiency

The energy conservation act of 2001 provides a legal mandate for the implementation of the energy efficiency measures through the institutional mechanisms of the bureau of energy efficiency (BEE) in the central Government & designated agencies in each state. A number of schemes & programmes have been initiated & it is

anticipated that these would result in a saving of 1000 MW by the end of 11th Five year plan in 2012. To enhance energy efficiency, four new initiatives are suggested.

1. A market based mechanism to enhance cost effectiveness of improvements in energy efficiency in energy-intensive large industries & facilities, through certification of energy saving that could be traded.
2. Accelerating the shift to energy efficient appliances in designated sectors through innovative measures to make the product more affordable.
3. Creation of mechanisms that would help finance demand side management programmes in all sectors by capturing future energy savings.
4. Developing fiscal instruments to promote energy efficiency.

III. National Mission on Sustainable Habitat

A national mission on sustainable habitat will be launched to make habitat sustainable through improvements in energy efficiency in buildings, management of solid waste & model shift to public transport. The mission will promote energy efficiency as an integral component of urban planning & urban renewal through three initiatives.

1. The energy conservation building code, which address the design of new & large commercial buildings to optimize their energy demand, will be extended in its application & incentives provided for retooling existing building stock.
2. Recycling of material & urban waste management will be a major component of ecologically sustainable economic development. India already has a significantly higher rate of recycling of waste compared to developed countries. A special area of focus will be the development of technology for producing power from waste. The national mission will include a major R & D programmed, focusing on bio chemical conversion, waste water use, sewage utilization & recycling options whenever possible.
3. Better urban planning & model shift to public transport. Making long term transport plans will facilitate the growth of medium & small

cities in ways that ensure efficient & convenient public transport.

4. In addition, the mission will address the need to adapt to future climate change by improving the resilience of infrastructure, community based disaster management & measures for improving the warning system for extreme weather events. Capacity building would be an important component of this mission.

IV. National Water Mission

The NAPCC recognizes the Himalayan ecosystem as vital to preserving the ecological security of the country. It consists of forests; perennial rivers which are a source of drinking water, irrigation, and hydropower; rich biodiversity; and is a major tourist attraction. All these are in danger from climate change through increases in temperature; changes in precipitation patterns, drought and glacier melt.

The plan calls for empowering local communities especially Panchayats to play a greater role in managing ecological resources. It also reaffirms the following measures mentioned in the National Environment Policy, 2006.

- Adopting appropriate land-use planning and watershed management practices for sustainable development of mountain ecosystems.
- Adopting best practices for infrastructure construction in mountain regions to avoid or minimize damage to sensitive ecosystems and despoiling of landscapes.
- Encouraging cultivation of traditional varieties of crops and horticulture by promoting organic farming, enabling farmers to realize a price premium.
- Promoting sustainable tourism based on best practices and multi-stakeholder partnerships to enable local communities to gain better livelihoods.
- Taking measures to regulate tourist inflows into mountain regions to ensure that the carrying capacity of the mountain ecosystem is not breached.
- Developing protection strategies for certain mountain scopes with unique “incomparable values”.

IV. National Mission for a Green India

This mission aims at enhancing ecosystem services such as carbon sinks. It builds on the Prime Minister’s Green India campaign for forestation of 6 million hectares and the national target of increasing land area under forest cover from 23% to 33%. It is to be implemented on degraded forest land through Joint Forest Management Committees set up under State Departments of Forests. These Committees will promote direct action by communities. The Green India program suggests:

- Training on silvicultural practices for fast-growing and climate hardy tree species.
- Reducing fragmentation of forests by provision of corridors for species migration, both fauna and flora.
- Enhancing public and private investments for raising plantations for enhancing the cover and the density of forests.
- Revitalizing and up scaling community-based initiatives such as Joint Forest Management and Van Panchayat Committees for forest management.
- Formulation of forest fire management strategies.
- In-situ and ex-situ conservation of genetic resources, especially of threatened flora and fauna.
- Creation of biodiversity registers (at national, district and local levels) for documenting genetic diversity and the associated traditional knowledge.
- Effective implementation of the Protected Area system under the wildlife conservation Act and National Biodiversity Conservation Act 2001.

VII. National Mission for Sustainable Agriculture

The aim is to make Indian agriculture more resilient to climate change by identifying new varieties of crops, especially thermal resistant ones and alternative cropping patterns. This is to be supported by integration of traditional knowledge and practical systems, information technology and biotechnology, as well as new credit and insurance mechanisms.

In particular the Mission focuses on rain-fed agricultural zones and suggests:

- Development of drought and pest resistant crop varieties.
- Improving methods to conserve soil and water.
- Stakeholder consultations, training workshops and demonstration exercises for farming communities, for agro-climatic information sharing and dissemination.
- Financial support to enable farmers to invest in and adopt relevant technologies to overcome climate related stresses. In addition, the Mission makes suggestions for safeguarding farmers against increased risk due to climate change. These suggestions include strengthening agricultural and whether insurance; creation of web-enabled, regional language based services for facilitation of whether-based insurance; development of GIS and remote sensing methodologies; mapping vulnerable regions and disease hotspots; and developing and implementing region-specific, vulnerability based contingency plans. Finally, it suggests greater access to information and use of biotechnology.

Conclusion:

The mission will strive to work with the global community in research and technology development and collaboration through a variety of mechanisms and, in addition, will also have its own research agenda supported by network of dedicated climate change related institutions and universities and a Climate Research Fund. The Mission will also encourage private sector initiatives for developing innovative technologies for adaptation and mitigation.

The Mission includes:

- Research in key substantive domains of climate science to improve understanding of key phenomena and processes.
- Global and regional climate modeling to improve the quality and accuracy of climate change predictions for India.
- Strengthening of observational networks and data gathering and assimilation to increase access and availability to relevant data.
- Creation of essential research infrastructure, such as high performance computing.

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