THE MISSION POSSIBLE?

CM402 ASSIGNMENT 2: A Review of the NAPCC

CHIRAG P, 18B090003, Department of mathematics

EMAIL:
chirag.p.raju@gmail.com
18B090003@iitb.ac.in
chirag@math.iitb.ac.in

CONTACT:

+91 8880888400

+91 9019245503

A brief review: The NAPCC consists of 8 parallel strategies:

A. National Solar Mission
B. National Mission for Enhanced Energy Efficiency
C. National Mission on Sustainable Habitat
D. National Water Mission
E. National Mission for Sustaining Himalayan Ecosystem
F. Green India Mission
G. National Mission for Sustainable Agriculture
H. National Mission on Strategic Knowledge for Climate Change

A few definitions to begin with:

Climate change mitigation consists of actions to limit **global warming** and its related effects**.** This involves reductions in human emissions of **greenhouse gases** as well as activities that reduce their concentrations in the atmosphere.

Climate change adaptation is the process of adjusting to current or expected climate change and its effects.

Climate change vulnerability is an assessment of vulnerability to climate change used in discussion of society's response to climate change, for processes like climate change adaptation, evaluations of climate risk or in determining climate justice concerns

Hence, I will evaluate the NAPCC based on whether it sufficiently caters to the above three ideas.

India, the seventh largest country in the world in terms of geographical area, is home to more than 1.21 billion people. Its unique geography leads it to experience a wide variety of climatic conditions and also exposes the country to a range of extreme climatic events, such as cyclones, floods, and droughts, which have put lives at risk, damaged infrastructure, and slowed economic and social progress. The vulnerability of India to climate change is further driven by underlying socio-economic concerns of poverty and inequality, the resource needs of an ever-increasing population, and the development priorities of an emerging economy. Recognizing this risk, India has initiated a variety of climate change adaptation plans and programs.

India's overarching adaptation policy framework is the NAPCC of 2008, prepared under the guidance of the Prime Minister's Council on Climate Change. The NAPCC recognizes that effective and appropriate climate change adaptation and mitigation planning would yield "co-benefits" that could further strengthen the country's overall development objectives. Eight National Missions form the core of the NAPCC. The government has very recently decided to add four new missions to the existing ones: wind energy, human health, coastal resources, and waste-to-energy (Sinha, 2015)

1. **Yes, the report's assessment of mitigation, vulnerability and adaptation needs are adequate**.

- The vulnerable population implies the demography (extremes of age, sex, population density, pregnant women and certain occupations), Health Status(like proportion of malnourishment, suffering with infectious and/ or chronic diseases, mental or physical disability), socio-economic status (poor/ marginalised- more vulnerable), type of occupation or socio-cultural practices.
- The vulnerable regions implies unplanned urban housing, proportion of slums, drought risk zones, water-stressed zones, food-insecure zones and remote rural areas.
- Vulnerability Assessment for baseline rates of Climate Sensitive Illnesses in terms of the following points has been made:

a) Geography (Plain/ Mountain/ Desert/ Coastal), identify worst affected areas (districts)
b) Risk mapping with extreme events (heat/ cold/ drought/ flood/ cyclone/other),
c) Affected Population (Total, density, Vulnerable, Occupation)
d) Contributing/ exaggerating factors for these Climate sensitive illnesses
e) Healthcare Infrastructure/ facilities like PHC, CHC, District hospital, Tertiary care hospitals- Government as well as Private.
f) Identify areas for capacity building –human resource, technical and healthcare service delivery

The mitigation focused strategies are:

- **Jawaharlal Nehru National Solar Mission**- Aims to establish India as a global leader in solar energy
- **National Mission for Enhanced Energy Efficiency**- aims to achieve growth with ecological sustainability by devising cost- effective and energy-efficient strategies
- **National Mission on Sustainable Habitat**- aims to promote sustainability of habitats through improvements in energy efficiency

The adaptation focused strategies are:

- **National Water Mission** with aims of conserve water, minimize wastage, and ensure equitable distribution

- **National Mission for Sustainable Agriculture** with aims To transform agriculture into an ecologically sustainable, climate resilient production system
- **National Mission for Sustaining the Himalayan Ecosystem** with aims To evolve management measures for sustaining and safeguarding the Himalayan glaciers and mountain ecosystem

Combined adaptation and mitigation strategies are :

- **National Mission for a Green India** -To use a combination of adaptation and mitigation measures to enhance carbon sinks in sustainably managed forests and other ecosystems
- **National Mission on Strategic Knowledge for Climate Change** To identify the challenge and the responses to climate change through research and technology development

2. **Yes, the report addresses most of the climate related hazards for India.**

- Some of them are - Changes in temperature and precipitation and occurrence of heat waves, floods, droughts ,fires ,also ozone depletion, , air pollution and ultra-violet radiation exposure.
- Indirect impacts of climate on health are due to ecological disruptions, rising sea level, changing temperatures and precipitation patterns which leads to crop failures, shifting patterns of disease' vectors, water-borne diseases and vector-borne diseases.

3. **Assessment of adaptation strategies**:

A. **National water mission**(NWM):

The five identified goals of the mission are:

- Creating a comprehensive water data base in the public domain and assessing the impact of climate change on water resource
- Promoting citizen and state action for water conservation, augmentation and preservation
- Focusing attention to overexploited areas
- Increasing water-use efficiency by 20 per cent
- Promoting basin-level integrated water resources management

B. **National mission for sustaining the Himalayan ecosystem**(NMSHE): aimed at evolving conservation measures for sustaining and safeguarding the Himalayan glaciers and mountains through establishment of a monitoring network, promotion of a community-based management, human resource development and strengthening regional cooperation. The mission recognises that ecosystem goods and services from the Himalayas support a vast number of people and provides food and water security. It

acknowledges the importance of participatory approaches and community- based management.

C. **National Mission for Sustainable Agriculture**(NMSA):

The key components of the mission are as follows:

- **Rain-fed Area Development** (RAD): This element intends to adopt an area-based approach for development and conservation of natural resources along with farming systems. The purpose is to introduce appropriate farming systems to integrate components of agriculture with income generating activities and value addition.

- **On-Farm Water Management** (OFWM) will focus primarily on enhancing water use efficiency by promoting efficient on-farm water management technologies and equipment, primarily like drip and sprinkler technologies, efficient water application and distribution system, secondary storage and drainage development.

- **Soil Health Manageme**nt (SHM): The sole priority of this management system is on residue management, organic farming practices by ways of creating and linking soil fertility maps with macro-micro nutrient management, appropriate land use based on land capability, and judicious application of fertilizers and minimizing the soil erosion/ degradation.

- **Climate Change and Sustainable Agriculture Monitoring, Modelling and Networking** (CCSAMMN): CCSAMMN will provide creation and bidirectional (land/farmers to research/scientific establishments and vice versa) dissemination of climate change related information and knowledge

So what's missing in the report?

- The NWM underestimates the role of forests, which have a symbiotic relationship with water, and the mission is limited to mountain watersheds and wetlands. Issues such as snow melt and change in precipitation are barely noticed but not in the context of the dynamics of climate change.

- The NMSHE could have paid more attention to dam structures, which are an increasing threat to the vulnerable and poor. Other issues receiving scant attention are the black carbon issues, of special importance in the Himalayas, and the problem of degraded Himalayan forests.

- The NMSA focuses on sustainable agriculture but fails to recognize the importance of adaptation. No dedicated funds are allotted to adaptation and coping mechanisms with respect to agriculture. There is a requirement for a more decentralized planning with respect to agriculture. Currently, states lack the guidelines and capabilities to come up

with timelines, financial targets and implementation strategies for components under the mission

In conclusion...

India's federal structure of governance very often poses institutional and financial challenges to the planning and implementation of regular development programs. To deal with such challenges in climate change adaptation and mitigation planning, the national action plan provided a common framework for the subnational governments to prepare their respective SAPCCs. One of the key challenges around adaptation planning and implementation in India has been lack of adequate financial resources, meaning that a majority of adaptation needs remain unmet. Efforts to mainstream climate change adaptation and disaster risk reduction into sectoral development plans and infrastructure development have addressed some of these gaps. International adaptation finance also has been able to fill some of these resource gaps. India has been one of the top recipients of climate change–related aid from bilateral and multilateral sources, but much of this funding has gone toward mitigation projects.

Through many such initiatives, India has been making significant progress in climate change adaptation planning and implementation. This has led to a shift in perception and practice of adaptation planning from being a stand-alone initiative toward being an integrated process of climate-resilient development planning.

Reference: National Action Plan for Climate Change - Wikipedia