

Initiatives Of Nabard For Sustainable Development On Climate Change

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Abstract

Globally, climate change is becoming a real and palpable threat to people's lives. It poses a serious threat to rural livelihoods, food security, and agriculture. Although the effects of climate change are seen worldwide, nations like India are particularly vulnerable because of their large agricultural population, which depends on the monsoon season. India has the difficulty of maintaining its fast economic expansion in the face of the growing global threat posed by climate change. India has already demonstrated its willingness to contribute to the global effort to combat climate change, and the Indian government has made solving these issues a key priority. The policy problem of climate change is intricate and has significant financial ramifications. Costs are a necessary component of all strategies and solutions to mitigate the negative effects of climate change. In order to plan and carry out adaptation and mitigation programs, funding is essential in developing nations. NABARD is currently implementing a number of measures to address the problems brought about by climate change, especially with regard to the rural economy and agricultural sectors. To support adaptation and mitigation efforts in India, NABARD seeks to direct financial resources from the public, private, and international sectors.

Keywords:- climate change, NABARD, mitigation, adaptation.

Introduction

The empirical long-term representation of the short-term weather is called climate. "Expected weather" is one way to characterize climate. We refer to variations in the predicted weather as climatic changes. The variations in the mean weather at two different times can be used to characterize them. There are several ways that the climate can change, depending on the time and place scales. Scientists have recently developed an interest in global warming because of human activity amplifying the natural greenhouse effect and altering the climate system. The system of climate is intricate and dynamic. It is made up of the water bodies and oceans, the land surface, living things, snow, and ice. Of these, the atmosphere, the first component, best describes the climate (according to the definition provided above). A multitude of external influences, including both human-induced changes in the composition of the atmosphere and natural occurrences like solar radiation and volcanic eruptions, have an affect on the internal dynamic forces of the climate systems. The sun provides all of the energy and power for the climatic system. Three basic factors can affect the Earth's radiation balance: 1) variations in the amount of solar radiation entering the atmosphere; 2) variations in the amount of solar radiation reflected (known as "albedo"); and 3) variations in the long wave radiation that Earth emits back into space. Through several feedback mechanisms, the climate in turn reacts to these changes both directly and indirectly.

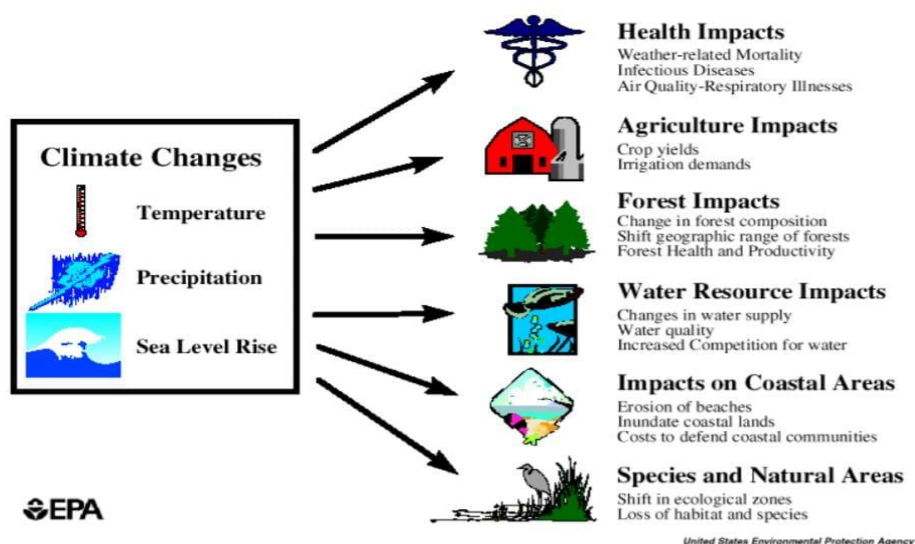
There are two approaches to addressing climate change. We have two options: we can mitigate climate change by trying to limit future warming, or we can adapt to climate change by finding methods to survive in a warmer environment.

- **Mitigation** - comprises developing plans to reduce a person's or an area's vulnerability to the impacts of climate change. To protect themselves from growing flooding and sea level rise, communities can build seawalls or relocate buildings to higher elevations.
- **Adaptation** - entails creating strategies to lessen the susceptibility of individuals and areas to the effects of the climate. Communities might construct seawalls or move structures to higher elevation, for example, to guard against rising sea levels and increasing flooding.

Impacts of climate change: How natural and human systems are affected by climate change. Depending on the stage of adaptation, one can distinguish between potential consequences and residual affects:

- **Potential effects** - all potential effects, without taking adaptation into account, given a predicted shift in the climate.
- **Residual effects** - the effects of climate change that might materialize after adaption.

Potential Climate Change Impacts



Source: NABARD annual report

Literature Review-

[Ravi S. Prasad](#) - Implementing climate change adaptation: lessons from India's national adaptation fund on climate change (NAFCC) - In order to get insight into the current status of adaptation projects, programs, and schemes at the subnational levels as well as obstacles to mainstreaming climate change adaptation, a thorough assessment of the literature was conducted.

S. Lokesh* and P. Indira Devi - Instability and Growth Rate Analysis of Investments done by NABARD in the Watershed Development Sector of India - The current study attempted to throw light on the funding that NABARD has provided throughout the years for the development of watersheds around the nation. The growth rate and stability of the movement funds were analyzed in the study using trends and instability.

Dr. S.N. VYAS - ROLE OF NABARD IN AGRICULTURAL CREDIT

E.V. Murray and K.C. Badatya - Adaptability of Indian Agriculture to Climate Change: NABARD's Initiatives for Sustainable Agricultural Development - In order to fulfill the objectives outlined in the NAPCC, NABARD will be able to play a crucial role in the NRM sector in the future through rural financial institutions.

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E.V. Murray and K.C. Badatya - Adaptability of Indian Agriculture to Climate Change: NABARD's Initiatives for Sustainable Agricultural Development Amitava Panja, Siddesh Sunil Zade, Shravani Sahani, Sanchita Garai and Sanjit Maiti Impact of Climate Change on Indian

Samkutty Samueala | Rupesh Roshan Singh - Climate change: role of banks and financial institutions in greening the banking system

P.K. Viswanathan b , Maneesha V. Ramesh - The dynamics of climate change adaptation in India: A review of climate smart agricultural practices among smallholder farmers in Aravalli district, Gujarat, India - The current understanding of CSA research in Gujarat state's Aravalli district reveals complex mechanisms of CC adaptation among Indian smallholder agrarian groups. The analysis indicates that smallholder farmers, who primarily rely on agriculture for their livelihood, have encountered and continue to face a number of issues brought on by climate change on a national level.

Balasubramanian* and V Dhulasi Birundha - Climate Change and Its Impact on India © 2012 IUP. All Rights Reserved. In the context of India, this research examines the effects of climate change and its different facets.

Uvesh Husain and Sarfaraz Javed - Impact of Climate Change on Agriculture and Indian Economy: A Quantitative Research Perspective from 1980 to 2016 - With a focus on climate change variables, GDP, and population of India from 1980 to 2016, this study used a quantitative research approach to investigate the impact of climate change on the Indian economy from 1980 to 2016.

India: The Impact of Climate Change to 2030 A Commissioned Research Report Prepared By Joint Global Change Research Institute and Battelle Memorial Institute, Pacific Northwest Division. India is among the nations most susceptible to the effects of predicted climate change and one of the biggest emitters of greenhouse gases worldwide. The nation is already dealing with a changing climate and its effects, such as heat waves, droughts, severe storms, flooding, and other events that have a detrimental influence on people's health and way of life.

Research Methodology

1. **Intend Of The Study** - Two main goals are attempted to be addressed in this work. In order to mitigate the effects of climate change, NABARD has developed two flagship adaptation programs. The first program summarizes the extent and impact of climate change and the variability in agricultural production caused by erratic rainfall and droughts. The second program evaluates NABARD's adaptation strategies.
2. **Research Design** - In this study, the descriptive research design has been used. This type of research effort has been pragmatic in understanding the range of issues related to any phenomenon. Numerous points of view from earlier researchers, newspaper articles, reports, blogs, and other online resources have all contributed to the enrichment of the conversation.

Initiatives Taken By Nabard For Sustainable Development- To address the issues raised by climate change, NABARD has already made a number of steps, remarkably in the fields of agriculture and rural life. NABARD seeks to facilitate the allocation of public, private, and international funds for adaptation and mitigation initiatives in India.

- The Green Climate Fund (2015), NAFCC (2012), and Adaptation Fund (NIE) all have NABARD accreditation as National Implementing Entities (NIEs).
- Through the Adaptation Fund (AF), National Adaptation Fund for Climate Change (NAFCC), and Green Climate Fund (GCF), NABARD has supported the sanction of 40 projects totaling Rs. 1852.61 crore.
- A total of Rs. 97.30 crore has been released in 2021–2022.

1. **Climate Change Fund** - Consistent with NABARD's pledge to tackle the effects of climate change, the “Climate Change Fund” was established using the organization's 2016–17 profits to support initiatives aimed at mitigating the effects of climate change, particularly in the direction of sustainable development. Every year, NABARD adds to the fund's corpus from its profits. The goal is to encourage and fund initiatives that address the effects of climate change, provide adaptation and mitigation strategies, raise public awareness, share information, and aid in sustainable development.
2. **Adaptation Fund under United Nations Framework Convention on Climate Change (UNFCCC)** - In July 2012, NABARD received accreditation as the only National Implementing Entity (NIE) for India under the Adaptation Fund. The national legal entities (NIEs) are those that the Board recognizes as satisfying the fiduciary requirements set forth by the Board and that have been nominated by Parties (to the Kyoto Protocol). The NIEs are in charge of all monetary reporting, and oversight responsibilities in addition to general project and program management for the funds provided by the Adaptation Fund.
3. **Green Climate Fund** - Thanks to our current accreditation with the Adaptation Fund, NABARD was accredited as a National Implementing Entity in the 10th Board meeting of the GCF, which was held on July 9, 2015, on a fast track. NABARD is qualified to submit large-scale projects with budgets above \$250 million.
4. **National Adaptation Fund for Climate Change** - The National Adaptation Fund for Climate Change (NAFCC) was founded in August 2015 to help States and Union Territories of India that are especially susceptible to the negative effects of climate change with the costs of adaptation. In the regions designated by the SAPCC (State Action Plan on Climate Change) and the pertinent Missions under the NAPCC (National Action Plan on Climate Change), the programs under NAFCC focus the essentials that develop climate resilience.
5. **Other Climate Change Initiatives of NABARD** - To cover the costs of adaptation to climate change for India's states and union territories that are most at risk from its negative consequences, the National Adaptation Fund for Climate Change (NAFCC) was founded in August 2015. The NAFCC initiatives give priority to needs that strengthen climate resilience in the regions designated by the State Action Plan on Climate Change (SAPCC) and the pertinent NAPCC Missions (National Action Plan on Climate Change).

National Missions on climate change:

- Jawaharlal Nehru National Solar Mission
- National Mission for Enhanced Energy Efficiency

- National Mission on Sustainable Habitat
- National Water Mission
- National Mission for Sustainable Agriculture
- National Mission for Sustaining the Himalayan Ecosystem
- National Mission for a Green India
- National Mission on Strategic Knowledge for Climate Change

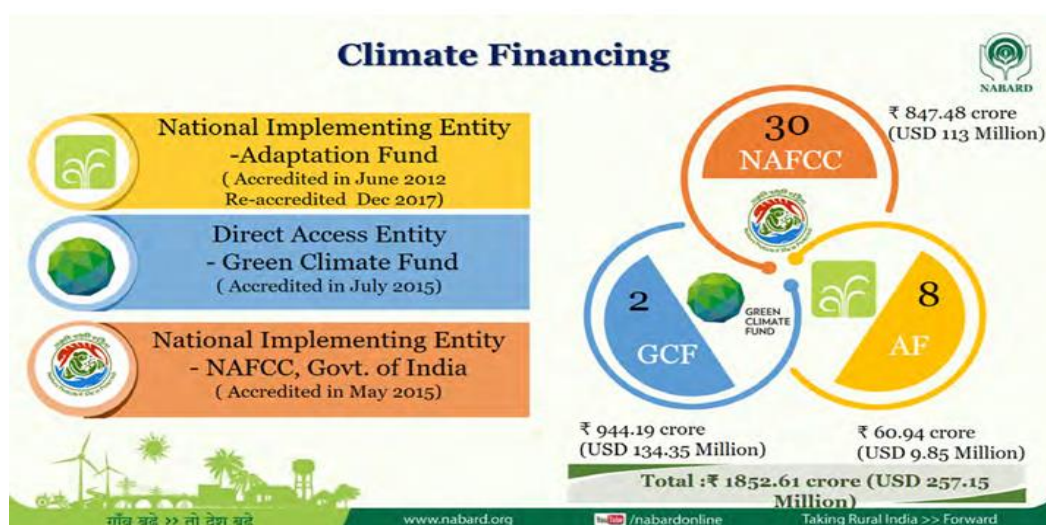
State Action Plan for Climate Change (SAPCC):

- Coherence between climate change policies at the federal and state levels is necessary, as climate change is becoming a more important factor in Central Government policy and actions at all levels.
- It is also evident that addressing climate change would need state governments to design and carry out initiatives in contribution of NAPCC objectives.
- State Action Plans on Climate Change (SAPCC) are being prepared because of the realization that each state has exclusive problems and has to address climate change on a local level.
- After being produced by State Governments, the SAPCCs are sent to the Indian government's MoEF&CC for final approval and support.
- The NAFCC has been granted INR 350 crore for a period of three years (2015–16, 2016–17, 2017–18). Budgetary support would be used to enhance the funds.

Function of NABARD as NIE/DAE

- Development of Proposals
- Requesting Project Concept Notes (PCNs) for review and enhancement.
- Evaluation and enhancement of full financing bids and detailed project reports (DPRs).
- Monitoring, assessment, and management of projects and programs.
- Grant distribution, ensuring that finances are used for the intended purpose by judges.
- Increasing the ability of different stakeholders to create and carry out projects.
- Working together with foreign organizations.

NABARD and Climate Change



Source: NABARD annual report

A plan for stepping up climate action in rural regions:

- Gathering excellent ideas under several financing mechanisms to facilitate funding support under GCF, NAFCC, or other designated funds
- Climate Empowerment and Mainstreaming of Climate Actions in Planning. Develop a plan outlining the adaptation and mitigation measures needed to address climate-related vulnerabilities across different industries and sensitive areas.
- Planning a National Conference on Climate Change Adaptation Techniques
- Recording of encounters and achievements under sponsored projects.
- Ongoing Building of Stakeholder Capabilities for Climate Action

Conclusion- Through several national and worldwide funding agreements as well as Green Financing, NABARD has undertaken a number of activities to raise awareness and create expertise on issues pertaining to climate finance, such as project creation, execution, monitoring, and evaluation. On July 20, 2018, the Climate Change Centre (CCC) at BIRD, Lucknow, was officially opened. It is anticipated that the center will provide expert assistance to interested parties in developing climate-related initiatives, enhancing their ability to do so, and initiating joint studies and action research missions pertaining to climate change.

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