

Financing State Climate Actions

Initiatives in Gujarat and Madhya Pradesh



An initiative supported by



An initiative supported by



Shakti Sustainable Energy Foundation works to strengthen the energy security of India by aiding the design and implementation of policies that support renewable energy, energy efficiency and the adoption of sustainable transport solutions.

Disclaimer: The views/analysis expressed in this report/document do not necessarily reflect the views of Shakti Sustainable Energy Foundation. The Foundation also does not guarantee the accuracy of any data included in this publication nor does it accept any responsibility for the consequences of its use.

For private circulation only



Financing State Climate Actions

Initiatives in Gujarat and Madhya Pradesh

Authors:

Vivek Venkataramani, V.Shivaranjani and **Radhika Sundaresan** are researchers in the Environment and Climate Change team at IFMR LEAD.

Cover Image: <https://www.flickr.com/photos/ciat/7165529103/>

The report can be downloaded at

<http://ifmrlead.org/financing-state-climate-actions-initiatives-in-gujarat-and-madhya-pradesh/>

2nd Floor, Buhari Towers, No.4, Moores Road, Chennai – 600 006

Phone: +91 (44) 4010 1308, 4010 1331 | **Website:** <http://ifmrlead.org/>

Acknowledgements

The authors are indebted to Mr. Shwetal Shah (Technical Advisor), at the CCD, Gujarat, Mr. Lokendra Thakkar (Sr. Scientific Officer) and Mr. Saransh Bajpai (Subject Expert) at the EPCO, MP who spoke to us at length sharing their knowledge and experience. The support and co-operation extended by their departments during the course of the project is gratefully acknowledged. We would also like to thank the officials from different States for providing constructive feedback on their experiences on working with the NABARD.

We are deeply grateful to Mr. B.G.Mukhopadhyay (Retd. CGM, NABARD, Mumbai) for his invaluable inputs and assistance during the formative stage of the project and the State consultation workshops. We would also like to acknowledge the detailed insights provided by Dr. Sunil Kumar, GM, and Mr. Sushil Kumar, Manager at the FSPD, NABARD for their valuable feedback during the State consultation workshops.

We would also like to thank Mr. Ashish Kulkarni (India Business Lead), Ms. Federica Chiappe (Principal Consultant, Economist), Ms. Emelia Holdaway (Manager, International Climate Change Policy), Ricardo E&E for partnering with us and providing detailed inputs and suggestions during every phase of the project.

We would also like to express our gratitude to Mr. Kunal Sharma, Mr. Aman Gupta and the Shakti Sustainable Energy Foundation (SSEF) for continuously extending their support over the years to our work and helping us take this project forward since its conceptualisation.

Lastly, we would like to thank Ms. Kadambari Anantram for her inputs in the initial stages of the project.

Responsibility for the content of this report rests with the authors alone and any errors remain the responsibility of the authors.

Contents

Acknowledgements	iii
Contents	v
List of Figures	v
Acronyms	vi
Executive Summary	viii
Chapter 1: Policy Landscape	1
Chapter 2: Stepping beyond the State budget for climate finance: Gujarat	3
Chapter 3: Stepping beyond the State budget for climate finance: Madhya Pradesh	6
Chapter 4: A Stepwise Approach to accessing the NAFCC	10
Chapter 5: Accessing the NAFCC: Engaging with the NABARD	14
Bibliography	17

List of Figures

Figure 4.1: NAFCC: Roles & responsibilities of key institutions involved	10
Figure 4.2: NAFCC: Key components of a Concept Note/DPR	11
Figure 4.3: Cycle of Concept Note/DPR preparation	12

Acronyms

AE	Accredited Entity
AF	Adaptation Fund
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
BMC	Biodiversity Management Committee
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CCC	Climate Change Cell
CCD	Climate Change Department
CDKN	Climate and Development Knowledge Network
CoP	Conference of the Parties
DPR	Detailed Project Report
EAP	Externally Aided Project
EE	Executing Entity
EPCO	Environmental Planning and Coordination Organisation
FGD	Focused Group Discussions
GCF	Green Climate Fund
GEC	Gujarat Ecology Commission
GEDA	Gujarat Energy Development Agency
GEER	Gujarat Ecological Education and Research Foundation
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIM	National Mission for a Green India
GoI	Government of India
GSDMA	Gujarat State Disaster Management Authority
IFD	Integrated Finance Division
INCCA	Indian Network for Climate Change Assessment
INDC	Intended Nationally Determined Contributions
IWDP	Integrated Watershed Development Programme
MP	Madhya Pradesh
M&E	Monitoring and Evaluation
MNRE	Ministry of New & Renewable Energy
MNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme

MoEF&CC	Ministry of Environment, Forest & Climate Change
MoWR	Ministry of Water Resources, River Development & Ganga Rejuvenation
MPSBB	Madhya Pradesh State Biodiversity Board
NABARD	National Bank for Agriculture and Rural Development
NADP	National Agriculture Development Programme
NAFCC	National Adaptation Fund on Climate Change
NAPCC	National Action Plan on Climate Change
NIE	National Implementing Entity
NCEEF	National Clean Energy & Environment Fund
NGO	Non-governmental organisation
NMSA	National Mission for Sustainable Agriculture
NMSHE	National Mission for Sustaining the Himalayan Ecosystem
NMSKCC	National Mission on Strategic Knowledge for Climate Change
NSCCC	National Steering Committee on Climate Change
PBR	People's Biodiversity Register
RO	Regional Office
SAPCC	State Action Plan on Climate Change
SIDBI	Small Industries Development Bank of India
SKMCCC	State Knowledge Management Centre on Climate Change
SLSC	State Level Steering Committee
SRI	System of Rice Intensification
TSC	Technical Scrutiny Committee
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary

The national and sub-national action plans on climate change formed the stepping stones for targeting climate mitigation and adaptation actions in the country. While most of these plans provide an initial roadmap to climate actions, establishing an institutional framework to implement them and report progress in line/consistently with the Intended Nationally Determined Contributions (INDCs) and other international communications has been a challenge for the Indian government.

Another bottleneck in implementing such actions has been that of funding, which in a large way can be sourced through the public expenditure of the government. The identification of climate co-benefits of development schemes forms the starting point of estimating additional funding needs of the government for exclusive climate actions. This would also pave way for considering incremental changes in the existing design of ongoing developmental programmes to focus more on climate mitigation or adaptation. Therefore, while the default climate relevance of public expenditure is under scrutiny, additional finances from international sources are also being sought by the government. These include bilateral agreements or multilateral mechanisms through the United Nations Framework Convention on Climate Change (UNFCCC) or otherwise. After several years of deliberations, the UNFCCC had created dedicated climate funds like the Adaptation Fund (AF), Global Environment Facility (GEF) and recently the Green Climate Fund (GCF) which finance specific adaptation and mitigation actions in developing countries¹. Similarly, the Government of India (GoI) also floated dedicated climate funds like the National Clean Energy and Environment Fund (NCEEF) and the National Adaptation Fund on Climate Change (NAFCC) for financing climate actions. While the Ministry of Environment, Forest and Climate Change (MoEF&CC) anchors these funds, it requires that the proposals and funding are routed through the National Bank for Agriculture and Rural Development (NABARD)² to the States. Most States are aware of these funds and are working towards availing the same, but often experience difficulties in identifying ideas for potential concept notes and dovetailing them to meet the investment criteria and modalities of such funds.

In this context, the project sought to sensitise officials from line departments of Gujarat and Madhya Pradesh on the landscape of the domestic and international climate finance and the funds that are currently operational and providing finance. Secondly, it also aimed to work with both States and develop concept notes which can be submitted³ to either the NAFCC or the GCF.

Chapter 2 summarises the different channels of initiatives that Gujarat has adopted to addressing climate change either directly or indirectly. Firstly, ongoing development programmes like the Residential Rooftop Solar Plants, Solar Parks, Canal-based Solar Power and the Gandhi Nagar Solar City Project, etc. have direct climate mitigation benefits. Secondly, the State has invested efforts in coming up with a Solar Policy in 2015, Wind Power Policy and a Waste-to-Energy

¹Each fund has guidelines of funding specific types of developing countries as per the definition of the UNFCCC.

²NABARD is the National Implementing Entity for the NAFCC.

³This largely depended on the potential interventions available at the State level which could developed into concept notes.

Policy in 2016. These policies provide a framework to guide initiatives within the sector to provide development as well as mitigation/adaptation benefits. Thirdly, line departments from within the State like the Gujarat Ecological Education and Research Foundation (GEER) have recently been approved for funding under the NAFCC for a project on Strengthening Resilience through Water & Livelihood Security and Ecosystem Restoration in the Kachchh region. Such projects could potentially form the basis to scale up innovative climate mitigation and adaptation actions. The Study team, together with the Gujarat Ecology Commission (GEC), has also worked on developing a concept note on their Bio-village model which has been summarily described in this section. Lastly, the State being a front-runner in setting up an exclusive Climate Change Department (CCD) has also launched an initiative to finance climate change actions through a new Climate Change Budget Scheme (Climate Change Department 2017) which has earmarked funds for this purpose.

Similarly, Chapter 3 enumerates Madhya Pradesh's (MP) efforts beyond the budgetary schemes to combat climate change. As a first, the Climate Change Cell (CCC) was set up within the Environmental Planning and Coordination Organisation (EPCO) in 2009 which steers all climate change actions within the State. This was created under the National Mission on Strategic Knowledge for Climate Change (NMSKCC). Like Gujarat, MP too has achieved progress in financing their climate actions. Through the National Mission for a Green India (GIM) an amount of INR 8.23 Crores was allocated for preparatory activities. In the context of availing funds from the NAFCC, the State has already received funding for its project 'Enhancing Adaptive Capacity to Climate Change through Developing Climate-Smart Villages in Select Vulnerable Districts of Madhya Pradesh'. The State has also targeted international climate funds like the AF and the GCF and received sanctions worth USD 4.35 million from the former. This amount funds two projects: the first one seeks to address climate resilience in small inland fishing communities and the second additionally targeting ecological security in the Kanha-Pench Corridor. MP has also commissioned programmes under the National Mission for a Sustainable Agriculture (NMSA) to build farmers' resilience and preparedness to the impacts of climate change on farm productivity. The State has also tapped the NCEEF for promoting solar irrigation pumps in villages through a NABARD scheme. The Study team, through its interactions with departments, has documented two initiatives: 1) with the Madhya Pradesh State Biodiversity Board (MPSBB) on developing bio-villages and 2) distributing certified seed varieties to farmers under the Beej Nigam. In the current context of climate mitigation and adaptation, these could be developed into detailed concept notes with relevant additions to suit the requirements of specific climate funds.

Chapter 4 aims to provide a stepwise guideline to States on the aspects to be covered and analysed while developing a concept note and Detailed Project Report (DPR) for the NAFCC. A similar set of procedures in the context of the GCF have also been referred to in this section. The different thematic areas supported by the fund, the modalities involved in dovetailing the concept note to the funds, the role of the NABARD during the stage of drafting the concept note and the DPR, the funding caps and implementation guidelines are outlined in this section.

The last chapter encapsulates the experience that States have had with the NABARD w.r.t preparing concept notes in the initial stage and thereafter developing and submitting DPRs

to the MoEF&CC. Feedback around technical, financial and administrative support received by States during this process, the benefits and gaps in this exercise has been succinctly documented in this section. While most States have provided very optimistic responses to the bank's positive outlook towards this exercise, nuanced findings around areas where further improvements could be realized have been noted. This is expected to provide constructive recommendations to both States and the NABARD in the larger context of proposal preparation and securing funding for State level climate actions.

Chapter 1: Policy Landscape

While the Central government has provided an initial roadmap for climate policies through the National Action Plan on Climate Change (NAPCC) and subsequently the State Action Plans on Climate Change (SAPCCs), it is for the States now to identify means of translating these national and sub-national policies into actionable schemes/projects at the ground level. Though agencies at the Centre, State, districts and even blocks are involved in implementing such schemes, their design has largely followed a top-down approach. Funding for such schemes has been flowing through from the Centre to the State or in some cases the latter itself through the regular budgets. Additionally, several other institutions, like multilateral & bilateral donors and banks, through North-South and South-South cooperation are providing financial assistance for designing and implementing climate change programmes as well as building State capacities.

Among dedicated climate funds, the Adaptation Fund (AF) and the Global Environment Facility (GEF) under the United Nations Framework Convention on Climate Change (UNFCCC) were some of the funds created to finance climate change programmes in developing countries. Following subsequent annual Conference of the Parties (CoP) dialogues, the Green Climate Fund (GCF) was created in 2010 and became operational in 2015. The GCF has so far approved 43 projects by allocating USD 2.2 billion (Green Climate Fund 2017). Odisha is one of the latest recipients of the GCF for its project on Ground Water Recharge and Solar Micro Irrigation to Ensure Food Security and Enhance Resilience in Vulnerable Tribal Areas. This was for a total investment of USD 34 million (Express News Service 2017). Similarly, the Ministry of Environment, Forest & Climate Change (MoEF&CC) had set up funds dedicated specially for the purpose of financing climate mitigation and adaptation actions. Of these, the National Adaptation Fund on Climate Change (NAFCC) has played a crucial role in incentivising States to develop pilot and demonstration projects and facilitating their scale up through its funding. The National Bank for Agriculture and Rural Development (NABARD), being the Accredited Entity (AE) for the AF, GCF and NAFCC, anchors the process of developing and submitting concept notes around such projects to them. The bank not only provides technical support to the Executing Entity (EE)⁴ in terms of the realignment of development to include adaptation interventions, but also provides financial and administrative expertise to the latter. As a recent development, the Small Industries Development Bank of India (SIDBI) has been accredited as a National Implementing Entity (NIE) for the GCF⁵.

While not discounting all other modes⁶ of financing climate actions in the country, this project aimed to facilitate States document and develop robust concept notes that can be developed into full-fledged proposals for climate funds like the NAFCC, GCF, etc. As a precursor to this exercise, the project also attempted to sensitise all relevant stakeholders at the State level including line departments, ground-level Non-governmental organisations (NGOs), banks and private sector on the landscape of climate finance and the modalities involved in availing such funding.

⁴ Typically, this is the line department at the State level which develops the concept note/Detailed Project Report (DPR) for the dedicated funds.

⁵ http://www.greenclimate.fund/documents/20182/38417/GCF_s_Board_Strengthens_Fund_s_Operations.pdf/2decbe8e-3f35-44bf-a2f5-ddd1cdf5f7ef.

⁶ Climate actions have been largely funded by budgetary transfers, Externally Aided Projects (EAP), bilateral agencies, fiscal instruments, etc.

Objectives of the Project

This project aimed at developing inputs for the State line departments as well as their engagement with the NABARD with the following objectives:

1. To sensitise State (Gujarat and Madhya Pradesh) level line department officials, banks, ground-level implementing agencies, etc. on the landscape of climate finance (domestic and international)
2. To document concept notes based on pilot/demonstration projects that could be developed into elaborate concept notes/DPRs for dedicated climate funds
3. To review and recommend areas for enhancing the NABARD's engagement with the States in accessing dedicated climate funds, especially the NAFCC.

Project Approach

The study adopted a consultative approach to achieve its objectives, as highlighted below:

1. *Establishing technical cooperation:* The Study team made individual presentations to the concerned nodal departments and the NABARD to secure their buy-ins and inputs on the project. Formal technical cooperation agreements were then signed with the nodal departments of both States since it was well understood that this project involved detailed interactions with line department officials and seeking detailed inputs from them.
2. *Initial exploratory consultation:* The Study team undertook the first round of meetings with the nodal department to understand pertinent vulnerabilities within the State, sectoral priorities and developments and then reached out to all the relevant line departments for more detailed discussions on their innovative interventions. Based on the response from specific line departments, the team followed up with them for exploring the possibility of building concept notes around these interventions.
3. *Stakeholder consultation workshop:* A day-long workshop was conducted in each State wherein the team sensitised the participants on the different sources of climate finance (domestic and international) and engaged with them in understanding the technical components of potential concept notes. In the case of Gujarat, the team also arranged for a particular line department to present on their pilot project which was to be developed into a detailed concept note. Officials from the NABARD were also invited to provide their perspective, as the AE of climate funds, on how a State department should approach this exercise.
4. *Documenting the concept notes in both States:* Based on follow-ups with departments after the workshop and gathering additional data on the projects, the Study team has documented potential concept notes wherever adequate information was provided.
5. *Feedback on the NABARD's support:* The Study team has also documented the feedback from select States on their experiences while working with the NABARD on concept note development and submission. Secondly, this exercise was also used to gather the EE's perspectives on areas where further improvements can be made. This exercise is expected to improve the cooperation and relationship between the NABARD and State level EEs and smoothen the process of concept note submission.

Chapter 2: Stepping beyond the State budget for climate finance: Gujarat

Gujarat was one of the first States to establish an exclusive cell for spearheading climate change programmes back in 2010. This marked the formation of the Climate Change Department (CCD). However, their SAPCC (GIZ 2014) was published in the year 2014 after which concerted implementation efforts began. This document contained several prioritised sector-specific strategies which encapsulated both exclusive climate change mitigation and adaptation actions as well as ongoing development programmes dovetailed to include some climate orientation.

Like all other States, Gujarat attempted to earmark exclusive funds for its SAPCC. The CCD formally recognized a separate budget from its end which would fund specific programmes under each of the line departments, this was called the Climate Change Budget Scheme (Climate Change Department 2017). Efforts to highlight such programmes were taken up by the CCD in coordination with other departments. Similarly, CCD has also devoted concerted efforts towards setting up a dedicated fund for promoting research & development, incubation and training under specific themes related to climate change. However, some of these are yet to fructify in terms of actually funding specific actions.

1. *Ongoing departmental schemes/Externally Aided Projects (EAPs)*: While the implementation of such schemes is periodically monitored department wise through Annual Budgets/ Plans, Outcome Budgets, etc. the climate co-benefits of such schemes are seldom identified. For instance, departments like the Gujarat Energy Development Agency (GEDA) routinely implement schemes like the Residential Rooftop Solar Plants which have a direct climate mitigation impact. Other noteworthy schemes are the Solar Parks, Canal-based Solar Power and the Gandhi Nagar Solar City Project. Similarly, other departments like the Gujarat State Disaster Management Authority (GSDMA) implement programmes which directly aim at building climate resilience. Nevertheless, department-wise reporting of the exact expenditure on programmes with climate orientation, given the absence of any climate budgeting framework in the current fiscal system, is an issue that is yet to be addressed. States are expected to slowly move towards this exercise of highlighting precisely the expected expenditure (Sethi 2017) towards climate actions. The initiative to earmark certain portions of the CCD's budget towards funding climate change related schemes of other departments could pave the way towards this effect.
2. *Exclusive State Policies*: Gujarat, being considered one of the more economically developed States, has also taken steps towards promoting clean energy alternatives within the State. The Gujarat Solar Policy of 2015, the Gujarat Wind Power Policy of 2016 and the Gujarat Waste-to-Energy Policy of 2016 are noteworthy. While they mostly provide policy support through targets, guidelines for implementation, institutional frameworks, etc. they seldom bestow the required support by means of additional finances. Hence, achieving the targets of these policies is dependent on the schemes/programmes that the policies are routed through at the department level.

3. *Pilot/Demonstration projects through dedicated climate funds:* While the CCD anchors climate change initiatives within the State, other line departments often design and implement innovative models and demonstration projects which deliver significant climate co-benefits. The Gujarat Ecological Education and Research Foundation (GEER) is one of them which has recently availed funding of INR 23,67,21,550 from the NAFCC for a four-year project on Strengthening Resilience through Water & Livelihood Security and Ecosystem Restoration in the Kachchh region (GEER 2017). Similarly, a few other departments are in the process of developing concept notes based on their pilot projects. The Study team, through its interactions with them, has identified one project⁷ which could potentially be developed into a full-fledged proposal. The projects funded by the NAFCC are up to INR 25 Crores (MoEF&CC 2015) and hence might create limited impacts in the larger context of climate adaptation. However, such projects can be considered as being significant steps taken by State departments towards integrating climate concerns with development and also identify scalable best practices which when expanded could help building greater resilience.
4. *Implementation of the SAPCC/NAPCC (National Missions):* The State is planning on financing some of its SAPCC strategies through the funds earmarked in the Climate Change Budget Scheme and through other departmental schemes. However, reporting the progress achieved against these targets and planned activities is expected to be a contentious issue in the future. The National Missions under the NAPCC might not have disbursed substantial funding to the State under a separate budget head. Nonetheless, given that most of the actions proposed within the SAPCC and the NAPCC are routed through ongoing departmental schemes, flagship programmes, it has been observed that significant finances have been provided for, through the Urban Development Mission – Smart Cities, Mission for Rejuvenation and Urban Transformation (AMRUT), Mahatma Gandhi Swachhata Mission, etc.

While the previous section highlights the different means adopted by Gujarat in promoting climate change activities, this section will summarise one particular concept that the Study team has identified as having the potential for expansion into a detailed project under the NAFCC.

⁷The Bio-village concept of the Gujarat Ecology Commission is one such project, detailed in the next section.

Bio-village Concept

The overall aim of the Bio-village concept was to promote environment conservation in the villages of Gujarat. While most villages are heavily dependent on agriculture or agro-based livelihoods, this has resulted in widespread exploitation of ground water and depletion of soil quality. Hence, through a string of ground level interventions targeting sustainable natural resource management and enhancement of livelihoods, **this concept seeks to build resilience in villages towards climate variability through a multi-sectoral approach.**

Specifically, the bio-village concept seeks to achieve the following objectives:

- To promote crop diversification from the existing monoculture
- To promote System of Rice Intensification (SRI) wherever applicable
- To protect forest resources and natural water bodies
- To diversify into non-farm livelihoods (like those based on forest products by introducing other alternative strategies)
- To improve irrigation and groundwater recharge methods.
- To enhance energy efficiency and provide renewable alternatives to conventional power sources
- To regulate local solid and liquid waste management.
- To explore the possibility of microcredit options enhancing livelihoods

This concept has been piloted in the Dhaj Village, Mandvi Taluk, Surat District by the GEC, which now plans to scale up the project with additional funding.

Like the GEER and the GEC, other departments will need to work towards identifying the link between their innovations and climate adaptation/mitigation and thereafter develop them into project proposals. Such proposals could then be targeted for submission to the likes of the NAFCC or the GCF.

Chapter 3: Stepping beyond the State budget for climate finance: Madhya Pradesh

The potential for ongoing public spending and sectoral investments in actions that have the scope to target adaptation and/or mitigation outcomes and respond to critical needs in this domain are well documented (Ray 2008) (Krishnaswamy, Chatpalliwar and Dubey 2014); specifically at the State level (Mandal, et al. 2013). Given the country's federal fiscal framework in place, it is important to understand the channels in which potential climate change activities are active in the State.

Ruminations over strategizing and goal-setting for the State's climate change concerns have been active in Madhya Pradesh since 2009. This has been marked by the State's Climate Change Cell being formed within the Environmental Planning and Coordination Organisation⁸ (EPCO), and the formulation of its SAPCC thereon⁹ in 2013. The EPCO is also designated as the State Knowledge Management Centre on Climate Change (SKMCCC) in order to serve as a dedicated platform for relevant climate change discourses and knowledge dissemination for the State. This is an important enabling step in the process of State-level mainstreaming of climate change concerns. This is also the first of its kind in the country, formed with the financial support from the Department of Science and Technology, under the National Mission on Strategic Knowledge for Climate Change (NMSKCC).

The Madhya Pradesh SAPCC (MP-SAPCC) prioritises key strategies and activities across ten major sectors identified as sensitive to climate change, based on vulnerability assessments. The total required outlay for these is estimated at INR 4,700 Crores, for which potential technical and financial convergences have been highlighted. It is notable that these sources cover a range of funds from bilateral arrangements to State and Central Governments, specific flagship programmes and the National Missions under the NAPCC. Hence the proposed structure for cost requirements and technical convergence relies on significant interlinkages in funds flow between various budgetary resources, at least within the domestic context. For instance, an amount of INR 8.23 Crores was allocated for preparatory activities under the National Mission for a Green India (GIM) out of a total outlay of INR 50 Crores, making the State the second largest recipient in the country at this stage (IndiaSpend 2012). The sources for allocations under the GIM were meant to be Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), Compensatory Afforestation Fund Management and Planning Authority (CAMPA), related schemes from other Ministries, as well as the National Clean Energy & Environment Fund (NCEEF), MoEF&CC and other international sources. Incidentally, budget estimates for 2017-18 show that NCEEF resources would support the MoEF&CC, Ministry of New and Renewable Energy (MNRE) and Ministry of Water Resources (MoWR) with funds of over INR 8,700 Crores, clearly mapping the financial flow into around 13 major schemes/programmes¹⁰. In a similar manner, various activities pertaining to specific adaptation and/or mitigation outcomes are planned to be achieved through multiple existing and overlapping financing routes.

⁸ The EPCO is an advisory body informing the State Government on matters of environmental policy.

⁹ These are a few of the significant outcomes of the UNDP-Government of Madhya Pradesh engagement on Strengthening the MP Climate Change Cell over the period 2009-12.

¹⁰ Refer http://doe.gov.in/sites/default/files/NCEF%20Brief_post_BE_2017-18.pdf

While the MP-SAPCC's outlay estimates are mentioned on an indicative basis (possible financial convergence), it is also to be acknowledged that a demarcation of activities addressing climate change concerns already covered through ongoing departmental initiatives is unclear (technical convergence).

It is also notable that a systematic tracking and documenting of their direct climate benefits / co-benefits is yet to be undertaken on a concurrent basis. However, this could be expected to soon be implemented at least from a budgetary perspective, i.e. for domestic public finance, through the use of an exclusive climate expenditure head (Sethi 2017). With such essential classification in place, identification of more pertinent schemes/programmes for suitable MP-SAPCC activities (or even newer offshoots) would become more systematic and institutionalised.

Given the inherent complexities in achieving a smoother flow of domestic climate finance to the State agenda, as discussed in earlier sections, it is notable that Madhya Pradesh has already forayed into targeting dedicated sources such as the AF, GCF, NAFCC and the NCEEF. With the SKMCCC coordinating the State's progress in its climate change agenda, proposal development and discussions have been under way over the past few years. This has led to an appreciation of the fund-specific modalities that are to be adhered to by entities applying for climate finance. The Study team's interaction with the SKMCCC and select MP State departments revealed that beyond a basic awareness of the various funding sources, there is a greater need to motivate potential ideas from line departments for this purpose. Key cross-cutting sectors prioritised in resilience building efforts for the State include water, agriculture, forestry and biodiversity: most of the proposals developed and submitted so far to the dedicated funds have prevailed on these themes.

- The State has been sanctioned funding under the NAFCC for the project 'Enhancing Adaptive Capacity to Climate Change through Developing Climate-Smart Villages in Select Vulnerable Districts of Madhya Pradesh'. This is based on a participative model of mainstreaming village level development activities with the broader SAPCC strategies, with a view of strengthening adaptive capacity to climate change in 60 villages of Sehore, Rajgarh and Satna districts.
- On a similar initiative to build climate-smart villages in Betul District using a landscape approach, the State has also targeted the GCF. Through the current study, stakeholder consultations revealed considerable interest among various State departments to understand specific GCF requirements, leading to discussions of scaling up ideas and interventions to suitably approach the Fund.
- With a similar objective, the State has also been sanctioned funds close to USD 4.35 million for two projects by the Adaptation Fund Board: one addressing climate resilience in small inland fishing communities and another additionally targeting ecological security in the Kanha-Pench Corridor (NABARD 2017). The former is being undertaken by TAAL in the Dhar District, while the latter is being jointly executed by the MP Forest Department and the Royal Bank of Scotland.
- The State has initiated a large scale mandate to build farmers' resilience and preparedness to climate change impacts on agriculture and farm productivity. Aimed to reach out to

100 villages in each of its 11 agro-climatic zones, this initiative is jointly undertaken by the National Mission for Sustainable Agriculture (NMSA) and the National Agriculture Development Programme (NADP). Interventions would include integrated agriculture approaches, promotion of drought-resistant seed varieties, agro-forestry practices, to name a few.

- The NCEEF is being tapped for the promotion of solar irrigation pumps, especially in villages not yet connected to the grid. The NABARD has a scheme for this purpose, and Jabalpur is the first District in the State where operations have begun under this initiative (Shrivastava 2016).

The study also conducted an exploration of potential ideas that the State departments would be inclined to take forward. This was done through scoping interviews with the EPCO and select line departments, as well as through a stakeholder workshop held at Bhopal, anchored by the EPCO. Based on these interactions, the following section briefly outlines two such initiatives that could be taken forward jointly with the concerned departments/agencies.

Sowing the seeds of sustainability

The Madhya Pradesh Beej Nigam is entrusted with maintaining sufficient supply and access of certified seed varieties to farmers. In the current context of building farmers' preparedness to climate change through promotion of drought-resilient seed varieties and restoration of traditional/indigenous seed strains to improve biodiversity, the Study team observed the high relevance of integrating the Beej Nigam's pivotal role as an enabling partner.

The Nigam cultivates seed varieties in its own plots spanning a little over 2,000 ha across 40 farms in the State and promotes them among its 4500 member farmers, who produce the certified seeds. A potential collaboration could be considered between the Nigam and currently active Biodiversity Management Committees (BMCs) that have People's Biodiversity Register (PBRs) of the respective panchayats. The main objectives of this collaboration would be:

- To improve the visibility of local varieties captured through the PBR through the Nigam's platform
- To integrate the Nigam in the ongoing climate-smart agriculture initiatives of the State

Biodiversity Management Committees and the creation of Bio-villages

The Madhya Pradesh State Biodiversity Board (MPSBB) is the State level counterpart to the country's mechanism overseeing conservation and equity in benefit sharing from local biodiversity resources.

This is coordinated through the formation of BMCs at the local level. Currently there are around 200 BMCs in the State, and the MPSBB has a mandate to expand this network across the State over time. A BMC is primarily responsible for generating and maintaining a PBR, which captures an inventory of local natural resources, as well as records any commercial usage of the same, by external parties.

Providing impetus to the BMC network expansion agenda has been the Namami Devi Narmade campaign, which has drawn considerable attention towards the cause of conservation and sustainable use of natural resources along the river's course. The MPSBB has initiated a community outreach in the panchayats along the Narmada to create awareness among the villagers and secure their cooperation in the formation of BMCs. The initial target through this drive is to create at least 400 new BMCs.

The MPSBB has expressed its inclination to target the creation of bio-villages, which would integrate several development and natural resource management interventions that would be coordinated in tandem with the BMC expansion process. Initial discussions have revealed that the following dimensions would be part of the design of this model:

- Promotion of traditional species
- Organic farming and manure
- Biogas generation
- Agro forestry
- Fodder program
- Pasture development programs
- Waste management systems at Panchayat level
- Drainage/sewage treatment

This would require the cooperation and joint planning efforts across various concerned departments; however, it is proposed that the MPSBB host the consultative process for shaping up the bio-village model as a holistic concept.

Chapter 4: A Stepwise Approach to accessing the NAFCC

The NAFCC¹¹, set up in 2014-15, aims to protect vulnerable communities from the adverse impacts of climate change. It intends to promote a paradigm shift towards low-emission and climate-resilient development pathways by supporting activities in the agriculture and rural development sector, thereby helping them adapt to the expected impacts of climate change. Some of the thematic foci¹² of the NAFCC are i) human development ii) poverty alleviation iii) climate resilient livelihoods iv) enhanced awareness of community v) water and food security vi) adaptive sustainable agriculture vii) watershed regeneration and ecosystems management viii) livestock management ix) renewable energy x) disaster risk reduction x) sanitation and village cleanliness etc. The NAFCC's financial support is capped at INR 25 Crores for a project span of over 3-4 years and is usually in the form of grants. The institutional mechanism established for the NAFCC's operation is outlined in Figure 4.1, and the major components required in the concept note/detailed project report (DPR) are outlined in Figure 4.2.

FIGURE 4.1: NAFCC: ROLES & RESPONSIBILITIES OF KEY INSTITUTIONS INVOLVED

Executing Entity
<ul style="list-style-type: none"> Steer the development of concept note Preparation & coordination of implementation plans
Nodal Department (Climate Change cell/Department of Environment)
<ul style="list-style-type: none"> Steer the development of concept note Preparation & coordination of implementation plans
NABARD
<ul style="list-style-type: none"> Technical, financial and administrative guidance to the EE Coordination of concept note & DPR submission & MoEF&CC feedback Supervising fund utilisation by the EE Monitoring project implementation and its evaluation either by itself or through third party evaluators
MoEF&CC
<ul style="list-style-type: none"> Technical feedback on the Concept Note through the Technical Scrutiny Committee(TSC) DPR approval and fund sanction

Concept note/DPR Preparation & Approval

The EE prepares concept notes, in coordination with the NABARD or other technical partners, wherever relevant, for submission to the State Level Steering Committee (SLSC)¹³ and thereafter

¹¹ This has been collated from the Final Implementation Guidelines of the NAFCC and NABARD's external communication documents.

¹² This is not meant to be an exhaustive list of themes that the NAFCC aims to fund, but includes important areas.

forwarded to the TSC¹⁴, MoEF&CC via the NABARD. Upon incorporating feedback on the concept note routed through the NABARD, the EE next submits a DPR. This undergoes a similar review process at both the State and Ministry level, to be then evaluated and considered for approval by the National Steering Committee on Climate Change (NSCCC¹⁵).

FIGURE 4.2 NAFCC: KEY COMPONENTS OF A CONCEPT NOTE/DPR

Problem statement	<ul style="list-style-type: none"> • Need for the pilot/demonstration project and its ability to resolve the issue identified • Specifics on the region's climate profile, vulnerability assessment of the region to specific hazards
Development & climate adaptation/mitigation outcomes	<ul style="list-style-type: none"> • Various interventions/activities to link the problem statement with outcomes
Implementation framework	<ul style="list-style-type: none"> • Departments involved, with respective roles & responsibilities • Convergence with any existing scheme
Demonstration of EE's capacity	<ul style="list-style-type: none"> • Current manpower, additional requirements, recruitment plans, nature of manpower engagement, etc • Specific project needs for capacity building
Data availability and future survey requirements	<ul style="list-style-type: none"> • Baseline data on relevant indicators • Ground level assessments, FGDs to fill any data gaps
Sustainability of project outcomes	<ul style="list-style-type: none"> • Strategies to be undertaken by the EE to sustain project outcomes even after project completion (beyond 3 - 4 years)
Relevance to National and State level climate policies	<ul style="list-style-type: none"> • Snapshot of how the project would synchronise with existing climate adaptation and mitigation efforts
Environmental and Social Risk Assessment	<ul style="list-style-type: none"> • Safeguards to mitigate these risks
Results framework	<ul style="list-style-type: none"> • Establish internal M&E and robustness of project outcomes
Dissemination plan	<ul style="list-style-type: none"> • Outreach and sensitisation across various project stakeholders
Timeline & budget	<ul style="list-style-type: none"> • Sequence of interventions, mid-term assessments etc

¹³ The SLSC consists of the Chief Secretary, officials from the nodal department for climate change programmes, officials from all the relevant line departments & the NABARD.

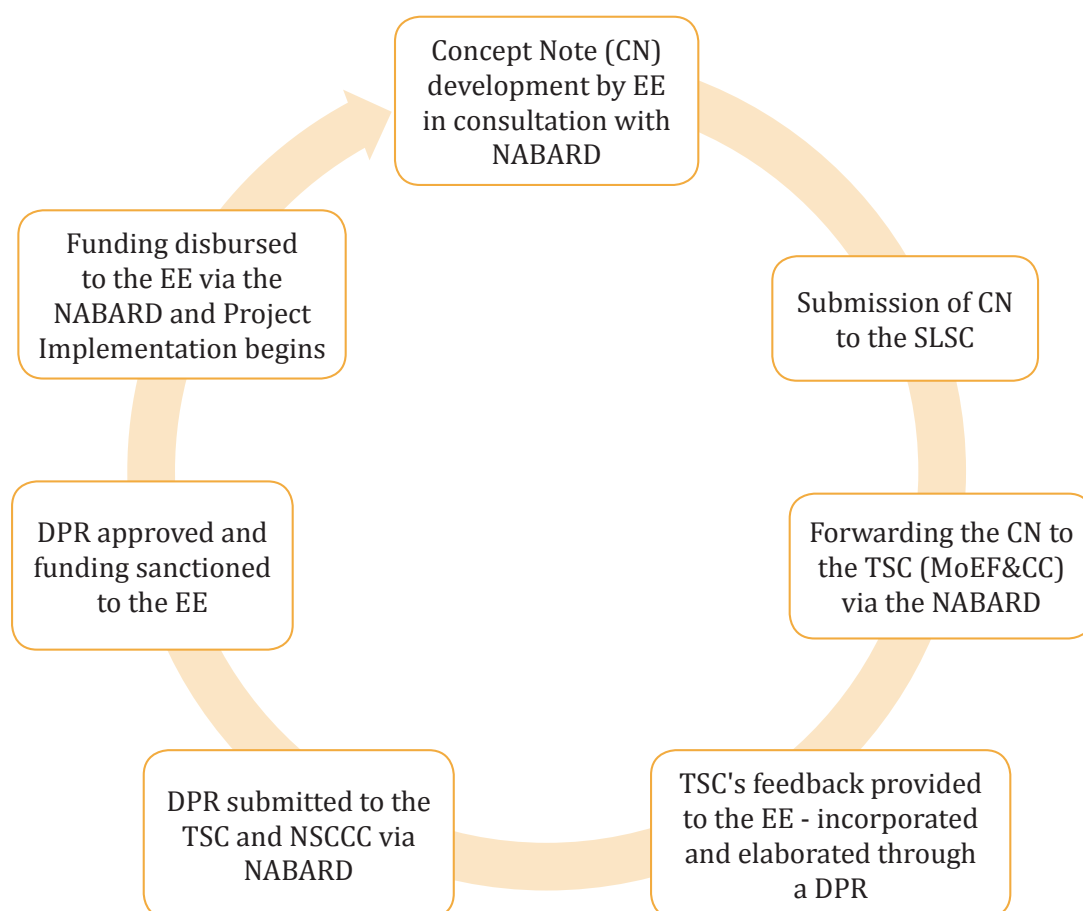
¹⁴ The TSC comprised of the Joint Secretary (Climate Change), Representatives of the Ministry of Agriculture & Cooperation, Water Resources, Health, Dept. of Expenditure, & the Director (Climate Change).

¹⁵ This is led by the Secretary of the MoEF&CC and representatives of all other Ministries.

The MoEF&CC further initiates sanctioning of funds to the NABARD and to the EE. During and post implementation, the NABARD will carry out the M&E activities of the project and ensure its effective implementation.

The DPR preparation cycle would have to be suitably timed, taking into account the above process, as this would decide the disbursement of funds in the current financial year or the next. An outline of the cycle is provided below.

FIGURE 4.3: CYCLE OF CONCEPT NOTE/DPR PREPARATION



Similarly, detailed approaches have been outlined on project preparation and submission to the GCF. This is expected to help States prioritise their steps during this process and plan their activities accordingly. States could refer to the Green Climate Fund Toolkit (Fayolle and Odianose 2017) prepared by Acclimatise and CDKN for detailed guidelines for it.

Strengthening the climate focus of potential projects

There is scope for customising line departments' efforts based on the nature of projects they are interested to develop. While line departments often oversee innovations and robust demonstrative projects, there may not be an explicit link between such project and their climate mitigation and adaptation benefits. Hence, conscious efforts to delineate the climate focus of their sectoral projects within the State could be taken in consultation with the Climate Change Department/Department of Environment. The line departments could adopt the following actions to identify the climate benefits of its projects:

- a) **Mitigation benefits:** Each department could periodically but mandatorily estimate potential reductions in Greenhouse Gas (GHG) Emissions expected of their schemes/programmes. A sample estimation of the schemes/programmes specific to a region could provide the mitigation potential of the scheme/programme thereby helping them prioritise and design innovations at the ground level and also be used as a criterion to assess the climate mitigation benefits of their programmes while developing DPRs. For instance, application of bio-manures might result in a reduction of GHG emissions by specific units. If this was measured and recorded periodically on a unit wise basis, it might help prioritise between the department's projects and design DPRs accordingly. The Indian Network for Climate Change Assessment (INCCA) report published by the Ministry (MoEF&CC 2010) provides a standard method and framework for reporting sectoral GHG emissions and reduction potentials.
- b) **Adaptation benefits:** It is important for departments to assess the sectoral vulnerabilities to climate change within the State as a prerequisite and thereafter understand how their programmes help reduce these vulnerabilities or build resilience.
- c) **Budget contribution to adaptation/mitigation:** Similarly, a simple weighted climate budgeting exercise (Stephanie Allan 2016) could help departments understand the climate orientation of their current budgets and thereafter develop exclusive climate interventions which do not fall within the scope of their current department schemes.

Chapter 5: Accessing the NAFCC: Engaging with the NABARD

The NABARD is the AE for dedicated climate funds like the NAFCC and the GCF. Hence it is mandated to provide technical support and capacity to the State nodal departments (Environment/Climate Change/Forest) and the Executing Entity (EE) (the concerned department which is submitting the concept note/proposal) across various stages of project formulation and submission. The NABARD, through its Regional Offices (ROs), has been enabling States' access to the NAFCC since 2015, and currently 21 projects across all except eight States and UTs¹⁶ have been funded.

In the context of the NAFCC, stakeholder perspectives from EEs and State nodal agencies were collated in an effort to understand the level of interaction between the NABARD and the State departments during the process of their proposal submissions and to identify areas where the NABARD support could be further enhanced for the benefit of the States. A summary of the major observations is presented below, followed by suggestions on potential areas for the NABARD to further its State level engagement in enabling financing of climate actions.

- 1. Motivating concept notes for the NAFCC:** While most States have already begun actively seeking funding to implement components of their respective SAPCCs, the critical role of the NABARD in motivating concept note preparation for the NAFCC has been widely recognised. Ideas for climate-relevant solutions and interventions that had been hitherto internal to departments or research institutions have been actively brought forth through the NABARD's participation in State level workshops/conferences. This has led to valuable proposals receiving greater focus and being converted into implementable projects.
- 2. EE's preparedness at the concept note stage:** The EEs acknowledged that the NABARD's support in reviewing and resolving the TSC queries on their CNs and DPRs has been very valuable. Some also opined that training/capacity building for this purpose would be most welcome at an earlier stage. Some States had themselves conducted workshops inviting the NABARD, wherein EEs and relevant departments received the NABARD's inputs, although this was not particularly targeting the NAFCC. Most of the EEs' learning in refining the NAFCC proposals/DPRs has been during the submission process. Going forward, this could be formalised as an orientation prerequisite to new EEs aspiring to target the NAFCC.
- 3. Clarity in routing of proposals and handling reviews from TSC (MoEF&CC):** There is sufficient procedural clarity in the roles and inputs to be received at each stage of concept note submission and DPR preparation, among the EEs, nodal agencies and the NABARD representatives. Given that the TSC approval is necessary for any major design-level revision, the process is found to ensure that fairly robust plans are arrived at through internal State-level deliberations itself (prior to submission to the TSC).

¹⁶ The project concept notes are either being developed or yet to be submitted in these States & UTs as of May 2017.

4. **NABARD's inputs to the proposal revision process:** The EEs highlight that the multiple rounds of revisions that the DPRs have undergone prior to final approval have enhanced their quality and robustness. The inputs received from the NABARD in this phase have ranged from compliance to NAFCC guidelines, templates to higher level technical aspects.
5. **Reporting and monitoring:** For those projects that are already being implemented, it is understood that the internal progress is documented in customised formats of the EE/ relevant departments.

However, quarterly technical and financial progress is shared as per norms with the NABARD, which in turn forwards the same to the MoEF&CC. In select cases where the NABARD already has a default role to play in the department's activities (like rural development, animal husbandry etc.), the District/Regional level representatives are also part of routine monitoring.

6. **Third party assessments:** Mid-course evaluation of progress and outcomes are mandatory for projects extending beyond three years' duration. The same is also planned for in the project review mechanism. There would be greater clarity on this once projects are well into the implementation phase. However, at this stage it is understood that while some EEs have identified a suitable third party to undertake these assessments, more recent developments indicate that the MoEF&CC would handle this for all NAFCC projects.

Going forward: The NABARD's involvement in accessing the NAFCC has induced widespread awareness among Departments of its potential support in the climate adaptation domain. This takes its engagement beyond its more popular apex role in agriculture and rural development. The major suggestions that emerged from stakeholders are collated below:

1. **Provide more writeshops and preparatory training:** A common view has been the usefulness of the NABARD's training sessions on how to write proposals. Although some EEs attended these after submission of their CNs, they did acknowledge the potential value addition this could have had on their own proposals. Hence the NABARD could consider rendering more such sessions as a preparatory exercise, as these could improve writing quality that could have benefits spill over the current NAFCC purpose.
2. **Focus on other sectoral initiatives:** While the NABARD's role has deepened the existing focus on certain adaptation interventions (such as climate-resilient agriculture, integrated village development etc.), EEs have also expressed a need to motivate other Departments (like Renewable Energy, Urban Development, Roads & Transport, etc.) to submit their ideas to the NAFCC. On the same note, a few EEs also mentioned that in situations where the EE might require greater technical (sectoral) assistance, the NABARD could step up its internal expertise to support other themes being submitted, until other NIEs emerge.
3. **Capacities at the ROs:** It was also observed that at the State level, the NABARD ROs could build internal capacity on climate change (adaptation and mitigation) and linking development with climate change. This could be important because the ROs and the EEs communicate with each other regularly to discuss and report on the projects and such additional capacity could make design and implementation of the projects more robust.

4. **Empanel domain experts and technical institutions:** Given how the NABARD has linked nodal departments and EEs with research institutions so far in the NAFCC process, some EEs suggested that it could play a pivotal role in creating an exclusive platform for brainstorming and seeking technical guidance. The NABARD could consider empanelment of relevant organisations to network the most suited partner agencies for informing and executing adaptation interventions. This would also help the NABARD support proposals that it does not have in-house expertise in, by liaising formally with relevant institutions.
5. **Extension support to sustain select adaptation outcomes:** The NABARD's rural network could be leveraged to disseminate and promote successful adaptation models in rural livelihoods, climate-smart farming, dairy & livestock development etc. which emerge from the NAFCC projects upon their completion. This could provide a post-project sustainability for interventions through potential integration of micro-entrepreneurs and the market with climate-resilient practices.

Bibliography

Climate Change Cell, EPCO. Strengthening MP Climate Change Cell. Project Completion Report, Bhopal: EPCO, 2013.

Climate Change Department. “Budget Estimates of Climate Change Department for 2017-18.” Climate Change Department, Government of Gujarat. 3 April 2017.

<https://www.ccd.gujarat.gov.in/images/pdf/Budget-Book-2017-18.pdf> (accessed May 20, 2017).

Energy and Petrochemicals Department. “Gujarat Solar Power Policy.” Climate Change Department, Gujarat. August 2015.

<https://ccd.gujarat.gov.in/images/gujarat-solar-power-policy-2015.pdf>.

– “Gujarat Waste to Energy Policy.” Climate Change Department, Gujarat. March 2016.

<https://ccd.gujarat.gov.in/images/Waste-to-Energy-Policy-2016.pdf>.

– “Gujarat Wind Power Policy.” Climate Change Department, Gujarat. August 2016.

<https://ccd.gujarat.gov.in/images/wind-Power-Policy-2016.pdf>.

Express News Service “Odisha gets first green climate project.” *New Indian Express*, 7 April 2017.

Fayolle, Virginie, and Serena Odianose. Green Climate Fund Proposal Toolkit 2017. London: Acclimatise and Climate and Development Knowledge Network, 2017.

GEER. Climate Change Adaptation for Natural Resource Dependent Communities in Kachchh, Gujarat: Strengthening Resilience through Water & Livelihood Security and Ecosystem Restoration. Ahmedabad: GEER, 2017.

GIZ, TERI and. Gujarat State Action Plan on Climate Change. CCD, 2014.

Green Climate Fund. “GCF in Numbers: Status as of 2017.Q2.” Green Climate Fund. July 2017. http://www.greenclimate.fund/documents/20182/24871/GCF_in_Numbers.pdf/226fc825-3c56-4d71-9a4c-60fd83e5fb03 (accessed July 30, 2017).

IndiaSpend. “India’s top green spend States: Chhattisgarh & Madhya Pradesh.” IndiaSpend, 24 July 2012.

Jha, Vyoma. The coordination of climate finance in India. London: Overseas Development Institute, 2014.

Jogesh, Anu, and Navroz Dubash. An Analysis of the Madhya Pradesh State Action Plan on Climate Change. New Delhi: Centre for Policy Research, 2014.

Krishnaswamy, Srinivas, Siddharth Chatpalliwar, and Sunita Dubey. A Handbook of Climate Finance in India. New Delhi: Vasudha Foundation, 2014.

Mandal, Koyel, V Shivaranjani, Sunanda Rathi, Vivek Venkataramani, and Haripriya Gundimeda. Climate Finance at the Sub-National Level - The Case of Odisha. Chennai: IFMR LEAD, 2013.

Mathew, Rowena, and Sanjay Vashist. Five Year Perspective Plan (2016-2021) for Madhya Pradesh State Knowledge Management Centre on Climate Change. New Delhi: Development Alternatives, 2015.

MoEF&CC. "Implementation Guidelines for National Adaptation Fund on Climate Change (NAFCC)." NABARD. August 2015.

<http://www.nabard.org/auth/writereaddata/File/FinalImplementationNAdaptFund.pdf> (accessed October 2015).

MoEF&CC. "Indian Network for Climate Change Assessment, India Greenhouse Gas Emissions 2007." 2010.

NABARD. Adaptation Fund under UNited Nations Framework Convention on Climate Change. 2017.

<http://www.nabard.org/content1.aspx?id=583&catid=8&mid=489> (accessed May 2017).

Odianose, Virginie Fayolle and Serena. Green Climate Fund Proposal Toolkit 2017: Toolkit to develop a project proposal for the GCF. Acclimatise and CDKN , 2017.

Ray, Rajasree. "Adaptation Activities in India." Development Outreach, April 2008: 18-21.

Sethi, Nitin. "India to have climate change budgetary supplement from next year." Business Standard, February 2017.

Shrivastava, Piyush. "Unique solar irrigation pump scheme initiated." The Hitavada. Jabalpur, Madhya Pradesh, 13 September 2016.

SKMCCC. "About Us: SKMCCC." State Knowledge Management Centre on Climate Change. 2017. <http://www.skmcccpc.co.mp.gov.in/en/about-us/skmccc> (accessed May 2017).

Stephanie Allan, Elisabeth Resch, Laura Giles Alvarez and Kit Nicholson. Progress with Climate Change Financing Frameworks. ACT, 2016.

Thakkar, Lokendra. "A State Vulnerable and Responsive to Climate Change." Workshop on Development and Applications of Downscaling Climate Projections. Pune: Indian Institute of Tropical Meteorology, 2017.

The Economic Times. Madhya Pradesh plans to develop 1,100 'climate-smart' villages. Bhopal, 30 December 2016.



LEVERAGING EVIDENCE
FOR ACCESS AND
DEVELOPMENT

For further details on this Study, please contact
Vivek Venkataramani (vivek.v@ifmr.ac.in), Research Manager
in the Environment and Climate Change Programme (EnCC) at
IFMR LEAD.