Department for International Development

Creation of a Climate Resource Centre

ODISHA

April 2019 – June 2019

Infrastructure for Climate Resilient Growth in India (ICRG) Programme

Submitted By:

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1. Draft Concept Note

1.1. Background

The world's temperatures have already increased by up to 1.2°C since pre-industrial levels and the impact of this warming is visible in the form of extreme weather events, rising sea levels and diminishing Arctic sea ice (IPCC report 2018). In 2018, various parts of the world were battered by extreme weather events— be it heat waves and drought in Europe and China, forest fires in the USA, dust storms and unprecedented rainfall in India (including the historical floods in Kerala) and high precipitation in Japan and other island nations. One third of the world's poor people, approximately 300 million, live in India on less than $1.25 a day[1]. On current trends, despite significant progress over the last fifteen years, over 120 million poor people will remain highly exposed to climate related hazards by 2030 in India, more than in any other country[2]. This persistent vulnerability is due to the dependence of more than 60% of the population on agriculture for their livelihoods. Indian agriculture is particularly vulnerable to weather variability and climate change because it is largely rain-fed, with rainfall concentrated in the four monsoon months.[3] In Odisha, agriculture being the main source of livelihood for 2/3rd of people, the coastal lands are regularly affected by floods while the rest of the state is affected by drought or both. More than 90% of lands of the poor and marginalized families are rain fed with sandy-loam soils and slope characteristics carry high risks to climate variability. Women and girls are disproportionately vulnerable: as crop yields decline and natural resources become scarcer, women's workloads increase reducing their access to basic amenities like education, water and health services[4] and compromising their time for economic activities and household tasks.

1.2. Need for a Climate Change Resource Cell

Durable and productive infrastructure contributes to sustainable livelihoods by providing irrigation services, drought management and restoring the natural resource base. These services can provide a stable income and improve food security for the poor.[5] Sound rural infrastructure, particularly for irrigation and water management, is therefore key to the livelihoods of the poor and strengthening their resilience to climate change[6]. Various livelihood and natural resource management programmes provide evidence that the income and agricultural productivity of poor farmers increases due to better physical assets. For example, the Independent Commission on Aid Impact (ICAI) review of DFID's Western Odisha Rural Livelihood Programme found that water management structures built under the programme improved agriculture productivity in 70% of watershed areas and 70% of marginal farmers reported improved capacity to cope with drought. Various central and state development programmes support the construction of rural infrastructure in India. The most significant of these is

[1] UN Millennium Development Goals report, 2014

[2] i.e. more poor people in India will be highly exposed to climate related hazards than in any other country: The geography of poverty, disasters and climate, extremes in 2030; ODI; 2013

[3] In 2011 *Maplecroft Global Risk Analytics* ranked India as the second most vulnerable country to the impacts of climate change after Bangladesh.

[4] South Asia: Shared Views on Development and Climate Change; The World Bank 2009

[5] DFID Sustainable Livelihoods Framework

[6] IISD, IUCN and NRSEI (2003) `Livelihoods and Climate Change: Combining disaster risk reduction, natural resource management and climate change adaptation in a new approach to the reduction of vulnerability and poverty', A Conceptual Framework Paper Prepared by the Task Force on Climate Change, Vulnerable Communities and Adaptation (www.unigraphics.mb.ca)

the Mahatma Gandhi National Employment Guarantee Scheme (MGNREGS)[7], under which poor people are paid a basic wage to construct infrastructure for 100 days per household each year on demand.

The Infrastructure for Climate Resilient Growth in India (ICRG), a programme supported by DFID is implemented in Odisha to improve durability of assets enshrined in MGNREGA by building climate resilience perspectives to enhance livelihood security of the rural poor, particularly of those dependent on rain-fed agriculture. The programme helps in improving the capacity of Panchayats and other implementation agencies in scientific planning of resilient infrastructure under MGNREGS. With the help of engineers and CSOs engaged under the programme, massive orientations and trainings have been organised; about 249 climate resilient works are being demonstrated and budget to the tune of INR 60 lakhs has been leveraged from different schemes to make the MGNREGS works durable and climate proof.

Highlights of ICRG programme in Odisha

- Using data from climate modelling and vulnerability assessment the programme has facilitated selection and design of 249 climate resilient works (CRW) across 35 blocks.
- The programme has influenced the labour budget preparation of 226 Gram Panchayats in the 35 blocks by ensuring that the choice of MGNREGS shelf of works considers data on climate modelling and vulnerability assessments.
- A study on "Managing Distress Migration and Enhancing Resilience Through Climate Appropriate Interventions Under MGNREGS in Western Odisha" has been conducted.
- MoU has been signed with OLM and ICAR - CIWA to introduce climate smart livelihoods practices in convergence with MGNREGS.
- About INR 1 crore fund has been leveraged from different schemes and programmes of line Departments to ensure CRWs are linked to livelihoods
- Series of training programmes held for both administrative and technical staff of MGNREGS on climate change based planning and climate resilient designs.

ICRG, is a technical assistance programme and in the last 3.5 years has been able to generate several learning materials that will help MGNREGS in the state to make the NRM works durable and climate proof. In the last year of the ICRG programme i.e. 2019, the focus will be on consolidation of interventions, scale up and institutionalisation of the interventions that have been recognised. Considering the potential impact of climate change in the days to come, it is proposed that all the NRM works taken up under MGNREGS across the state should be climate proofed. Without climate action, the poorest and most vulnerable people will be the most affected. Climate change also exacerbates disasters and combating it is vital to guaranteeing survival and the wellbeing of future generations. Therefore, the sustainable development goals (SDGs) have included a strong agenda on climate change with goal 13 as climate action.

[7] This was launched in 2005 under an Act of Parliament: Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). Studies and research use MGNREGA and MGNREGS interchangeably.

SDG 13: Climate Action

Targets

I. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
II. Integrate climate change measures into national policies, strategies and planning
III. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
IV. Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible
V. Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

Hence there is a strong need to constitute a Climate Change Resource Cell within the Panchayati Raj & Drinking Water Department to devise strategies to strengthen the rural infrastructures and climate proof them.

1.3. Purpose

The purpose of setting up the Climate Change Resource Cell within the Department is:

I. Plan and design the NRM works under MGNREGS in the context of climate change to make them durable and climate proof.
II. Link the MGNREGS works to climate smart livelihoods practices with convergence of OLM and other schemes and build resilience of poor.
III. Build the capacity of implementing agencies on planning and design of climate resilient works and empower different stakeholders on climate change and their potential impacts.

1.4. Operational details of Climate Change Resource Cell

The Climate Change Resource Cell shall be the decision making body within the Department to link climate change in the flagship schemes focusing on rural infrastructures. The key functions of the Climate Resource Cell will be as follows.

A. The Climate Change Resource Cell shall take up climate resilient works under MGNREGS across the state in general and 19 districts (high potential MGNREGS districts) in particular. In the first phase, efforts shall be made to make the NRM works climate proof in the 19 districts (list of districts annexed). To make the MGNREGS NRM works climate proof, hand holding support shall be provided by the ICRG team for the time remaining on the project. All the available information with the ICRG team in the 5 districts shall be shared and training will be conducted. The additional information which would be required to take up CRWs in districts other than ICRG districts shall be discussed and decided by the Cell. The Cell may engage technical institutions like IIT Bhubaneswar to undertake a climate modelling study to understand the historical climate change scenario and future climate change in the remaining blocks of 19 districts.
B. MGNREGS Odisha Society shall play a key role in scaling up ICRG interventions and take up CRWs in the 19 districts. The Society will be well versed with planning and design of climate resilient

works under MGNREGS. The designs of the NRM works in the ICRG districts, the MGNREGS toolkits prepared under the programme and the studies undertaken shall also be handed over to the Society. The ICRG team shall take up necessary trainings to build the capacity of MGNREGS Society in this regard.

C. Convergence is one of the key factors for the success of CRWs and hence each CRW shall be linked to livelihoods. OLM shall take the lead in linking the MGNREGS works to livelihoods. It may leverage resources from other schemes as required to make the MGNREGS works and the livelihoods more productive. OLM shall incorporate climate change in all its training modules starting from state level to GP level. OLM shall use all its human resource at GP and Block level for imparting trainings to the community and their institutions on climate change. The climate change data and the vulnerability study data of ICRG programme shall be used by OLM while planning for livelihoods interventions in the ICRG districts.

D. Training and capacity building are key areas in linking climate change in MGNREGS and other livelihoods and infrastructure schemes. A wide range of stakeholders need to be oriented and capacitated on climate change and its impact. SIRD shall be imparting the trainings on climate change at a wider scale engaging a variety of stakeholders. The ICRG team shall closely work with SIRD to devise training modules and resource materials for use at different trainings by SIRD.

E. The Climate Change Resource Cell shall liaise with Odisha Climate Change Cell[8] and other Departments to leverage resources for undertaking technical studies. It will work for incorporating climate resilient infrastructure under MGNREGS as part of State Climate Change Action Plan. The Cell will also work with Water Resource Department to provide technical support in implementing GCF project.

F. Climate Change Resource Cell can help in developing Disaster Management Plan and drought management plan for the Department.

G. The Climate Change Resource Cell shall closely work with MGNREGS Odisha Society, OLM and SIRD to deliver the followings;

- Carry out climate vulnerability assessment, scientific studies and climate variability assessments in blocks/districts for climate compatible planning.
- Handhold Gram Panchayats, and other implementation agencies to use participatory planning and watershed based/scientific planning of works under MGNREGS.
- Carry out training and capacity building activities for Block/District level engineers and technical staff on climate resilient planning and design of infrastructure.
- Ensure that each CRWs taken up under MGNREGS are linked to livelihoods.
- Decide and allocate budgets for human resources at the State, District and Block level.

1.5. Members in the Climate Change Resource Cell

The Climate Change Resource Cell may be housed in the MGNREGS Society and headed by Director Special Projects. The following members may be nominated;

1. Additional Secretary/Joint Secretary MGNREGS
2. Superintendent Engineer, PR& DW Department
3. Joint Director, SIRD
4. Joint Secretary, OLM

[8] This Cell is established under the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India and leads in the preparation of the State Action Plan for Climate Change.

5. Joint Secretary, Rural Housing
6. Joint Secretary RURBAN

Besides, the Climate Change Resource Cell may recruit external Experts to provide periodic technical inputs.

The ICRG Team will work closely with the Climate Change Resource Cell till December 2019 and provide all handholding supports to make the Cell fully operational. All technical reports and data handled by the ICRG Team shall be handed over to the Climate Change Resource Cell. The Team shall facilitate the Cell in commissioning base studies in other districts and blocks to scale up the programme. The ICRG Team will devise the operational strategy, human resource requirement, budget, trainings to be imparted and the IEC materials for the Climate Change Resource Cell.

1.6. Focus districts

Sl	Districts	Sl	Districts
1	Ganjam	**11**	Koraput
2	Gajapati	**12**	Malkanagir
3	Kandhamal	**13**	Sundergarh
4	Boudh	**14**	Mayurbhanj
5	Subarnapur	**15**	Keonjhar
6	Balangir	**16**	Debgarh
7	Kalahandi	**17**	Bargarh
8	Nuapada	**18**	Nayagarh
9	Rayagada	**19**	Anugul
10	Nabarangpur		

2. Proposed Action Plan (June 2019 to March 2020)

Sl.	Actions	Tentative timeline	Responsibility	Remarks
1	First meeting of CCRC to define roles and responsibilities among SIRD, OLM and MGNREGS Society. This meeting will also decide the human resource requirement, budget provisions etc.	July 19	PR & DW Department	ICRG to facilitate
2	Inception workshop for CCRC members on purpose, objectives, activities and expected outcomes of the Cell and the action plan of the key staff	July 2019	CCRC	ICRG to facilitate Experts from outside may be invited
3	Finalise the strategies that worked well for ICRG and devise the scale up plan	July 19	CCRC	ICRG to facilitate

Sl.	Actions	Tentative timeline	Responsibility	Remarks
4	Meeting with MGNREGS Society to discuss the strategies adopted by ICRG for climate proofing MGNREGS works, progress and the support required	July 19	MGNREGS Society	ICRG to facilitate
5	Issue of instructions to districts to complete the pending works of ICRG	July 19	MGNREGS Society	ICRG to facilitate
6	Action plan for LB under MGNREGS for the year 2020-21 in line with climate change especially in 19 districts	August 19	MGNREGS Society	ICRG to facilitate
7	Exploring scientific data for making annual plans of MGNREGS in climate change perspective	Aug- Oct 19	MGNREGS Society	ICRG to facilitate
8	Training on climate resilient planning and designs for MGNREGS at state and district level	Aug- Oct 19	MGNREGS Society	ICRG to facilitate
9	Developing IEC on climate change and MGNREGS (ICRG will provide ideas)	Sept- Oct 19	MGNREGS Society and SIRD	ICRG to facilitate
10	Orientation of SIRD and linked institutions on climate change and incorporating climate change in development schemes	Aug- Nov 19	ICRG	SIRD
11	Workshop among district officials to discuss linking climate change with the flagship schemes of the Department	August 19	PR & DW Department	ICRG to facilitate Experts from outside may be invited
12	Plan for climate proofing rural housing	Aug- Nov 19	CCRC	Experts from outside may be invited
13	Orientation of OLM staff on climate smart livelihoods practices	Sept 19	OLM	ICRG to facilitate
14	Integrating climate change in the core livelihoods activities of OLM	Sept- Nov 19	OLM	ICRG to facilitate
15	Handing over the study reports, data, manuals, case studies and	July to Nov 19	ICRG	To concerned societies

Sl.	Actions	Tentative timeline	Responsibility	Remarks
	best practices that ICRG gained during the project			
16	Identify studies/research to be taken up to link climate change in other flagship schemes of the Department	Sept – Dec 19	CCRC	ICRG to facilitate
17	Plan to link the CCRC with Odisha Climate Change Cell	Sept onwards	CCRC	ICRG to facilitate
18	Prepare Disaster Management Plan for the Department	Every year	CCRC	
19	Review of progress and plan for FY 2020	February 20	CCRC	ICRG to facilitate

3. The way forward

In a meeting with the Director Special Projects, Government of Odisha (Minutes attached), the PR & DW Department has expressed 'in principle interest' in setting up the CCRC to link climate change in its flagship programme sectors especially livelihoods, drinking water, rural housing and MGNREGS. The formalities for setting up the CCRC are under discussion since there are multiple societies within the Departments like OLM, SIRD and MGNREGS Societies that will work directly work under the Cell. In the coming days, ICRG will facilitate another meeting with Principal Secretary and Director Special Projects to finalise the formalities for setting up the Cell.

The ICRG Team will thereafter focus on building the capacity of the CCRC on a continuous basis through trainings to OLM, MGNREGS and SIRD staff. All knowledge products generated by ICRG shall be handed over to CCRC to scale up the best strategies of ICRG and link climate change in its other schemes and programmes.

The team will work closely with SIRD and customise the training manuals in local language to ensure that trainings imparted by SIRD on climate change are effective. The Team will work with OLM staff, as well, to help in linking climate change with the core livelihoods components of OLM. Similarly, the Team will build the capacity of MGNREGS Society to ensure the LB for the year FY 2020-21 is done in line with climate change especially in the 19-high potential MGNREGS districts. The designs prepared under the ICRG programme for NRM works shall be discussed in detail for its wider use while taking similar works in the same blocks within ICRG districts.

The Team will assist the CCRC in gathering scientific data for preparing plans with a climate change perspective. It will help in identifying studies and research required for making scientific plans in 19 high potential districts. The Team will also facilitate linkages with experts and expert institutions to strengthen the CCRC in the long run.

By December 2019, the ICRG Team will devise a clear methodology for the CCRC to sustain in the long run and build its capacity to run as an independent entity to work on climate change within the Department.

4. Annexure 1. Minutes of the meeting with Director, Special Projects

Minutes of the meeting held on 23rd May, 2019 at Conference Hall of PR &DW Department under the chairmanship of Director, Special Projects to discuss the progress and exit strategy of ICRG Programme

A meeting under the chairmanship of Ms. Roopa Mishra, IAS Director, Special Projects was held in the Conference Hall of Panchayati Raj and Drinking Water Department with the ICRG State Team on 23rd May, 2019. The purpose of the meeting was to highlight the progress of ICRG Programme in Odisha and the exit plan by setting up of a Climate Change Resource Cell (CCRC) within the Department. The list of participants in the meeting is annexed.

At the outset, State Team Leader, ICRG Programme presented the overview of the ICRG programme and explained about its major components and intended outputs along with its institutional arrangement. The presentation provided an overview of the programmes which included training and capacity building, status of CRWs, studies, CRWs linkage to livelihoods (convergence with various line departments) and the technical tie ups with various institutions. The proposed exit strategy of the programme was presented as well. The exit plan focuses on setting up of a Climate Change Resource Cell within the Department of PR & DW which would carry forward the operations of the ICRG programme along with a larger scope of activities by aligning climate change agenda in various verticals of the department's operation.

After the Presentation, Additional Secretary, MGNREGS added few points on migration strategy for Western Odisha and extension of the programme to Bargarh District. Joint Director, SIRD also discussed on the training kit provided by ICRG team and their use in the trainings of SIRD.

The following key decisions were taken in the meeting:

- Director SP instructed to convene another meeting shortly to discuss on the following points;
    - MGNREGS toolkits developed by ICRG along with the benefits for planning and implementing climate proof MGNREGS NRM assets.
    - Technicalities and types of Climate Resilient Works and status of implementation of CRWs across the 5 intervention Districts.
    - Details of various strategies used in the ICRG Programme and feasibility of the replication of the same in 19 high potential MGNREGS Districts.
    - Feasibility and applicability of GIS based plan in the GPs of the Block.
    - Outcome of ICRG Programme in 5 Districts during intervention of ICRG Programme.