



## District Level Training-Workshop Report for Administrative Staff of MGNREGA in Bihar

Infrastructure for Climate Resilient Growth in India  
(ICRG) Programme



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### Infrastructure for Climate Resilient Growth in India (ICRG) Programme

Submitted By:



In association with



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### **ABBREVIATIONS AND ACRONYMS**

CRWs	Climate Resilient Works
DBT	Direct Benefit Transfer
ICRG	Infrastructure for Climate Resilient Growth
IEC	Information Education Communication
INRM	Integrated Natural Resource Management
IINRM	Inclusive Integrated Natural Resource Management
LB	Labour Budget
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
OVG	Other Vulnerable Groups
PMKSY	Pradhan Mantri Krishi Sichai Yojna
PO	Programme Officers
PRI	Panchayati Raj Institutions
PRS	Panchayat Rozgar Sahayak
Q&A	Question & Answers
SC/ST	Scheduled Caste / Scheduled Tribe
SHGs	Self Help Groups

## 1.0 NEED FOR CLIMATE CHANGE SENSITISATION TRAININGS OF MGNREGA DISTRICT AND BLOCK LEVEL ADMINISTRATIVE PERSONNEL

Bihar accounts for about 10 percent of the total flood affected area in the country. Lack of drainage of these floodwaters creates the situation of water logging<sup>1</sup> which leads to inefficient use of land, increase in soil salinity, and damage to existing livelihoods. Waterlogged lowlands, traditionally known as *chaur*s in Bihar, are the saucer-shaped, topographically low-lying areas where rainwater collects and accumulates due to inadequate drainage. Over time, encroachment or obstruction of the drainage channels cause a near collapse of this drainage system, thus compounding the problems created by floods. In comparison, the South Bihar area is considered drought prone and has a system of indigenous traditional irrigation system, *ahar-pyne* that used to form the backbone of the agricultural economy of the South Bihar plains.

The scoping study to inform Infrastructure for Climate Resilient Growth (ICRG) implementation identified following agro-climatic vulnerabilities:

- ☞ Old embankments that have fallen into disrepair;
- ☞ Obstructions to traditional drainage system;
- ☞ Skewed planning of new drainage systems with respect to catchment area;
- ☞ Siltation of drainage lines that cause water logging;
- ☞ Sharp diversion of drainage lines that acquire original track during flood conditions;
- ☞ Decay of centuries old traditional *ahar-pyne* irrigation systems;
- ☞ Integrated management of land, water and nutrients in the non-waterlogged, upland portion to enhance productivity.

In the light of recent evidence of climate change risks, these agro-climatic vulnerabilities of Bihar will only get aggravated. The aim of ICRG programme is to build capacity of technical and administrative functionaries of MGNREGA so as to build more climate resilient assets under schedule A & B works of MGNREGA. For this purpose, the ICRG team along with its local partners conducted sensitisation trainings of MGNREGA staff in the eight ICRG districts in the state.

## 2.0 PREPARATION PRIOR TO TRAININGS

Prior to trainings in each district, the ICRG state team studied district wise socio-economic profiles and climatic vulnerabilities and risks. It mapped the Natural Resource Management (NRM) works undertaken in the ICRG blocks against the total MGNREGA works in the state in last two years. It also looked at the convergence works taken under Pradhan Mantri Krishi Sichi Yojna (PMKSY) and also amongst other departments. The ICRG team also recorded traditional and local knowledge applied by the communities to cope. Based on extensive research, ICRG team experts prepared a training module to sensitise and build awareness of participants on climate change and resilience. Through participatory methods, the team highlighted the under-utilised potential of MGNREGA to build climate resilient works (CRWs) in a one-day workshop, followed by field visits. Refer **Annexure 7** for district-wise training dates and **annexure 10** for administrative training letter from the department.

<sup>1</sup> A soil / land is considered to be waterlogged when the water table rises to such an extent that the root zone becomes saturated, diffusion of air is curtailed and the amount of oxygen is reduced with increase in CO<sup>2</sup> partial pressure.

## 2.1 Objectives

- ☞ To orient the participants on the key concepts of climate change in global, national and local context and its linkages with MGNREGA;
- ☞ To sensitise the participants about creation of climate resilient infrastructure and technical design of assets through MGNREGA works;
- ☞ To orient district level administrative functionaries about the ICRG project and its objectives;
- ☞ To sensitise district level administrative functionaries about selection and planning of INRM (Integrated Natural Resource Management) works in their respective blocks;
- ☞ To acquaint and sensitise functionaries on possibilities of convergence with various schemes in the context of their different districts;
- ☞ To identify tools to increase the participation of women and OVGs (Other Vulnerable Groups) in the planning and implementation of MGNREGA and bring focus on building their climate resilience.

## 2.2 Learning Outcomes Expected

At the end of the training, the trainees will be able to:

- ☞ Understand key climate change related terminologies and concepts, and situate their local climatic patterns in this context;
- ☞ Associate shocks related to weather patterns experienced in the areas under their purview to climate change and also dissociate the ones which are due to other reasons;
- ☞ Become aware about the ICRG project and its objectives;
- ☞ Understand the need and importance of applying integrated NRM approach to works under Schedule A & B of MGNREGA to build climate change resilience;
- ☞ Use local solutions and convergence based approaches for INRM to select and have better technical designs to make MGNREGA infrastructure more durable and sustainable in their respective blocks;
- ☞ Identify the methods/tools to bring climate change awareness amongst women and OVGs, and increase their participation in building climate resilient works through MGNREGA.

**Period of Training:** January-February 2017

**Districts:** Banka, Begusarai, Katihar, Madhubani, Nalanda, Muzaffarpur, Paschim Champaran, Gaya

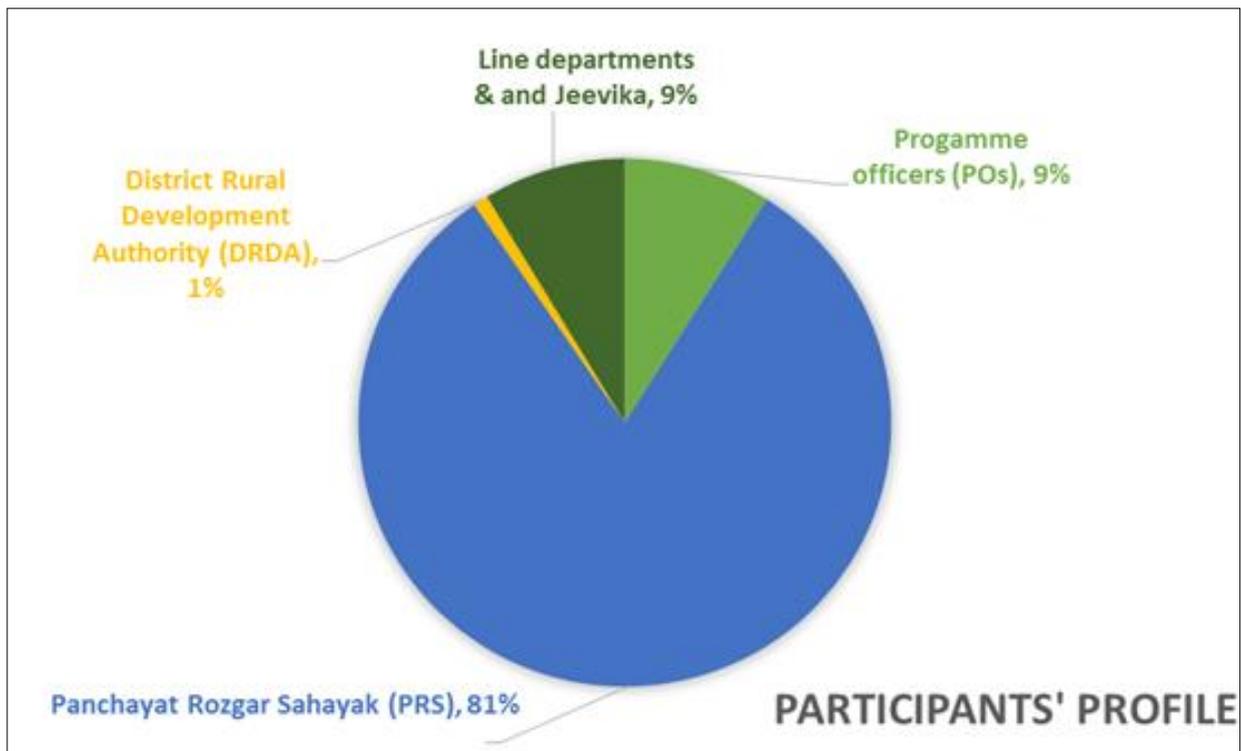
## 2.3 Profile of the Trainers

ICRG Team – Bihar	
Subhendra Sanyal	Institutional Expert
Dr. Krishan Murari	NRM Expert

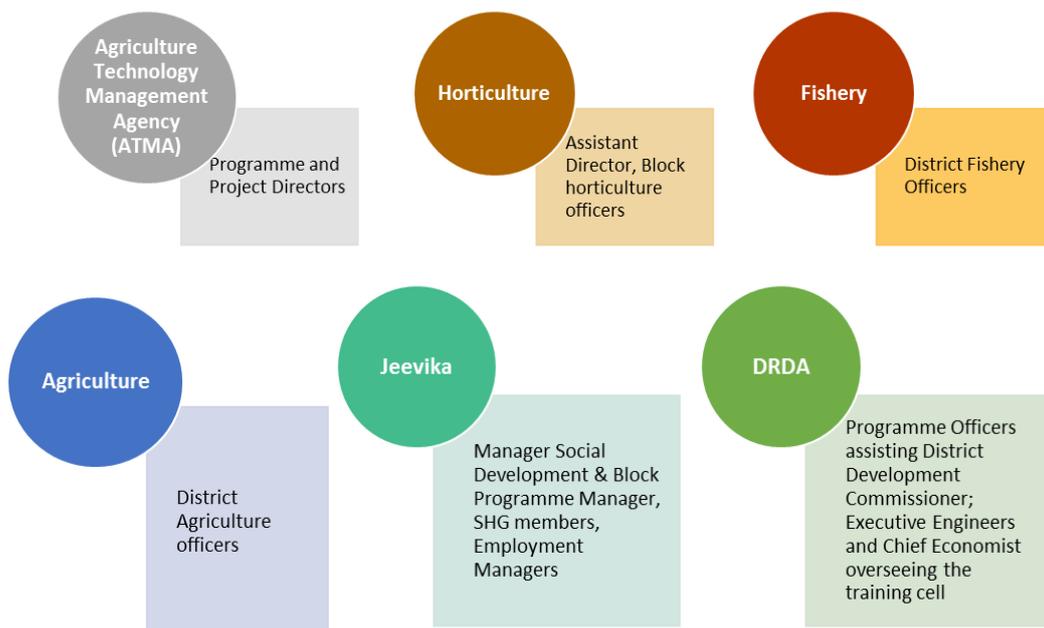
Navneet Naik	Climate Resilient Expert
Arvind Kumar	Climate Resilient Expert
Himanshu Shekhar	Research Associate

## 2.4 Profile of the Trainees

The ICRG team sensitised 335 persons, out of which 305 were MGNREGA administrative personnel and the remaining were key line departments personnel.



Line department representatives included personnel from agriculture, fishery and horticulture departments; Agriculture Technology Management Agency and *Jeevika* (illustrated below).



Furthermore, of the total 335 participants, 15 were women trainees (4%). The following figure presents district wise participation of women.



### 3.0 SESSIONS, METHODOLOGY, RESPONSE AND PROCEEDINGS

The trainings were conducted over four sessions. **Annexure 1** includes the agenda and session details.

**Session I** - The introductory session informed the trainees about the ICRG objectives through a presentation, kind of technical support it will provide to the participants and the scope of implementation across the three states in India – Bihar, Odisha and Chhattisgarh. In Bihar, 35 blocks from eight districts have been selected for ICRG.

The participants then assessed the local climatic stresses and potential of INRM works through a series of group discussions and presented discussion summaries through charts. They presented the current state and durability of NRM works and their overall effect on environment in the light of climate stresses such as water insecurity for households and crops. Currently, the schedule A and B works are not durable and have less productivity in terms of addressing issues such as low water table, poor soil health or soil erosion, etc. which reduces their impact on addressing rural poverty. IINRM approach will allow community owned, community operated and convergence work models along with other line departments selected basis the local climatic conditions which will have more impact. Knowledge



sharing and communication with women, marginal and other vulnerable groups is also critical to select the right approach. The eight ICRG districts have varied climatic stresses and topography - hilly and plain areas, recurrent floods and drought prone zones, incidence of rampant deforestation which establish the need to have durable CRWs which will be more sustainable and will enable diversification of livelihood options for the communities. Please refer **annexure 8** for district profiles of ICRG districts.

**Session II** - The second session assessed and compared blocks within each district to highlight the typology of NRM works that have the potential to address local climate stresses. The assessment parameters included basic geographical data, population figures segregated by women, Scheduled Castes and Tribes, selection percentage of NRM works out of total works and worker participation figures. These data and parameters were validated in a participatory process whereby the Panchayat Rozgar Sahayaks (PRS) presented assessment about their blocks and the respective Programme Officer (POs) responded in order to validate the assessment.

The assessment process was led by the POs and broadly interrogated three aspects – typology and rationale for choosing certain specific NRM works in the blocks; reasons for NRM works demanded by the community but not taken up and the steps that could be taken to ensure participation of more women and OVGs. In most districts, plantation, check dam and de-silting of *ahar-pyne* emerged as the preferred works by the communities. The preferences of specific works were attributed to local needs and awareness about the benefits of the works, community support, availability of labour near the worksites and irrigational benefits of the works. Pond construction and soil works emerged as the works that faced roadblocks due to multiple reasons – increase in the price of land, hard soil, lack of community participation. To enhance participation of women and OVGs, the trainees emphasized on raising awareness, association with the SHGs, taking up women-friendly works, changing community perception and setting examples by demonstrating good works that have significant women and OVG participation. The details of NRM works preferred in each blocks and districts are included in **Annexure 2**. The discussion highlighted the preference for works that have water and irrigation benefits, improve soil quality, provide relief in times of floods & droughts. The sites are mostly selected based on proximity to village population to ensure labour availability. They key concerns raised were more participation of community & PRI in selection and implementation of works.

Increase in the price of land, inappropriate site selection especially where the soil is fertile, distance of site from nearby villages, hard soil which creates difficult work conditions act as barriers in taking works up. Plantation works are abandoned because of less protection provided to them which reduces their chances of survival and future returns. The cost of provisioning for plants is inadequate, which does not allow procurement of good quality plants. The insufficient availability of public lands, issue of encroachment and differences amongst community members were also some of the reasons shared by the participants for abandonment of works. Further, some blocks are flood prone and there is inadequate technical support in design, selection and construction of works, the gradient and labour-material ratio is not maintained which affects construction and has to be abandoned sometimes.

Finally, to make the works selection and implementation more gender and OVG sensitive, the trainees suggested initiating more awareness programmes in OVG *tola*, *gram sabha*, *ward sabha* and village fairs. Integration of workers and schemes at panchayat level planning and door to door visits

by PRS will encourage women (involving PRI members) and OVG to participate. Taking up works near OVG *tolas*, and designing and demonstrating works that are both gender and OVG sensitive and responsive was recommended. One of the key themes that emerged in this particular discussion was the need to develop a sense of ownership and change community perception on gender and OVG participation. Reduction of works such as hard soil excavation and ensuring suitable works to women according to their demands is important. Finally, suggestions included more awareness raising activities about government schemes, providing women with direct and focused information about these schemes, camping in Mahadalit *tolas* and making them aware of correct information about government schemes. If more works were taken up on SC/ST lands that will also ensure higher participation of OVGs.

**Session III** - In the third session, the ICRG team explained the issue of Climate Change in the global, national and local context to the trainees through a lecture followed by a Q&A round. The lecture drew on participants' personal and professional experiences to adverse climatic exposure and the trainers drew possible linkages with the various schemes of line department. The main discussion points included:

- ☺ Effect of climate change in local production system and agriculture;
- ☺ Dependence of agriculture on predictable climatic conditions and rainfall which has been significantly affected due to erratic scenarios;
- ☺ Interventions and innovative techniques to respond to declining food production through convergence and government schemes, for e.g. vermi-composting;
- ☺ Alignment of several schemes under the agriculture, horticulture and fisheries line departments on structures constructed under MGNREGA. Under PMKSY, there is DBT (Direct Benefit Transfer) of subsidies for sprinkler, drip irrigation etc. which can be used for livelihoods generation.

The participants were presented the INRM approach and design approaches that will make the NRM structures sturdier and more productive. Key suggestions shared with the trainees by ICRG NRM expert on earthen dams, pond, plantation, land development and *ahar-pyne* are detailed in **Annexure 3**.

**Session IV** - The training conclusion with a session on group exercise on identifying possible labour budget (LB) for each block, suitable NRM works and various block specific tools that can be employed by the field functionaries to involve more women and OVGs. This session contributed to developing trainees' understanding of the need to prioritise NRM works and its current status as percentage of total budgets. It also stimulated their thought processes on methods for more inclusive participation, especially of women such as selection of women leaders with the help of SHGs, running awareness programmes amongst communities, motivating and involving panchayat members. Going forward the ICRG programme will try to include some of these suggestions where applicable. **Annexure 4** presents key points from this discussion. **Annexure 9** contains photos from the various sessions conducted in the districts.

**Field Visits for Identification of Demonstration Sites** - After the one-day training with the district and panchayat level administrative functionaries, the ICRG team visited the likely demonstration work sites on the following day, recommended by POs. District wise details of these field visits and identified works is detailed in **Annexure 5**. Refer **Annexure 11** for a summary of field visit report.

## 4.0 TRAINING ASSESSMENT

The following section is based on participants' feedback forms and collective reflections of the trainers and the trainees:

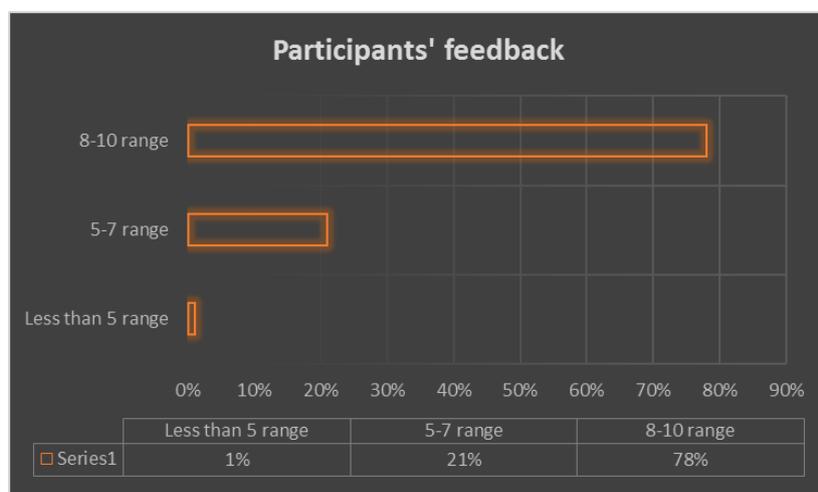
- a. **Awareness on Climate Change:** The topics covered in the training included climate change demonstration, effect and mitigation measures from global to local context. The trainers used participatory approaches and facilitated discussions that built on the experiences of the participants. They used local dialects and terms which made the training more effective and accessible to the participants. This ensured that the participants could relate and connect to the local climate change context, understand adaptation needs and learn from each other's suggestions on adaptation measures.
- b. **Developing MGNREGA works as climate resilient assets for the communities:** The ICRG team experts shared simple structural and design changes that can be applied to MGNREGA NRM works to make them sturdier and sustainable and with greater impact on coping and building resilience of the communities who depend on them during times of climate uncertainty.
- c. **Identification of tools for participation of Women and OVGs:** The trainings stimulated discussions on gender mainstreaming beyond the scheme guidelines. A variety of suggestions and tools on facilitating their inclusion in the implementation process were captured.
- d. **Build knowledge platform around convergence and local solutions:** The participants in the training programme came from both MGNREGA and line departments. In the light of recent evidence on climate change risks, the need for convergence models for maximum benefits gained prominence in the group discussions. Participants from agriculture, fishery, horticulture departments and *Jeevika* shared their opinions and presented schemes with which convergence could be deliberated. Various provisions for marginal farmers under these departments were also discussed which could be used as knowledge platform in the longer run to ensure water and livelihood security.
- e. **Sharing of knowledge and good practices:** The cross learning amongst members from different departments formed important part of the training where participants shared and learned from each other's experience for a common goal of developing durable assets under MGNREGA. Going forward, a separate WhatsApp group was formed for ICRG project where participants can share and learn from each other.
- f. **Association and disassociation of weather-related patterns to climate change:** During the final training feedback, the ICRG team encouraged the trainees to relate the freshly acquired knowledge of climate change to the changes observed in the weather patterns in their districts. Gaya and Nalanda districts' participants reported an increase in the frequency of unseasonal rainfall, frequency in droughts and floods in their districts as impacts of climate change. The participants from Begusarai, Banka, Paschim Champaran reported diminishing agricultural productivity. Banka district also reported decrease in the water level in the ponds and an increase in mortality of trees in recent years. Almost all the districts' participants observed fall in the water table in recent years as a major impact of climate change.

- g. **Application of climate lens to MGNREGA-NRM works:** Participants were encouraged to employ climate lens to MGNREGA-NRM works such as plantation and *pynes*. Whilst participants from Nalanda, Paschim Champaran and Madhubani suggested connection of *pynes* structure to regulate irrigation water for longer duration; participants from Banka and Begusarai suggested detailed pre-planning before work and organic farming methods.

## 5.0 PARTICIPANTS' EXPERIENCES

After every training, the participants were asked to rate the training on a scale of 1 to 10 based on the usefulness of the training, with 1 being least useful and 10 being most useful. The following figure illustrates that 78% participants (out of 229 feedback forms) rated the training between the range of 8-10. Only three participants rated the training below 5 (less than 1%), and 21% of the total participants rated it between 5-7 range.

**Annexure 6** contains district wise details of the participants' feedback.



Almost all districts reported that the training methods used in the sessions were participatory, and added to their existing knowledge of climate change related stresses. Participants reported that the training has motivated them to establish long term goals and their queries on climate stresses were explained in simple and lucid manner. Participants from all districts mentioned the need of conducting more such trainings, especially at the for the PRI staff as it will create more awareness at the planning level.

## 6.0 RECOMMENDATIONS FOR THE ICRG TEAM

The ICRG team benefited from the number of valuable suggestions and professional expertise shared by the trainees:

- a. The trainings will be more productive if the approach is tailored as per the participants' level of expertise and awareness on climate change as they came from various administrative levels (panchayat, block and district) and have specific skill-sets and responsibilities.
- b. Solutions to climate change stresses provided in the trainings and material can include more local resources which are easily available.
- c. Use of more IEC materials apart from the panchayat calendar and Climate Resilient Works posters will add more value to the trainings – such as reading materials on climate change

stresses and audio-video tool which could be specifically positioned against the local bio-physical, socio-economic and climate related stresses experienced by the trainees and the communities they work with. This will elicit more participation by the trainees.

- d. If trainings are done at the PRI level, then more women and OVGs from SHGs such as *Jeevika* should be invited to raise awareness on climate change.

## 7.0 FOLLOW UP BY THE STATE ICRG TEAM

Based on the recommendations of the trainees, the Bihar state team has taken following actions for future trainings within the state:

- a. **Local PRI level trainings planned:** In the training planned for the technical staff in April and May 2017 by the state team, the second day has trainings for PRI staff in the block selected for demonstration sites where the local PRI representatives, ward members, panchayat level MGNREGA functionaries and Village organizations/ SHG groups are being trained on climate change concepts. A short-manual incorporating local knowledge and solutions has been prepared for these trainings.
- b. **Reading materials and audio-video tools:** While there has been ambience restriction to use audio-video tools for the training, it is being planned for the future trainings by the team. Meanwhile more reading materials have been distributed to the participants especially the POs for reference and reading as recommended above.
- c. **More use of IEC materials:** The state team has shared the CRW design posters with the state department for printing and have also increased the frequency of its use in their trainings also. Going forward more such IEC materials will be developed and used in the trainings.

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Follow-up of the training is envisioned through field visits to assess how trainees have incorporated climate resilient principles in the MGNREGA structures. The analysis and suggestions made will also be examined for inputs into various ICRG program activities related, inter alia to the CRW process, making local decision making process more inclusive and glean issues that may need to be reflected to the government for review and intervention in the course of MGNREGA implementation.