



**EXPANDING
AGRICULTURE-BASED
LIVELIHOOD
OPPORTUNITIES THROUGH
MAHATMA GANDHI NREGA**

An Exploration

As a federally owned enterprise, GIZ supports the German Government in achieving its objectives in the field of international cooperation for sustainable development.

Published by:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Registered offices:

Bonn and Eschborn, Germany

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Caps and Shells Creatives Pvt. Ltd.

As at

July 2022

New Delhi, India

GIZ is responsible for the content of this publication.

On behalf of the

German Federal Ministry for Economic Cooperation and Development (BMZ)

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List of Abbreviations

| | |
|----------|--|
| ADP | Aspirational District Programme |
| AFDP | Accelerated Fodder Development Programme |
| AMIF | Agri-Market Infrastructure Fund |
| ASA | Action For Social Advancement |
| ATMA | Agriculture Technology Management Agency |
| BDO | Block Development Officer |
| BHY | Birsa Harit Yojana |
| BMZ | German Federal Ministry for Economic Cooperation and Development |
| CARD | Community Action for Rural Development |
| CBBO | Cluster Based Business Organisations |
| CBO | Cluster Based Organisations |
| CCT | Continuous Contour Trenches |
| CDA | Cluster Development Agency |
| CDB | Coconut Development Board |
| CDP | Crop Diversification Programme |
| CEO | Chief Executive Officer |
| CFC | Common Facility Centres |
| CFP | Cluster Facilitation Project |
| CFT | Cluster Facilitation Teams |
| CInI | Collectives for Integrated Livelihood Initiatives |
| CIH | Central Institute for Horticulture |
| CLF | Cluster Level Federation |
| CM | Chief Minister |
| CSR | Corporate Social Responsibility |
| CTA | Consultant Technical Advisors |
| DAC&FW | Department of Agriculture, Cooperation & Farmers Welfare |
| DAP | District Agriculture Plans |
| DAY-NRLM | Deendayal Antyodaya Yojana-National Rural Livelihoods Mission |
| DMFT | District Mineral Funds |
| DPC | District Programme Coordinator |
| DPR | Detailed Project Report |
| ECNRM | Environment, Climate Change and Natural Resource Management |
| FES | Foundation for Ecological Security |
| FGD | Focused Group Discussion |
| FI | Financial Institutions |
| FIG | Farmers Interest Group |
| FPC | Farmers Producer Company |
| FPO | Farmers Producer Organisation |
| FY | Financial Year |
| GDS | Grameen Development Services |
| GIS | Geographic Information System |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH |
| GOI | Government of India |
| GP | Gram Panchayat |
| GW | Giga Watt |
| HCDP | Horticulture Cluster Development Programme |

| | |
|---------|---|
| HH | Household |
| HMNEH | Horticulture Mission for North East & Himalayan States |
| HR | Human Resource |
| ICAR | Indian Council for Agriculture Research |
| ICT | information and communications technology |
| INR | Indian Rupees |
| INRM | Integrated Natural Resource Management |
| ISAC | Integrated Scheme on Agricultural Cooperation |
| ISACES | Integrated Scheme on Agriculture Census, Economics and Statistics |
| ISAM | Integrated Scheme on Agricultural Marketing |
| ITI | Industrial Training Institutes |
| JJH | Jal Jeevan Hariyali |
| JNK | Jan Nirman Kendra |
| JSLPS | Jharkhand State Rural Livelihood Promotion Society |
| KUSUM | Kisan Urja Suraksha evam Utthaan Mahabhiyan |
| KVIC | Khadi and Village Industries Commission |
| KVK | Krishi Vigyan Kendra |
| LSCD | Loose Stone Check Dam |
| MA | Market Aggregators |
| MB | Measurement Book |
| MFP | Minor Food Produces |
| MGNREGA | Mahatma Gandhi National Rural Employment Guarantee Act |
| MGNREGA | Mahatma Gandhi National Rural Employment Guarantee Scheme |
| MIDH | Mission for Integrated Development of Horticulture |
| MIS | Management Information System |
| MJSA | Mukhyamantri Jal Swavlamban Abhiyan |
| MJSY | Mukhyamantri Jal Swavlamban Yojana |
| MNRE | Ministry of New and Renewable Energy |
| MoRD | Ministry of Rural Development |
| MP | Madhya Pradesh |
| MSME | Micro Small and Medium Enterprises |
| MW | Megawatt |
| NABARD | National Bank for Rural Development |
| NADEP | Narayan Deorao Pandharipande |
| NAPCC | National Action Plan on Climate Change |
| NBJK | Nav Bharat jagriti Kendra |
| NBM | National Bamboo Mission |
| NCDC | National Cooperative Development Corporation |
| NE | North East |
| NEEDS | Nurture Employability & Economic Development Society |
| NFSM | National Food Security Mission |
| NGO | Non Governmental Organisation |
| NHB | National Horticulture Board |
| NHM | National Horticulture Mission |
| NMSA | National Mission for Sustainable Agriculture |
| NPMA | National Project Management Agency |

| | |
|--------|---|
| NRLM | National Rural Livelihood Mission |
| NRM | Natural Resource Management |
| NTFP | Non Timber Forest Produce |
| PEDO | Jan Shiksha Evam Vikas Sangathan/People's Education & Development Society |
| PHED | Public Health Engineering Department |
| PIA | Project Implementation Agency |
| PM | Pradhan Mantri |
| PMKSY | Pradhan Mantri Krishi Sinchai Yojana |
| PPP | Public Private Partnership |
| PRADAN | Professional Assistance for Development Action |
| PRI | Panchayati Raj Institution |
| PRODIP | Product Development Design Intervention and Packaging |
| RD | Rural Development |
| RDD | Rural Development Department |
| RGAVP | Rajasthan Grameen Aajeevika Vikas Parishad |
| RISC | Rural Industries Service Centre |
| RKVY | Rashtriya Krishi Vikas Yojana |
| SAP | State Agriculture Plan |
| SCT | Staggered Contour Trenches |
| SDM | Sub Divisional Magistrate |
| SFAC | Small Farmers Agri-business Consortium |
| SFURTI | Scheme of Fund for Regeneration of Traditional Industries |
| SHG | Self Help Group |
| SMAE | Submission on Agriculture Extension |
| SMAM | Sub-Mission on Agricultural Mechanisation |
| SMPPQ | Sub-Mission on Plant Protection and Plant Quarantine |
| SMSP | Sub-Mission on Seeds and Planting Material |
| SPM | State Project Manager |
| SPV | Special Purpose Vehicle |
| SRC | State Resource Cell |
| SRLM | State Rural Livelihood Mission |
| TRIF | Transforming Rural India Foundation |
| TRIFED | Tribal Cooperative Marketing Development Federation |
| UNDP | United Nations Development Programme |
| UT | Union Territory |
| VDVK | Van Dhan Vikas Kendras |
| VO | Village Organisation |

Executive Summary

Enhancing Rural Resilience through Appropriate Development Actions (ERADA) is an Indo-German development cooperation project commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, India is implementing the project in partnership with Ministry of Rural Development (MoRD), Government of India (GoI). It also supports the *Corona Immediate Programme* of the BMZ. The objective of the ERADA project is to strengthen the livelihoods of vulnerable households based on locally available natural resources and development support programmes, especially the Mahatma Gandhi National Rural Employment Guarantee Act (*Mahatma Gandhi NREGA*). ERADA is operational at a national level and in eight blocks across eight aspirational districts in four Indian states namely Bihar, Jharkhand, Madhya Pradesh and Rajasthan.

The study report titled as 'Expanding Agriculture-Based Livelihoods Opportunities through *Mahatma Gandhi NREGA*: An Exploration' is conducted to map the existing livelihood activities from the current list of 262 permissible activities under the *Mahatma Gandhi NREGA* and other related livelihood activities along with relevant departments and schemes that can be applied in the four project states. This report is part of a series of five thematic areas study reports covering livestock, non-farm, agriculture, aquaculture; and trees and forest-based livelihood activities under *Mahatma Gandhi NREGA*. The motto is to 'not reinvent the wheel', and build on the existing successful thematic livelihood based activities with a potential to replicate and upscale at larger level in five thematic areas.

This study report involved analysis of secondary information pertaining to the *Mahatma Gandhi NREGA* and other central and state government programmes pertaining to agriculture. Case studies from the four project states of ERADA illustrating diverse set of livelihood activities undertaken through convergence of the *Mahatma Gandhi NREGA* and one or more livelihood schemes of the state/central government are documented.

The *Mahatma Gandhi NREGA* came into force on 02 February 2006 and within a short period of time, it led to positive outcomes of employment generation and beyond. There are broadly four categories of works permitted under the programme:

Category A- Public works relating to natural resources management

Category B: Individual assets for vulnerable sections

Category C: Common infrastructure for Deendayal Upadhyay –National Rural Livelihoods Mission (DAY-NRLM) compliant Self-Help Groups (SHGs)

Category D: Rural infrastructure

Of the 262 types of works that can be undertaken through the *Mahatma Gandhi NREGS* under either of the four categories (as applicable), according to a classification published by the Department of Rural Development of the Ministry of Rural Development (MoRD), nearly 70% activities contribute to the promotion of Natural Resource Management (NRM) and/or agriculture and allied activities.

In terms of actual expenditure of the India, at the national level, two-third of the expenditure under the *Mahatma Gandhi NREGA* is on natural resource management and/or agriculture and allied activities, which is also the case in two of the ERADA states-Madhya Pradesh and Rajasthan. Jharkhand over the past few years has spent more than 90% funds on agriculture and allied activities. Comparing the growth of total expenditure under the programme of all.

India and the ERADA states reveals that a significant increase took place in the year the pandemic set in i.e., 2020-21 over the previous year i.e., 2019-20. While at the national level, total expenditure increased by **63%**, it increased by **46%** in Rajasthan, **85%** in Jharkhand and Madhya Pradesh and **90%** in Bihar.

As the Government of India focused on the *Mahatma Gandhi NREGA* to counter the effect of lost wage labour due to migration and increased allocation was made, the same is reflected in the massive jump in 2020-21.

Realising the potential of the programme beyond employment generation as well, focus on convergence of the programme with existing government schemes started being explored by the policy makers. In the four ERADA States, there are several successful examples of sustainable livelihoods creation and/or enhancement through the convergence of the *Mahatma Gandhi NREGA* and one or more other government programmes/schemes. Horticulture is the major category across all states wherein convergence of the *Mahatma Gandhi NREGA* and other government programmes/departments is seen. This has created visible impact in terms of enhancing income of farmers substantially and also resulted in reduced migration. Within horticulture convergence, the programme's funds have been used for pit digging, farm pond, creation/repair of wells, water harvesting structures. Horticulture plants and trainings of farmers have been done from other departments such as horticulture and *Krisshi Vigyan Kendras (KVKs)*. KVK with Agricultural Technology Management Agency (ATMA¹) programmes are further converged with the beneficiaries of irrigation works by providing them high quality seeds, fertilisers and other farm equipments (spray pumps). Such convergence has been largely facilitated by Non-Government Organisations (NGOs) which coordinates separately with different departments at the local level for mobilising such benefits for farmers who got the support under the individual works of the programme. In Rajasthan and Jharkhand, through a special partnership between State Rural Livelihood Mission (SRLM) and the *Mahatma Gandhi NREGA*, the state government gave a push by supporting the cost of local resource persons (*Sakhis*) and technical personnel who have helped in documentation and estimate preparation of works for SHG members under the individual work category. With the asset creation enabled through the *Mahatma Gandhi NREGA* programme, loans available from SHGs and training support from SRLM livelihood programmes, the SHG members were slowly able to improve their livelihoods by growing improved crops and vegetables.

Emerging national priorities in agriculture are focused on promoting innovations in agriculture, promoting organic and natural farming, integrated farming cluster approach and promotion of Farmer Producer Organisations (FPOs). In terms of state specific focus, ERADA may consider the national priorities and the state specific opportunities as demonstrated in the case studies illustrated in the report. The Integrated Farming Cluster could be a uniform strategy leveraging *Mahatma Gandhi NREGA*.

In Jharkhand, a combination of irrigation access and horticulture development with integration of livestock (fisheries or goat) based schemes can be explored.

In Madhya Pradesh, along with horticulture, cluster development of pulses with natural farming approach can also be piloted.

In Bihar, the landholdings are small but water availability is good, so clusters with focus on aggregation of maize or pulses and value addition/processing through FPOs could be considered.

In Rajasthan, revival of existing irrigation sources along with promotion of clusters of pulses with goat or dairy as the integrated component could help achieve significant and sustainable incomes for smallholders.

¹ATMA is a society of key stakeholders involved in agricultural activities for sustainable agricultural development in the district. It is a focal point for integrating Research and Extension activities and decentralising day to day management of the public Agricultural Technology System (ATS)

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Background, Study Objective and Methodology

I. Background

Project ERADA

Enhancing Rural Resilience through Appropriate Development Actions (ERADA) is an Indo-German development partnership project commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) in partnership with the Ministry of Rural Development (MoRD), Government of India (GOI). ERADA is operational at a national level and in eight blocks across eight aspirational districts in four Indian states namely Bihar, Jharkhand, Madhya Pradesh and Rajasthan.

Project Objective

The objective of ERADA is to strengthen the livelihoods of vulnerable households based on locally available natural resources and development support programmes.

Project approach

The project will provide technical support in improving the livelihood conditions of vulnerable communities especially women, youth, migrant households and disadvantaged ethnic groups to reduce their dependence on labour migration, so that they are better positioned for upcoming pandemics and other crises. This includes digital and institutional infrastructure measures that improve the natural resource base to be climate change resilient, as well as agroecological approaches that make the use of the natural resource base more resilient through adapted cultural techniques and varieties. The project will strengthen the convergence of different government support programmes for the conservation and sustainable management of the natural resource base augmenting sustainable livelihoods and strengthening rural resilience.

The project works towards three outputs:

1. Improving wage work potential of vulnerable households and enhancing the natural resource base.
2. Long-term green livelihood development, in convergence with the National Rural Livelihood Mission (NRLM) and other relevant national and state programmes.
3. Improving convergence and strengthening of multi-stakeholder platforms for providing better access to vulnerable households.

II. Study Objective

The objective of the study is to map all the existing livelihood activities under the agriculture production system from the current list of 262 enlisted activities under *Mahatma Gandhi NREGA* and the activities which have the potential of creating livelihoods in rural areas. The mapping also covers the livelihood generating activities under other related departments and schemes from the four project states that can be applied in the ERADA project context. Hence, contributing towards not re-inventing the wheel, but also to build on the existing tried and tested models and use to further scale up at larger level this not reinventing the wheel.

Centre for microFinance (CmF), Jaipur supported the project to undertake the study 'Expanding Agriculture livelihood Opportunities through *Mahatma Gandhi NREGA*'. The assignment is focused on:

- Mapping the livelihood activities under *Mahatma Gandhi NREGA* which contribute to agriculture.
- Understanding current examples of *Mahatma Gandhi NREGA* and other department scheme convergence in the ERADA states of Rajasthan, Madhya Pradesh, Bihar and Jharkhand and documenting the process and modalities of such convergence experiences/examples.
- Recommending examples of livelihood and employment generation models including those which demonstrate integrated value chain approach which can be replicated in ERADA states through fund leverage from *Mahatma Gandhi NREGA* and convergence with other government schemes.
- Documenting the learnings and critical challenges faced by stakeholders in *Mahatma Gandhi NREGA* and other department/scheme convergence.
- Recommendations for the ERADA project, in light of the livelihood activities mapped and the examples of successful convergence for replication and scale up.

III. Methodology

The following methodology was adopted for conducting the study:

1. Stakeholder mapping and interviews/discussions:

Through review of different available reports of government departments and select discussions, a list of stakeholders involved in the *Mahatma Gandhi NREGA* was compiled across all the four states in the government, non-government and community institutions space who are involved in agriculture and agriculture based livelihood activities and programmes.

Discussions were held with the three sets of stakeholders as given below:

- **Government officials engaged in Mahatma Gandhi NREGA implementation and other government departments –**
 - a. Chief Engineer, Executive Engineer in *Mahatma Gandhi NREGA* (Rajasthan)
 - b. State Project Manager-Convergence, Rajasthan Grameen Aajeevika Vikas Parishad (RGAVP)
 - c. State Coordinator Convergence, Jharkhand State Livelihood Promotion Society (JSLPS)
 - d. Rural Development Department officials in *Mahatma Gandhi NREGA* Convergence Cell, Jharkhand
 - e. State Consultant, Rural Development Department, Bihar
 - f. District Project Managers of respective State Rural Livelihood Missions in the four states
 - g. Sarpanch/Gram Sevaks of different villages from where case studies have been documented
 - h. ATMA, KVK, Watershed, Forest and Tribal development department district level officials.
- **Non-Government Organisations (NGOs)** which have implemented the *Mahatma Gandhi NREGA*-Cluster Facilitation Team (CFT) and other grassroots organisations working in rural livelihoods across the four states like Professional Assistance for Development Action (PRADAN), Samarthan, Centre for Advanced Research and Development (CARD), Collectives for Integrated Livelihood Initiatives (CInI)-Tata Trusts, Transforming Rural India Foundation (TRIF), United Nations Development Programme (UNDP), Foundation for Ecological Security (FES), Seva Mandir, People's Education and Development Organisation (PEDO), Ibtada, Jan Nirman Kendra (JNK), Grameen Development Services (GDS), Navbharat Jagrikti Kendra (NBJK), etc.
- **Community:** Leaders of some Cluster Level Federations (CLFs) in Rajasthan and Jharkhand wherein the NRLM and *Mahatma Gandhi NREGA* have implemented convergence programmes and individual beneficiaries across four states whose case studies are documented.

2. Review of secondary literature and data:

- The *Mahatma Gandhi NREGA* Management Information System (MIS) data available in the public domain of the four ERADA states was reviewed to understand the status of implementation and trends vis-à-vis agriculture and NRM activities.

- Review of documents and reports pertaining to *Mahatma Gandhi NREGA* implementation and convergence – research studies, government circulars, minutes of various coordination committee meetings.

Annual reports and other published reports of Ministry of Rural Development, Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY- NRLM), National Bank for Rural Development (NABARD), Department of Agriculture, Water Resources and Tribal Development Department.

3. **Documentation of case studies of livelihood models created with Mahatma Gandhi NREGA and other department convergence:** With support of NGOs and government officials contacted and interviewed across the four ERADA states for the documentation of the livelihood models created.

The case studies in the report are illustrated with an objective of capturing a diverse set of convergence and at the same time aligning with the respective state government priorities) and the relevance for scaling up under ERADA in the four project states.

4. **Recommendations on potential agriculture related interventions in ERADA:** Recommendations are given based on the responses received from the beneficiaries who have benefitted from the convergence initiatives, and the views and suggestions of the stakeholders interviewed. Rich insights from both community and implementation side is considered for the project recommendations.

The objective of the study is to map all the existing livelihood activities under the agriculture production system from the current list of 262 enlisted activities under *Mahatma Gandhi NREGA* and the activities which have the potential of creating livelihoods in rural areas. The mapping also covers the livelihood generating activities under other related departments and schemes from the four project states that can be applied under the ERADA project.

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Overview of MGNREGA implementation in ERADA states

The *Mahatma Gandhi NREGA*, notified on 07 September 2005, marked a paradigm shift from the previous wage employment programmes with its entitlement focus that makes the government legally accountable for providing employment to those who demand it. The act aims at enhancing livelihood security of households in rural areas of the country by providing at least 100 of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work².

The objectives of the *Mahatma Gandhi NREGA* include:

- **To provide at least 100 days' work as per demand resulting in the creation of productive assets of prescribed quality and productivity**

- **To strengthen the livelihood resource base of the poor**

- **Proactively ensuring social inclusion**

- **To strengthen Panchayat Raj Institutions (PRIs)**

The act came into force on 2 February, 2006 and was implemented in a phased manner. In Phase I, it was introduced in 200 of the most backward districts of the country. In Phase II (2007-08), additional 130 districts were taken up and in Phase III beginning April 1, 2008, it was extended to the remaining rural districts of India as well. Thus, the *Mahatma Gandhi NREGA* covers the entire country with the exception of districts which has 100% urban population.

²<https://mgnrega.nic.in>

³Individual farmer's land can be developed under Mahatma Gandhi NREGS. Works creating individual assets shall be prioritised on land or homestead owned by households belonging to: Scheduled Castes, Scheduled Tribes, Nomadic tribes, Denotified tribes, Other families below the poverty line, Women-headed households, Physically handicapped headed households, Beneficiaries of land reforms, The beneficiaries under the Housing schemes, Beneficiaries under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (2 of 2007).

Work Categories under *Mahatma Gandhi NREGA*

There are broadly four categories of works under *Mahatma Gandhi NREGA*. These are detailed in the Schedule 1, Para 4 (1) of the Act:

1. Category A : Public Works Relating to Natural Resources Management

- Water conservation and water harvesting structures with a special focus on recharging groundwater including drinking water sources
- Watershed management works
- Micro and minor irrigation works – creation, renovation and maintenance
- Renovation of traditional water bodies
- Afforestation, tree plantation and horticulture in common and forest lands, road margins, canal bunds, tank foreshores and coastal belts
- Land development works in common land

2. Category B: Individual Assets for Vulnerable Sections (Only for Households in Paragraph 5 of Schedule I)³

- Improving productivity of lands of households through land development and by providing suitable infrastructure for irrigation
- Improving livelihoods through horticulture, sericulture, plantation, and farm forestry;
- Development of fallow or wastelands to bring it under cultivation
- Unskilled wage component in construction of houses sanctioned under the Awaas Yojana or such other State or Central Government Scheme;
- Creating infrastructure for promotion of livestock-shelters, troughs and sheds
- Creating infrastructure for promotion of fisheries-fish drying yards, storage facilities, and promotion of fisheries in seasonal water bodies on public land

3. Category C : Common Infrastructure for DAY -NRLM Compliant Self-Help groups

- Works for promoting agricultural productivity by creating durable infrastructure required for bio-fertilisers and post-harvest facilities
- Common workshops for livelihood activities of self-help groups.

4. Category D : Rural Infrastructure

- Rural sanitation related works
- Providing all-weather rural road connectivity including side drains and culverts
- Construction of play fields
- Works for improving disaster preparedness or restoration including flood control and protection works
- Construction of buildings for Gram Panchayats, women self-help groups' federations, cyclone shelters, anganwadi centres, village haats and crematoria
- Construction of Food Grain Storage Structures for implementing the provisions of The National Food Security Act 2013 (20 of 2013);
- Production of building material required for construction works under the Act.
- Maintenance of rural public assets created under the Act; and
- Any other work which may be notified by the Central Government in consultation with the State Government in this regard.

In total, there are 262 permissible works falling in the four categories put together. Of the 262 types of works that can be undertaken through *Mahatma Gandhi NREGA* under either of the four categories (as applicable), according to a classification published by the Rural Development Department of Ministry of Rural Development (MoRD)⁴, 182 contribute to the promotion of Natural Resource Management (NRM) and Agriculture and Allied Activities (including livestock and fisheries). 164 out of 262 works contribute to agriculture and allied interventions..

Majority of the agriculture and allied works also fall under the NRM category. However, a few works such as food grain storage structure construction and repair and maintenance of livestock shelters (poultry, goat, cattle, piggery) are non-NRM works but which contribute to agriculture and allied works. The detailed and exhaustive listing of works with respect to NRM and agriculture under *Mahatma Gandhi NREGA* allow for a large scope for asset creation to support agriculture activities.

National and state wise (in ERADA project states only) analysis of data available in the public domain on *Mahatma Gandhi NREGA* portal reveals that **NRM and agriculture and allied works constitute nearly two-third of the total expenditure in *Mahatma Gandhi NREGA* over the last five years.**

Table 1: *Mahatma Gandhi NREGA* MIS (accessed on 17th Feb 2022)

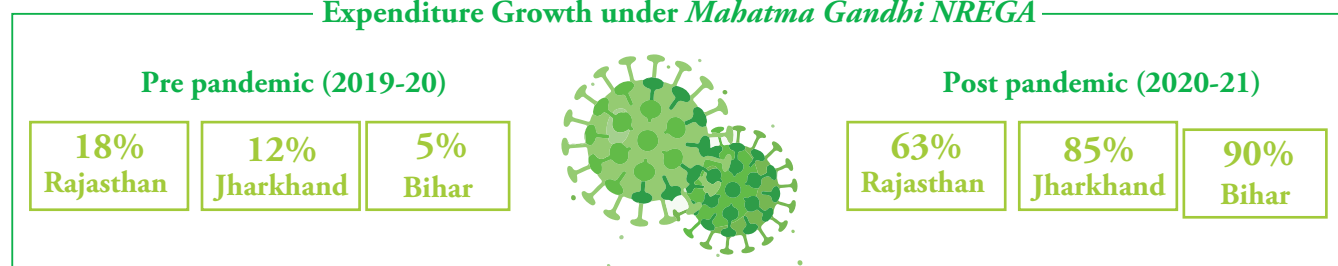
| INDIA | FY 21-22 | FY 20-21 | FY 19-20 | FY 18-19 | FY 17-18 |
|---|----------|----------|----------|----------|----------|
| Percentage of NRM Expenditure (Public + Individual) | 68.54 | 64.53 | 61.88 | 58.8 | 55.01 |
| Percentage (%) of Category B (individual HH) Works | 61.78 | 64.29 | 67.71 | 67.55 | 55.58 |
| Percentage (%) of Expenditure on Agriculture & Agri- Allied Works | 67.88 | 65.02 | 66.13 | 63.39 | 66.07 |
| Total Expenditure [In Crores rupees] | 94,501 | 1,11,422 | 68,265 | 69,618 | 63,649 |
| Percentage (%) Utilisation | 102.43 | 93.7 | 90.41 | 100.56 | 97.94 |
| RAJASTHAN | FY 21-22 | FY 20-21 | FY 19-20 | FY 18-19 | FY 17-18 |
| Percentage (%) of NRM Expenditure (Public + Individual) | 70.68 | 72.34 | 61.05 | 54 | 46.4 |
| Percentage (%) of Category B (individual HH) Works | 76 | 79.95 | 84.44 | 83.25 | 81.57 |
| Percentage (%) of on Agriculture & Agri- Allied Works | 68.34 | 72.02 | 64.73 | 64.63 | 63.76 |
| Total Exp [In Crores rupees] | 9,273 | 9,796 | 6,701 | 5,678 | 5,148 |
| Percentage (%) Utilisation | 97.55 | 95.81 | 92.03 | 93.06 | 97.6 |

⁴<https://megsres.nic.in/sites/default/files/mgnrega-permissible-work-list.pdf>

| JHARKHAND | FY 21-22 | FY 20-21 | FY 19-20 | FY 18-19 | FY 17-18 |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| Percentage (%) of NRM Expenditure(Public + Individual) | 72.94 | 77.06 | 66.26 | 60.26 | 51.78 |
| Percentage (%) of Category B (individual HH) Works | 71.77 | 68.93 | 78.54 | 84.14 | 80.18 |
| Percentage (%) of Expenditure on Agriculture & Agri- Allied Works | 94.1 | 93.38 | 97.43 | 94.47 | 92.09 |
| Total Expenditure [In Crores rupees] | 2,964 | 3,150 | 1,699 | 1,521 | 1,528 |
| Percentage (%) Utilisation | 130.06 | 89.83 | 118.34 | 98.92 | 98.16 |
| MADHYA PRADESH | FY 21-22 | FY 20-21 | FY 19-20 | FY 18-19 | FY 17-18 |
| Percentage (%) of NRM Expenditure(Public + Individual) | 68.53 | 69.32 | 66.31 | 48.17 | 41.44 |
| Percentage (%) of Category B (individual HH) Works | 68.86 | 70.28 | 72.05 | 78.77 | 75.47 |
| Percentage (%) of Expenditure on Agriculture & Agri- Allied Works | 76.57 | 70.74 | 71.62 | 72.34 | 58.86 |
| Total Expenditure [In Crores rupees] | 7,319 | 9,142 | 4,949 | 5,404 | 4,252 |
| Percentage (%) Utilisation | 104.12 | 90.42 | 94.26 | 104.31 | 87.96 |
| BIHAR | FY 21-22 | FY 20-21 | FY 19-20 | FY 18-19 | FY 17-18 |
| Percentage (%) of NRM Expenditure(Public + Individual) | 41.24 | 30.26 | 39.07 | 43.75 | 48.65 |
| Percentage (%) of Category B Works | 83.39 | 86.27 | 87.92 | 80.23 | 68.29 |
| Percentage (%) of Expenditure on Agriculture & Agri- Allied Works | 69.36 | 65.48 | 64.3 | 53.92 | 51.85 |
| Total Expenditure [In Crores rupees] | 5,741 | 6,425 | 3,370 | 3,204 | 2,929 |
| Percentage (%) Utilisation | 90.35 | 92.58 | 102.11 | 98.23 | 91.21 |

- The states of Rajasthan and Madhya Pradesh follow the national trend of nearly two third of expenditure in NRM and agriculture and allied activities
- In case of Bihar, the expenditure on NRM works is around 30-40% in the last few years. However, the percentage expenditure under agriculture and allied works is nearly two-thirds, implying that livestock related activities have also been prioritised.
- Jharkhand's expenditure on agriculture and allied activities are as high as 94-97%, thereby showing the clear preference of the state for agriculture related works in *Mahatma Gandhi NREGA*.
- **Pandemic and related trends:** Analysing the total expenditure on *Mahatma Gandhi NREGA* in FY 2018-19 versus 2019-20, a marginal dip of two percentage at the national level and around nine percent dip in Madhya Pradesh in 2019-20 (over 2018-19). Though the other three states namely Rajasthan, Jharkhand and Bihar registered a rise of 18%, 12% and 5% respectively in this period. However, the situation changed drastically with the onset of the pandemic which almost coincided with the beginning of the FY 2020-21. Comparing the growth of total expenditure under *Mahatma Gandhi NREGA* of all India and the project

Expenditure Growth under *Mahatma Gandhi NREGA*



states reveals that a significant increase took place in the year the pandemic set in i.e., 2020-21 over the previous year i.e., 2019-20. While at the all India level, total expenditure increased by 63%, it increased by 46% in Rajasthan, 85% in Jharkhand and Madhya Pradesh and 90% in Bihar. As the Government of India focused on *Mahatma Gandhi NREGA* to counter the effect of lost wage labour due to migration and increased allocation was made, the same is reflected in the massive jump.

Impact of *Mahatma Gandhi NREGA* on different aspects: Evidence from various researches and surveys ⁵

A number of studies have been conducted at the national level and in select states since the operationalisation of the *Mahatma Gandhi NREGA* in 2005 which have captured the impact of the programme.

Key findings of some of the published studies and surveys are summarised below:

Impact on increased livelihood opportunities, incomes from agriculture for the poor and the vulnerable and reduction in migration

- The socio-economic condition of the rural poor was strengthened through improving irrigation facilities for cultivation, employment opportunities in their own villages and saving opportunities for future requirements⁶
- *Mahatma Gandhi NREGA* significantly increased monthly per capita expenditure on food and non-food items. It improved food security by reducing the number of meals foregone. Further, participation in *Mahatma Gandhi NREGA* increased the probability of savings by households⁷
- The programme (*Mahatma Gandhi NREGA*) has been successful not only in increasing consumption levels of particularly vulnerable HHs but also in reducing these HHs' exposure to the risk of seasonal drops in consumption⁸
- In the short-term, participants' caloric and protein intakes increased, indicating that one of the most important immediate effects of *Mahatma Gandhi NREGA*

employment was an improvement in participants' food security and nutrition. Medium-term effects, on the other hand, seemed to centre around more generalised investments, particularly the accumulation of land ⁹

- *Mahatma Gandhi NREGA* works on the lands of individual beneficiaries had a significant impact on improving the quality of their lands, generating extra incomes, aiding small and marginal farmers' move to dual and multi-cropping and in creating alternative sources of livelihood for these households ¹⁰

Impact on Resource Sustainability – Water and Soil Health¹¹

- Through the dominance of water and land related *Mahatma Gandhi NREGA* works, *Mahatma Gandhi NREGA* has contributed to improved or sustained groundwater levels, increased water availability for irrigation, increased irrigated area and finally, improved drinking water availability for humans and livestock
- *Mahatma Gandhi NREGA* works have led to increase in Soil Organic Carbon (SOC) content in majority of the sample plots, leading to improved soil fertility and crop productivity across various works such as silt application, land, plantation and pasture development.
- *Mahatma Gandhi NREGA* land and water related works directly contributed to reduction in soil erosion and soil protection, potentially increasing soil and crop productivity
- Carbon sequestration is a co-benefit from *Mahatma Gandhi NREGA*. The total mean carbon sequestered at the national level, considering the cumulative number of natural resource based activities, for the year 2017–18 was estimated to be 102 Mt CO₂. The annual mean carbon sequestration is projected to increase to about 132 Mt CO₂ by 2020 and 249 Mt CO₂ by 2030. Drought proofing is one of the activities implemented under *Mahatma Gandhi NREGA* and it includes tree planting, relevant to achieving the NDC carbon sink target. The cumulative carbon sink created by drought proofing activities is projected to be 56 Mt CO₂ in 2020, 281 Mt CO₂ in 2025 and 561 Mt CO₂ in 2030¹²

⁵Mihir Shah & Neelakshi Mann & Varad Pande, 2015. "MGNREGA Sameeksha: An Anthology of Research Studies on the Mahatma Gandhi National Rural Employment Guarantee (2005) Act 2006â€”2012," Working Papers id:6749, eSocial Sciences & MGNREGA Sameeksha II: An Anthology of Research Studies (2012-2014), UNDP

⁶Nayak L.M and Barla P.K., (2012), People's Lives Before and After Implementation of MGNREGA – a case of tribal Rajasthan, International Journal of Rural Studies (IJRS), 2012, Vol. 19, No. 2

⁷Ravi, Shamika and Monika Engler (2015), Workfare as an Effective Way to Fight Poverty: A case of India's NREGS. World Development. 2015, vol. 67, issue C, 57-71

⁸Klonner, S. and C. Oldiges (2014), Employment Guarantee and its Welfare Effects in India. Mumbai: IGIDR, 'MGNRGA -Taking Stock and Looking Ahead Proceedings of the International Conference on MGNREGA', 26-28 March, 2014

⁹Liu, Yanyan and Klaus Deninger (2014), 'Welfare and Poverty Impacts: The Mahatma Gandhi National Rural Employment Guarantee Scheme', MGNREGA: Taking Stock and Looking Ahead. Proceedings of the International Conference on MGNREGA. Mumbai: IGIDR, 26-28 March, 2014.

¹⁰Sambodhi Research and Communications Pvt. Ltd. (2012-13), Impact Assessment of assets Created on Individual Land under Mahatma Gandhi National Rural Employment Guarantee Act (Survey conducted in 6 states of Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh)

¹¹Esteaves T., K.V. Rao, B. Sinha and S.S. Roy (2013), Environmental Benefits and Vulnerability Reduction Through Mahatma Gandhi NREGS: A Synthesis Report. Ministry of Rural Development, Government of India and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

¹²Ravindranath NH, Murthy IK (2021) Mitigation co-benefits of carbon sequestration from MGNREGA in India. PLoS ONE 16(5): e0251825. <https://doi.org/10.1371/journal.pone.0251825>

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Overview of Major Agriculture Development Focused Schemes

Agriculture is a state subject, so the State Governments are primarily responsible for the growth and development of agriculture sector and developing perspective plans for their respective states and ensuring effective implementation of the programmes/schemes. However, the Government of India supplements the efforts of the State Governments through various schemes/programmes which are implemented and overseen by the Ministry of Agriculture and Farmers' Welfare. Apart from this Ministry, certain programmes of other ministries namely Ministry of Rural Development, Ministry of Water Resources and Ministry of Cooperation, Ministry of Tribal Affairs etc. also contribute to agriculture development. Convergence with other

government schemes is envisaged as a strategy among all the departments now. Additionally, **across most government programmes, specific focus on implementation in Aspirational Districts through dedicated targets and review mechanisms is being placed. Some of these include formation of FPOs, CFP-MGNREA and Van Dhan Yojana.** Further, as the National Rural Livelihoods Mission (NRLM) has started operations in 6,788 blocks of 707 districts (out of total 6,968 blocks of 718 districts in the country) through 75.4 lakh SHGs (as on March 2022), the majority of the programmes are planning a convergence approach through the SHGs.

Some of the major schemes along with their objective and implementation mechanism are detailed below in Table 2:

| Scheme Name, Ministry and Funding Mechanism | Objective & Components | Implementation - Structure, Process and Agencies |
|---|---|---|
| <p>Rashtriya Krishi Vikas Yojana -(RKVY)</p> <p>Ministry/Agency: Ministry of Agriculture and Farmers' Welfare</p> <p>Funding pattern under the scheme is in the ratio of 60:40 by the Central and State Governments respectively. In the case of North Eastern and the Himalayan States, Central Assistance is provided in the ratio of 90:10 (Centre: State) and for UTs it is 100% central share. Funds are released in two installments based on the annual plans</p> | <p>It aims to make farming a remunerative economic activity by strengthening farmers' effort, risk mitigation and promoting agribusiness entrepreneurship. The scheme provided considerable flexibility and autonomy to states in planning and executing the programme for incentivising investment in agriculture and allied sectors.</p> <p>It has 3 sub-components -</p> <ol style="list-style-type: none"> 1. Promotion of Agricultural Mechanisation for in-situ Management of Crop Residue 2. Sub- Mission on Agriculture Mechanisation 3. <i>PM Krishi Sinchai Yojana's More Crop Per Drop component</i> <p>Under the RKVY scheme, organic farming/natural farming project components can also be considered by the respective State Level Project Sanctioning Committee (SLPSC) according to their priority/ choice.</p> | <p>The scheme facilitates decentralised planning in the agricultural sector through the initiation of the State Agriculture Plan (SAP) and District Agriculture Plans (DAPs).</p> <p>Each District formulates a District Agriculture Plan (DAP) by taking into accounts financial resources available from other existing schemes (convergence approach). The DAP covers include animal husbandry and fishery, minor irrigation projects, rural development works, agricultural marketing schemes and schemes for water harvesting and conservation, etc. keeping in view the natural resources and technological possibilities in each district. Each state then prepares a comprehensive State Agricultural Plan (SAP) by integrating the District Plans. Each state has constituted a State Level Project Screening Committee (SLPSC) for screening project proposals and ensuring conformity with RKVY guidelines - technical and financial norms and also the Detailed Project Reports (DPRs) and then recommends to the State Level Sanctioning Committee (SLSC) for approval. The implementing agencies of the RKVY include Small Farmer Agribusiness Consortium (SFAC), state level government departments like agriculture department and other state level institutions such as KVKs. A provision for Public-Private-Partnership is also provided for in the RKVY. State governments need to appoint an independent monitoring agency (such as NABARD or any other consulting firm) for the RKVY projects</p> |

***Paramparagat Krishi
Vikas Yojana (PKVY)***

Ministry/Agency: Ministry of Agriculture and Farmers' Welfare

Funding pattern under the scheme is in the ratio of 60:40 by the Central and State Governments respectively. In the case of North Eastern and the Himalayan States, Central Assistance is provided in the ratio of 90:10 (Centre:State)

The *Paramparagat Krishi Vikas Yojana* (PKVY), launched in 2015, is an extended component of Soil Health Management (SHM) under the Centrally Sponsored Scheme (CSS), National Mission on Sustainable Agriculture (NMSA). PKVY aims at supporting and promoting organic farming, in turn resulting in improvement of soil health. The scheme promotes Participatory Guarantee System (PGS) For India (PGS- India) form of organic certification that is built on mutual trust, locally relevant and mandates the involvement of producers and consumers in the process of certification.

In the revised guidelines of PKVY scheme issued in the year 2018, various organic farming models like Natural Farming, *Rishi* Farming, *Vedic* Farming, Cow Farming, *Homa* Farming, Zero Budget Natural Farming (ZBNF) etc. have been included wherein flexibility is given to states to adopt any model of Organic Farming including ZBNF depending on farmer's choice.

PKVY is anchored by the Organic Farming cell of the Integrated Nutrient Management Division of the Department of Agriculture and Farmers Welfare.

At the State level, the State Department of Agriculture, implements the scheme through the Regional Councils that are registered under the PGS- India Certification Programme. At the district level, the Regional Councils (RCs) within the district anchor the implementation of PKVY.

1. After formation of a cluster, state Government in consultation with Support agency shall draw up a strategy for capacity building of farmers on organic farm management, organic input production and use, organic approaches for pest management, adoption of PGS standards in field practices, PGS certification procedures at group level documentation requirements for PGS and peer appraisal procedures through trainings, exposure visits and on-hand data management systems for data uploading.
2. Every year a minimum of three trainings shall be done at a cluster level, covering all the groups. In cases, where cluster is spread over large area (as in hills), trainings may be done at group level comprising members from three groups. In the first year, farmers shall also be exposed to PGS certification systems through exposure visits to existing PGS groups.
3. For mobilisation of farmers in groups and clusters, their capacity building, day-to-day handholding in standards implementation, assisting farmers in peer appraisal and documentation and data management and data uploading Local Resource Persons (LRPs) shall be deployed.
4. Training of Officers /Executives of PKVY Team: Officers/Executives of PKVY Team, members of PMUs at different levels, and Regional Councils, to be trained on Sustainable Agriculture System and Governance Management of FPOs/PCs.

Krishonnati Yojana

Ministry/Agency: Ministry of Agriculture and Farmers' Welfare

Funding pattern: Many earlier schemes have also been merged under this programme. Some of which were central sector schemes and some were centrally sponsored schemes. Therefore, the funding pattern is different for specific sub-components. Centrally sponsored schemes have a ratio of 60:40 of the Central and State Governments respectively. In the case of North Eastern and the Himalayan States, Central Assistance is provided in the ratio of 90:10 (Centre:State). In case of Central Sector Schemes, it is 100% by centre

This umbrella scheme, through its five (earlier eleven) missions, is aimed to help realise the government's vision of doubling farmers' income.

It has five components –

1. Integrated Development of Horticulture
2. National Mission on Edible Oils-Oilseeds & Oilpalm
3. National Food & Nutrition Security Mission
4. Sub- Mission on Agriculture Extension
5. Integrated Scheme on Agriculture Marketing (Agriculture Marketing Infrastructure, National Agriculture Market, Market Research and Information Network)

Annual Action Plan (AAP) invited from the states/ agencies/concerned departments along with targets and based on examination, approval by GoI as per norms.

1. State Agriculture Universities, *Krishti Vigyan Kendras* and *Panchayati Raj* Institutions are actively involved in selection of beneficiary (foundation seeds, inputs, training support under the horticulture, oilseeds, food and nutrition missions.
2. For agriculture marketing, State Agriculture Marketing Boards/Directorates/other institutes and National Institute for Agriculture Marketing (NIAM) are the implementing agencies.

Pradhan Mantri Kirshti Sinchai Yojana (PMKSY)

Ministry/Agency: Ministry of Agriculture and Farmers' Welfare & Ministry of Jal Shakti

Funding pattern: Uniform
Funding pattern of 90:10 between Centre & States.

The scheme has 4 components

1. Accelerated Irrigation Benefit Programme (AIBP): To concentrate on speedier fulfilment of continuous Major and Medium Irrigation including National Projects. This is implemented by Ministry of Water Resources (Jal Shakti)
2. *Har Khet Ko Pani* (HKKP): Creation of new water sources through minor water system (surface and ground water), creating and rejuvenating traditional water bodies, This is implemented by Ministry of Jal Shakti
3. Per Drop More Crop: Enhancing water use efficiency in agriculture through efficient water conveyance and precision water application devices-sprinklers, drip etc.
4. Watershed Development: Ridge territory treatment, seepage line treatment, soil and dampness protection, water reaping and other watershed interventions. This is implemented by Ministry of Jal Shakti

District Irrigation Plan (DIP) preparation and State Irrigation Plan (SIP) preparation is to be done by each state. All the sub-proposals should be aligned with the DAP and SAP need to be vetted by the Nodal Department/Agency identified by State will collate all the sub projects of each cluster received from different implementing departments/districts as one DPR and place before the Inter Departmental Working Group (IDWG) for scrutiny and State Level Sanctioning Committee (SLSC) for sanction. The State Level Sanctioning Committee (SLSC), already constituted under RKVY and chaired by the Chief Secretary of the State, will be vested with the authority to sanction specific projects recommended by the IDWG in a meeting attended by representatives of Government of India. At the district, a District Level Implementation Committee (DLIC) is formed which is chaired by the Collector/District Magistrate and comprises of CEO Zila Parishad/PD DRDA, Joint Director/Deputy director of Departments of Horticulture, Agriculture, Rural Development, Surface and Ground Water Resources, Irrigation and any other line Departments in the district, District Forest Officer, Lead bank officer of the District.

The Project Director, Agricultural Technology Management Agency (PD-ATMA) is the Member Secretary of DLIC.

PD-ATMA makes use of the existing infrastructure and staff under ATMA in districts and blocks for discharging duties under PMKSY - preparation of District

Formation and Promotion of 10,000 Farmer Producer Organisations (FPOs)

Ministry/Agency: Ministry of Agriculture and Farmers' Welfare

Funding Pattern: The scheme is 100% funded by Centre.

The scheme aims at formation of 10,000 FPOs by 2027-28 and provide handholding and support to new FPOs up to 5 years from the year of creation in all aspects of management of FPO, inputs, production, processing and value addition, market linkages, credit linkages and use of technology etc.

A total of 13 implementation agencies, including Small Farmer Agri-business Consortium (SFAC), National Bank for Agriculture and Rural Development (NABARD) and National Cooperative Development Corporation (NCDC) and 10 state level agencies/departments, are empaneling Cluster Based Business Organisations (CBBOs), who are assigned formation of a unit of 25 FPOs each. FPOs are being formed on Production Cluster Approach in agriculture and allied sectors, with focus on One District One Product concept to promote marketing, processing and export. Three implementing agencies - SFAC, NABARD and NCDC are operating Credit Guarantee Fund for the FPOs. It is proposed to form at least 15% of the FPOs in Aspirational districts with one FPO in each of the blocks of Aspirational Districts

As per the Ministry of Corporate Affairs (MCA), there are 21,579 Farmer Producer Companies incorporated as on February 2022. Status of ERADA states is as follows:
Rajasthan – 739
Madhya Pradesh – 1170
Bihar – 889, and
Jharkhand – 375¹³.

Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM)

Ministry/Agency: Ministry of Rural Development

Funding Pattern: The scheme is 100% funded by Centre.

Deen Dayal Antyodaya Yojana - National Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011 as a restructured version of Swarna Jayanti Gram Swarozgar Yojna (SGSY). The Mission aims at creating efficient and effective institutional platforms of the rural poor, enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. In November 2015, the programme was renamed Deendayal Antayodaya Yojana (DAY-NRLM).

NRLM has set up dedicated sensitive support units at the National, State, district and sub-district levels. At the national level, The Joint Secretary/Additional Secretary, Rural Livelihoods (RL), MoRD leads NRLM as Mission Director and Chief Executive officer (CEO) of National Rural Livelihoods Promotion Society (NRLPS). NRLPS comprises of multidisciplinary team of professionals from open market on contract, and requisite support staff. A multidisciplinary DMMU, led by District Mission Manager (DMM), hired from open market on contract or on deputation from the government, includes functional specialists in Social Inclusion, Financial

¹³The State Rural Livelihood Missions (SRLMs) have also promoted 177 Farmer Producer Companies (FPCs) as on March 2021 (updated data not available). Status in ERADA states as on Feb 2022 is: Bihar- 26, Rajasthan – 16, and Jharkhand – 20.

NRLM has set out with an agenda to cover 7 Crore rural poor households across 600 districts
 6,000 blocks
 2.5 lakh Gram Panchayats
 6 lakh villages in the country through self-managed Self Help Groups (SHGs) and federated institutions and support them for livelihoods collectives in a period of 8-10 years.

Inclusion, Livelihoods, Capacity Building, Programme Management, Programme Support etc.. The Sub-district level Support Structure is either a Block Mission Management Unit (BMMU) led by a Block Mission Manager (BMM) and consisting of three to five spearhead teams and a Project Facilitation Team at cluster (sub-block) level (in initial years). Once the Cluster Level Federations (CLFs) are established, the PFTs are withdrawn and in a phased manner.

Scheme of Fund for Regeneration of Traditional Industries (SFURTI)

Ministry/Agency: Ministry of Micro, Small and Medium Enterprises (MSME)

Funding Pattern: The scheme is 100% funded by Centre.

Ministry of Micro Small and Medium Enterprises (MSME), Govt. of India has launched the SFURTI scheme in the year 2005 with the view to promote Cluster development. It is aimed at providing sustained employment for traditional industry artisans and rural entrepreneurs and advancing marketability of products of clusters by providing support for new products, design intervention and improved packaging and improvement of marketing infrastructure.

Interested agencies (NGOs, government bodies, Farmer Producer Organisations) need to apply online on the MSME portal for SFURTI scheme. After registration, they need to submit a concept note online and a score card is auto generated for the agency, based on several criteria including years of existence, relevant experience, turnover etc. If score meets cut off, then the concept note proposal is forwarded to a nodal agency for verifying all documents and validating of the score. If cut off is cleared, then proposal moves to Detailed Project Report (DPR) stage. Implementing agency submits the DPR to nodal agency for validation. After validation, nodal agency recommends the proposal to the Ministry for approval. After project sanction, first installment is released to the Implementing Agency.

National Bank for Agriculture and Rural Development (NABARD)- WADI programme

Funding pattern: 60:40 model of funding between NABARD and Corporate Social Responsibility is the preferred mechanism of project financing by NABARD currently.

The National Bank for Agriculture Department (NABARD) supports various welfare projects for Schedule Tribes in the country under its Tribal Development Fund, the major one under the TDF being WADI project. It emphasises supporting the holistic development of tribal communities with orchard/wadi cultivation as the core element. The broad interventions are in the areas of land use planning, soil and water harvesting measures and improved farming based agroforestry practices.

All these projects are implemented with grant support by NABARD with the help of local NGOs. The NGOs need to apply as per the guidelines. NABARD district/regional office conduct the assessment of documents and the field area. Thereafter, project is approved to NGOs and regular monitoring is done by NABARD.

Van Dhan Yojana

Ministry/Agency: Ministry of Tribal Affairs

Funding Pattern: The scheme is 100% funded by Centre.

The *Van Dhan* scheme was introduced in 2018 by the Ministry of Tribal Affairs and the Tribal Cooperative Marketing Development Federation of India (TRIFED) to raise tribal revenue via the productivity improvement of tribal commodities. The scheme aims

The Tribal Cooperative Marketing Development Federation of India (TRIFED) is the nodal agency at the national level for the implementation of this scheme. At the State level, the tribal area development department/forest department officials at the state and district are responsible for the

at the economic development of tribal involved in the collection of Minor Food Produces (MFPs) by helping them in optimum utilisation of natural resources and providing them with a sustainable livelihood. Under this scheme, the *Van Dhan Vikas Kendras* constituted, provide skill up-gradation and capacity building training and setting up of primary processing and value addition facilities to raise NTFP share around 60% from 20%.

implementation. The District Collector of the respective district oversees the performance. At the grass-root, *Van Dhan Vikas Kendras* (VDVK) are formed which are managed by the community. Self Help Groups are also being entrusted with the running of the VDVKs in many states. The establishment of VDVKs is for providing skill upgrading and capacity building training and setting up of primary processing and value addition facility. They are then trained and provided with working capital to add value to the products, which they collect from the forest. Convergence and Networking with other Govt. departments/schemes is envisaged to utilise the services of existing SHGs/VDVKs. The stock after primary processing is to be supplied by the SHGs/VDVKs to the state department or they can also directly tie up for supply to a corporate secondary processor under the PPP model. The TRIFED through its Tribes India outlets and online channels is also providing support for marketing of the produce of the VDVKs.

Marketing, Processing, Storage, Consumer, Weaker Section Programmes of Cooperatives

Ministry/Agency: Ministry of Cooperation

Funding Pattern: The scheme is 100% funded by Centre.

To provide financial assistance for improving the economic conditions of cooperatives, remove regional imbalances and to speed up cooperative development in agricultural marketing, processing, storage, computerisation and Weaker Section Programmes, the Government provides assistance to NCDC for financing the activities of agro-processing, marketing of foodgrains and input supply, plantation/ horticultural crops, development of weaker sections such as tribal cooperatives, dairy, poultry, livestock, fisheries, handloom coir, jute sericulture cooperatives etc., and computerisation of cooperatives.

National Cooperative Development Corporation (NCDC) is the nodal agency for this programme. Besides its Head Office, NCDC functions through 18 Regional/State Directorates. The field offices play an important role in project identification/formulation and oversee its implementation. NCDC is endowed with in-house technical and managerial capabilities to help cooperatives to identify/formulate projects and successfully implement them under this programme

Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM) Scheme

Ministry/Agency: Ministry of New and Renewable Energy (MNRE)

Funding pattern: For installation support, farmers get a subsidy of 60% on solar pumps. It shall be deposited

The Central Government launched the PM-KUSUM scheme by the Ministry of New and Renewable Energy (MNRE) to support the installation of solar pumps and other renewable power plants, aiming at furthering the production of solar power in India through off-grid solar pumps in the rural area and also gives benefits of solar farming to farmers. In the latest updates, the government introduced modifications to an existing

State-wise allocation for solar pumps and solarisation of existing grid-connected pumps is issued by MNRE once in a year, after approval by a Screening Committee under the chairmanship of Secretary, MNRE. Agricultural Department/ Minor Irrigation Department/ any other Departments are designated by the State Government as the implementing agencies. On acceptance of the allocated quantity by the implementation agencies and submission of detailed proposal as per MNRE format,

to their bank accounts directly. This subsidy is going to be shared by the central and state governments. 30% of the cost is to be obtained as a bank loan and the rest 10% is to be borne by the farmers themselves.

component of the PM-KUSUM scheme – a farmer income support and de-dieseling scheme to channel its focus on solarising agricultural feeders instead of pumps. Its components include - establishment of decentralised ground-mounted grid-connected renewable energy-based power plants (10,000 MW), installation of standalone (27.5 lakhs) and grid-connected (10 lakhs) solar powered agriculture pumps

within a given time, final sanction is issued by MNRE. Projects for solarisation of pumping systems shall be completed within 12 months from the date of sanction by MNRE. Funds up to 25% of the MNRE benchmark cost or cost discovered through tenders, whichever is less, for the sanctioned quantity is released as advance to the implementing agency only after placement of letter of award(s) to the selected vendors. The balance along with applicable service charges is released on acceptance of the Project Completion Report in the prescribed format, Utilisation Certificates and other related documents by the Ministry.

MNRE CFA and State Government's subsidy will be adjusted in the system cost and beneficiary will have to pay only the remaining balance.

Cluster Facilitation Project - Mahatma Gandhi National Rural Employment Guarantee Act (CFP-MGNREGA)

Ministry/Agency: Ministry of Rural Development

Cluster Facilitation Project (CFP) has a vision of addressing poverty in aspirational districts/backward areas with a multi-pronged strategy of leveraging the synergies of the different flagship programmes of Central Government/State Governments in convergence with *Mahatma Gandhi NREGA* through better coordination, planning and its implementation. The CFP shall strive to actively leverage the benefits of the Aspirational Districts Programme (ADP), CSR initiatives, philanthropic organisations and think tanks under the leadership of the District Programme Coordinator (DPC).

The CFP would cover 250 blocks of 117 Aspirational districts and 50 blocks from backward areas of other districts.

A National CFP cell is set up in the Ministry of Rural Development, New Delhi. A team of experts is placed in the cell to support the states for implementing the project. Each state in turn has set up a CFP cell comprising of experts in Natural Resource Management (NRM) and Geographical Information System (GIS) for monitoring of the projects. At the district level, a District Programme Coordinator is responsible for implementation, monitoring and outcomes of the project. The State Governments are expected to implement the project at the block level, either through Civil Society Organisations (CSOs) or directly through the outsourced staff recruited through HR agencies. In case the CSO route is chosen, then the CSO is selected first based on criteria of previous work with *Mahatma Gandhi NREGA* and expertise in NRM activities. The CSO is responsible for the implementation through its own manpower out of the grant funds provided. In case of the non-CSO route, the Programme Officer-*Mahatma Gandhi NREGA* is to be responsible for implementation, monitoring and outcomes of the project. Since the area of a block is often quite large, it will be divided into smaller clusters and placed under the responsibility of a team, which will be called a CFP Team. A CFP Team is to be set up to cover either the geographical area in which 15,000 job card holders reside or 25% of the block area whichever is more. Each CFP is to comprise of two thematic experts i.e., NRM and Agriculture/Horticulture expert.

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Case Studies of Livelihood Development with MGNREGA and in Convergence with other Government Schemes

I. Mapping the journey of convergence efforts of Mahatma Gandhi NREGA and other programmes

The *Mahatma Gandhi NREGA* came into force in 2005 and within a short period of time, it led to creation of useful assets at the village level which boosted water conservation, irrigation and pastureland development. Policy makers realised the potential of the programme beyond short term employment generation, so they focused and explored on the convergence of the programme with existing government schemes.

- In 2008, a central task force on convergence provided a detailed report and framework for convergence of *Mahatma Gandhi NREGA* activities and different schemes/programmes of other departments.
- In due course, many state governments also launched specific theme based programmes of *Mahatma Gandhi NREGA* and other scheme convergence. These were largely centred around (a) horticulture and plantation and (b) land and water development and irrigation. For example, the *Jal Jeevan Hariyali Mission* in Bihar, *Mukhyamantri Jal Swavlamban Yojana, Panch Phal Yojana* in Rajasthan, *Harit Dhara* in Rajasthan (repair and rejuvenation of irrigation tanks in one district of Udaipur) and *Didi Baadi Yojana* in Jharkhand.
- Specific thematic sub-programmes within the *Mahatma Gandhi NREGA* were also launched such as the *Nandan Falodyan Yojana* in Madhya Pradesh in 2006, *Kapil Dhara Yojana* in Madhya Pradesh in 2008, *Birsa Harit Kranti Yojana* in 2018 and *Didi Bagiya Yojana*, 2022 in Jharkhand.
- After the launch of the National Rural Livelihoods Mission (DAY-NRLM) in 2012, which led to large scale coverage of the rural poor through formation of women's Self-Help Groups (SHGs) and Cluster Level Federations (CLFs), convergence of both programmes namely NRLM and *Mahatma Gandhi NREGA* to be implemented under the Rural Development and Panchayati Raj department was also envisaged. In Rajasthan and Jharkhand, CLFs were empanelled as Cluster Facilitation Teams (CFTs) to generate demand and prepare applications of SHG members under Category B (individual works). In Bihar, JEEVIKA (SRLM) worked closely with *Mahatma Gandhi NREGA* for demand generation. In all these states, SHG women were also appointed as NREGA mates and played active role in the monitoring of the works.

Such convergence initiatives have resulted in visible impact on the ground on the beneficiaries. However, the full potential of convergence between different schemes remains far from harnessed due to multiple reasons which are discussed in the next chapter.

II. Case studies of Mahatma Gandhi NREGA and other scheme implementation from the four states

1. RAJASTHAN

1.1 Case Study 1 - *Mukhyamantri Jal Swavlamban Yojana - a multi-department integrated programme for water resources in Rajasthan - Pali district*

Mukhya Mantri Jal Swavlamban Abhiyan (MJSA) has been the flagship state government scheme for the period of four years between 2016-2019, with each year being considered as separate phase of the project. Water harvesting & conservation works were implemented from the funds available under various State departments, NGOs, Corporate Social Responsibility (CSR) etc. to prevent the villages of Rajasthan from drought by doing watershed wise water budgeting for permanent solution. Few of expected impacts of MJSA as envisaged were enhanced monsoon water interception, increased storage capacity, improvement in potable, livestock and domestic purpose water availability, increase in crop- and irrigated area and increase in green cover. As per the MJSA impact report¹⁴ of the first phase, the groundwater level status in 21 non-desert districts was increased by average of 4.66 feet. While the numbers of working tubewell reduced from 24,196 in 2015-16 to 20,529 in 2016-17 in control area, after one year of MJSA in targeted villages, the tubewell functionality increases from 57,790 to 58,700 Ha in the same time period. Increase in cropping area in MJSA project villages (Rajasthan) during lean season (Rabi and Zaid) after first phase of MJSS was reported as 46,879 Ha. Plantation of around 28 lakh plants in the vicinity of micro water bodies created under MJSA led to increase in green cover by 3,678 Ha with five years maintenance proposed through *Mahatma Gandhi NREGA*.

¹⁴https://nrega.nic.in/netnrega/Data/JSA_sucsessstory/Mukhyamantri-Jal-Swavlamban-Abhiyan-Impact-Assessment-Booklet.pdf

Case Study 1-Mukhyamantri Jal Swavlamban Yojana

A multi-department integrated programme for water resources in Rajasthan - Pali district

Nadiya revenue village in Bhimana Panchayat of Bali block, Pali district is a shining example of joint efforts of multiple government schemes and departments to converge for bringing about transformational change in the lives of the Garasiya tribal community. A watershed based approach was adopted for soil and water conservation works on common and individual lands with convergence of six different schemes of five departments under the Mukhyamantri Jal Swavlamban Yojana (MJSY)-a flagship convergence programme of the Govt. of Rajasthan during the 2016-2018 scheme of the Rajasthan State. This includes Mahatma Gandhi NREGA and other departmental schemes under Rural Development, PHED, Forest department, agriculture and watershed departments. Total cost incurred was approximately INR 20 lakhs.

The Watershed Department in consultation with the Jal Garahan Samiti prepared the plan for treatment of the identified macro and micro watershed. Different departments including Forest Department, PHED, Watershed, Rural Development Department (Mahatma Gandhi NREGA) identified the location and type of works that needed to be executed in Nadiya village. A compiled DPRs for all these works was prepared by Watershed Department. DPR was then submitted by Superintending Engineer (Watershed) to district and finally at Jaipur (State) level.

Thereafter the works were allocated to different departments as per the fit with their respective schemes. The execution was also done independently by each of these departments as per their existing systems and processes.

Individual works including field bunding and land levelling works were executed under Mahatma Gandhi NREGA. The Forest Department executed the Loose Stone Check Dam (LSCD), Mini Percolation Tank, Staggered Contour

Trenches (SCT) and Continuous Contour Trenches (CCT) works in the forest land. The PHED executed the construction of open well for drinking water. The Watershed department executed the Staggered contour trenches (SCT) works in the common land of the panchayat.

There were sub committees at the Panchayat level for agriculture works, non-agriculture works, SHG works, Nala treatment works etc. The representatives from these sub committees will form a Jal Graban Samiti, which is led by Sarpanch with one nominated member as secretary.

A joint monitoring mechanism was put in place to ensure proper coordination among the departments and all delivering results as per the joint plan. At the block level, a committee with SDM as president, BDO as secretary and watershed department as nodal agency was formed and at district level a committee with Collector as president, CEO as secretary and Watershed Department as nodal agency was formed for all such coordinated works under the MJSA.

The agriculture land of some of the farmers in the lower catchment area, which was earlier not being cultivated, was brought into cultivation owing to increased soil moisture. The local streams flowed till Feb–March of the subsequent year (2018) after MJSA intervention. Earlier these streams used to dry out by November. Thus, the works executed under MJSA in Nadiya village have led to improved access to drinking water and improved soil moisture, leading to increased cultivated area. The households residing in Nadiya village have greatly benefitted from the intervention. One of the women – Kesi Bai says, ‘Our lives have become much better as we have access to both drinking water and we are able to take a second crop also’



Case Study 2-Cluster Level Federations as Mahatma Gandhi NREGA PIA and leveraging training and input support from agriculture in Aspirational District – Karauli

With the objective of adopting a convergence approach for livelihood enhancement of poorest of poor households of Self-Help Groups (SHGs), promoted by the State Rural Livelihood Mission namely Rajasthan Grameen Aajeevika Vikas Parishad (RGAVP), a unique initiative for empanelling Cluster Level Federations as the Project Implementing Agency (PIA) under *Mahatma Gandhi NREGA* for category B work was rolled out in 2017. More than 70 CLFs have worked/are working as PIA. SHG women have been trained to support beneficiaries with the documentation. CLFs (mostly two each) have also jointly hired Consultant Technical Advisors (CTAs) who are ITI graduates to support in the technical estimates, work supervision and MB preparation. More than 42,000 SHG women have benefitted until date through the CLF-PIA *Mahatma Gandhi NREGA* programme. The most common kinds of works have been field bunding, land-levelling, goat and cattle shed preparation. During the last one year, efforts have been made to support vermi-compost and mushroom cultivation (workshed for livelihood groups) as well.

After undertaking the individual works, the CLFs continue to engage with the SHG members for training on improved agriculture practices and also link with KVKs for technical training (such as on vermi-compost and mushroom).

Cases with specific category of work is captioned below.

i. Land-levelling, field bunding and plantation: 38-years old **Sunita Devi** (wife of Sumer Meena) is a resident of Nangal Sherpur village and Panchayat in Todabhim Karauli (aspirational district). She belongs to *Hanuman Ji Rajeevika Mahila Bahat Samuh* promoted by RGAVP. Sunita Devi has four children two boys and two girls, all of whom are studying in school. Her husband works mostly in their agriculture field and sometimes does other part time work as well. Their 1 bigha agriculture land was undulating with part of the field having a downward slope. This used to lead to water logging and crop damage. She also faced problems in proper irrigation of her land. Due to these problems, production in the field was low. She applied for work under Category B *Mahatma Gandhi NREGA* scheme and her application was sanctioned in three months' time. After completion of the work, she received 200 saplings for plantation on boundary of field, (*Neem, Ardu, Amrood, Ber, Mango* etc.) Currently, around 50 plants are alive. She shared that now her agriculture land is properly levelled and there is no waterlogging during rainy season. She is also able to irrigate her field properly. Production of crops has also increased after these works. She is now being supported under the agriculture programme of RGAVP wherein she has received various trainings on improved cropping practices. This has further helped her to increase her production in wheat, mustard and pearl millet.

ii. Construction of Vermi-compost structure: **Manisha Devi Jatav** is a 32 years old woman who is member of the Jhansi ki Rani Rajeevika Mahila Bahat Samuh in Badleta village, Balghat Panchayat of Todabhim, Karauli. She belongs to the Scheduled Caste. Her family comprises of her husband, three school going children, mother in law and brother in

law. Her husband works as a mason in neighbouring Mahavirji block. Manisha Devi looks after their 1.25 bigha land and one buffalo with support of her mother-in-law. To support her family, she also does sewing and goes to work as an agriculture labour during harvest season.

She also works as *Krishi Sakhi* in her village and supports training of 60 HHs in the village level *Krishi Pathshala*. During the training of *Krishi Sakhis* organised by RGAVP, wherein experts from *Krishi Vigyan Kendra* imparted the training, she realised the benefits of vermi-compost and in May 2020 she applied for vermi-compost structure construction under *Mahatma Gandhi NREGA* scheme with a few other members of her SHG. All the documents were prepared and submitted to the Panchayat. After three months, the request was approved. All the construction related work was done by her and her husband. She has prepared vermi-compost three times and used it in her field. She also got wheat seeds, fertiliser and pesticide from the agriculture department in 2020.



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Manisha Devi says,

“I have benefited hugely through vermi-composting. Firstly, firstly now I don't need to spend so much on buying urea and other fertilisers. Field production has also increased as this compost is good. I have prepared vermi-compost three times since it was constructed. Once, the worms in the pit died due to high temperature in summer season, but I got more worms and continued with the activity. Now I have also constructed a small Azolla pit adjacent to the Vermi-compost put for her buffalo.”

Manisha is now making other SHG members of the village aware about the use of vermi-compost in field and also supporting other members in applying in NREGA scheme for new works. As a *Krishi Sakhi*, she has motivated seven other members to construct vermi-compost unit and these members have built units by their own expenditure.

1.2 New agriculture fields for tribal farmers through land levelling from *Mahatma Gandhi NREGA* & Fruit Plantation through *Krishi Vigyan Kendras (KVK)*- in Aspirational district, Sirohi

Sirohi district in South Rajasthan is an Aspirational District. Largely tribal dominated, Garasiya are the major community who depend on agriculture and wage labour from migration for their livelihoods. The habitations are scattered and each household lives separately within their agriculture fields. A typical village may have eight to twelve such habitations falling within an area of two to five kilometers. Therefore, for any government programme or department, it is difficult to create outreach for dissemination of any information, training or outreach of government services. The state government initiative of 'Prashasan Gaon ki Or' is a mission mode campaign conducted around the time of *Mahatma Gandhi NREGA* planning, wherein the government officials from different departments together organise camps in different villages to resolve the problems of villagers, documentation and sanction of different government schemes.

Fifty years old **Kesaram of Thandiberi** village, Pindwara, attended the Prashasan Gaon ki Or camp in 2018 and submitted his application under Individual Category B work for land-levelling. While his application was approved in a period of three months and work started, it took nearly three years to complete due to issues of hard rock and availability of labour in the village. However, Kesaram has no complains. He says, 'Earlier I had two bigha of cultivable land, after the land-levelling work, I have been able to carve out new field in the undulating hilly part of land which I had. Now I have total of four bigha of land. Centre for microFinance (CmF), an NGO working in Pindwara, helped me to connect with *Krishi Vigyan Kendra* for training on fruit plantation. Thereafter, I got 50 papaya saplings from the KVK. I also got seeds of mustard and moong from the KVK. CmF team visits regularly to guide on disease management in fruit plants and other crops. Now I am also planning to apply for drip irrigation with support of the team'



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Shantibai, aged 62 years, is another tribal farmer from village Thandiberi who benefitted on similar lines. Her son Gangaram, apart from helping his mother in tending to their 1.5 bigha land, used to work as a tractor driver to meet the requirements of his six-member family. Gangaram and Shantibai got support from the Panchayat during the Prashasan Gaon ki Or campaign in 2019 to apply for land levelling work. Their work was sanctioned promptly and took one season to complete. Encouraged with the availability of additional 1 bigha of land, Gangaram and Shantibai sought support of Centre for microFinance (CmF) to prepare year round plan for agriculture. He was linked with *Krishi Vigyan Kendra* for training on fruit plantation, vermi-compost and vegetable cultivation. He received papaya plants from the **ATMA project through KVK along with agriculture kit, storage drums and fencing wire**. He also constructed a vermi-compost unit with subsidy support from KVK. In 2020, Having benefitted from different government departments, the family put a lot of hard work to put the assets to good use. Now Gangaram has given up his work as a tractor driver and works full time in his agriculture field along with Shantibai and his mother. The family is able to earn over INR 1.5 lakhs from vegetable cultivation and is expecting good income from the fruit plantation in the coming years. The family is now an inspiration for many other tribal families in Thandiberi.

1.3 RGAVP (SRLM) *Mahatma Gandhi NREGA* and KVK convergence for Workshed construction for livelihood groups in Tonk

Anita Devi Meena, wife of Bherulal is a 26 years SHG member from Mundia village in Tonk. Her SHG is part of the Roshni Rajeevika Mahila Bahuuddeshiya Sahakari Samiti, Mundia (Cluster Level Federation). The CLF is now working as PIA with the *Mahatma Gandhi NREGA* support of the Panchayat undertook a drive to sensitise members on the different livelihood asset creation opportunities under *Mahatma Gandhi NREGA*. Anita, who is studied till eight standard, does tailoring work and also rears two buffaloes to augment the agriculture

income from four bigha of land. She was looking for opportunities to increase family earnings through taking up some additional income generating opportunities. With the initiation of the District Collector, the KVK and ATMA got actively involved in providing information and training on different kinds of opportunities with value addition. Anita along with 23 other women from the Mundia village showed interest in mushroom cultivation. They were supported by the CTA of the CLF to do site visit and prepare an estimate basis the design of the workshed approved by ATMA. The workshed was approved and constructed within a period of 15-20 days in November 2021. ATMA provided training to Anita and the other women whose worksheds were completed. They were also provided material worth INR 8,000 for start up – cocopit, bags, plastic trays and medicines. The CLF facilitated marketing linkage with a vendor based in Kothputli. While only three months have passed, Anita is quite enthusiastic and says, “ I spend three to four hours each day for this activity and spray water on walls and floors to maintain temperature. Every three days, the vendor

visits and we sell at a price of INR 80-100 per kg depending on the whiteness. We also tried mushroom at home and liked it very much. My mother-in-law also enthusiastically gives mushroom packets to all visiting relatives. Others in the village are also purchasing. This is a good source of protein and also tastes well’.



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2. BIHAR¹⁵

2.1 Case Study 1- Pond Rejuvenation in Muzaffarpur for improved agriculture and fisheries for vulnerable communities through Mahatma Gandhi NREGA and Agriculture Department

The village Sarmastpur falls in Muzaffarpur district situated in Bihar state, with a population 11,089. Under the *Jal Jeevan Hariyali* Mission convergence programme of the state government, the Pakdi Pokhar pond of this village was selected for rejuvenation. The pond is spread in a big area of 2.5 acre with huge water storage capacity of 2.5 lakhs cubic feet, and has the potential to serve large

area for irrigation. However, due to siltation, the water storage capacity had reduced. Also, in the rainy season some agriculture field around the Pokhar had problem of water-logging due to which the agriculture land of the vulnerable households belonging to Mahadalit community remained unused for cultivation.

A Gram Sabha followed by social and resource mapping was held with the help of technical personnel from different departments. Technical estimate was prepared basis dimensions of the pond, up and down slope, soil testing and analysis of rainfall data of last five years to arrive at the storage capacity planning. For rejuvenation of the pond,



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¹⁵Case studies 1-2 have been contributed by Dr. Krishan Murari, NRM Officer – Infrastructure for Climate Resilient Growth, PMU-MGNREGA supported by UNDP, Bihar.

de-siltation was identified as the most important activity. The de-siltation work was undertaken by the Agriculture Department. Excavation of around 8 feet was done through JCB machines for 20-25 days. This was followed by construction of inlet to make way for the water from the water logged area of the agriculture fields around the pond thereby making it usable for cultivation. Outlet was constructed to avoid the pressure on the embankment of the pond during rainy season. Soak-pits and rain water harvesting structures were also constructed. Around 200 plants viz., guava, anwala, Teak, Mango, Neem etc. were planted near the pond. Another important activity taken up was fisheries in the pond. Many families belonging to the vulnerable section of the society (Mahadalit community) through enhancement of agriculture and enabling fisheries.

The pond rejuvenation work was completed in 2020-21. A study was conducted to understand the impact of works undertaken under JJH. Based on discussions with the different departments involved – Junior Engineer, District Official (Minor Irrigation/*Mahatma Gandhi NREGA*) and FGDs with the villagers, the following impact was recorded:

The pond has led to ground water recharge in the surrounding borewells with the result that time taken to irrigate one katha laknd from borewells has reduced from two hours to half an hour

Irrigation access has increased in 15 acres of additional land which is being utilised to take additional crops by the respective farmers.

Due to timely availability of water, productivity of paddy has increased from 11 quintals/acre to 17.6 quintals/acre i.e., a 60% increase

Farmer incomes have gone up mani-fold as they are able to grow more crops, area under maize and potato cultivation has also increased

The water of the pond is also being used for the daily activities viz. bathing, washing clothes, cleaning of cattle and many more

2.2 Case Study 2 - *Jal Jeevan Haryali Park Ramapur Maheshpur: Impacting rural lives through increased incomes and aesthetics through Mahatma Gandhi NREGA and Forest Department*

Rampur Maheshpur is a village located in Tajpur Block of Samastipur district, Bihar with a total 525 families. Pond repair, de-siltation and plantation work were done through the convergence of *Mahatma Gandhi NREGA* and forest department in 2020-21. Pond construction related work was undertaken by the *Mahatma Gandhi NREGA* department and plantation work was undertaken by the Forest Department.

The pond at Rampur Maheshwar was an old pond with a lot of silt deposit. The work of de-siltation by labour, pathways, inlet and outlet, staircases, ghat, wall paintings, wall boundary, a duct for irrigation (connected to outlet) were taken up under *Mahatma Gandhi NREGA*. 45,000 person days of labour work was undertaken for the overall work for which the cost incurred. Through the outlet, water flows to the agriculture fields in the village for irrigation. Staircases and ghat (platform) have been constructed making the pond a place for recreation as well.

Plantation around the park in 2-3 acre was another major intervention which was taken up by the Forest Department. The major species planted were- Sagwan, Moharni, Arjun, Gamhar, Neem, Aam, Jamun, Anwala and Pipal. With the availability of water for agriculture, the total area under wheat cultivation in the village has increased from 600 acres to 800 acres. The productivity of wheat has also gone up from 16 quintals/acre to 20 quintals/acre. With the availability of water, fisheries have also been introduced in the pond and the estimated income is INR 3.5 lakhs per annum.

With the plantation and staircase construction, the aesthetics have been greatly enhanced and a lot of people now visit the pond for leisure.

The future plan is to take up more works through convergence such as roof top rainwater harvesting, safe drinking water, use and importance of soak pit, promoting use of solar energy.



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2.3 Case study – Land development work of *Mahatma Gandhi NREGA* forms the base for triggering livelihood development with technical backstopping of NGO and agriculture department`



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Village Bajitpur in Bajitpur Panchayat of Samastipur district has seen a gradual transformation in agriculture based livelihoods through the foundation work done by *Mahatma Gandhi NREGA*. There are around 5,000 households in the Gram Panchayat. Agriculture is the main occupation. However, many households have to work as seasonal migrants in Punjab, Gujarat and other states as they have less or no land-holding. With support of *Mahatma Gandhi NREGA*, around 700 HHs have benefitted during the past years, not only through wages but also through asset creation.

Sapan Kumar, son of Ram Chandra Prasad shares,

“ We are four brothers and each has around one bigha land. I was one of the first farmers, seven years back, to fill application for work on my agriculture field under *Mahatma Gandhi NREGA* with active support of our Panchayat and Jan Nirman Kendra – the NGO working in their block on agriculture related activities. Field bunding and plantation of mahogany and sagwan helped me greatly. With the *Mahatma Gandhi NREGA* work done on my field, I got interested further in agriculture. With support of JNK, I, along with other farmers, got training from the agriculture department. Now we are able to cultivate vegetables with right techniques. I do not need to migrate outside my village.

Over the years, several good works have been undertaken – pond restoration, plantation, drainage line construction and repair and land levelling. Plantation on common lands has also been done. ”

3. JHARKHAND

3.1 Case Study 1- *Mahatma Gandhi NREGA* Cell –catalysing Mahata Gandhi NREGA led asset creation and convergence

The *Mahatma Gandhi NREGA* cell in Jharkhand has been playing a leading role since 2014 for effective implementation of Mahatma Gandhi NREGS to create livelihood assets. Since 2014, the Mahatma Gandhi NREGA cell of the Rural Development Department (RDD) in Jharkhand 2014 was expanded with a team of three to five professionals from livelihood backgrounds with the financial support of corporate foundations. Under the active leadership of the senior officers in the rural development department, the *Mahatma Gandhi NREGA* Cell has been a catalyst in rolling out innovation and integrated approach towards livelihoods of the poor in Jharkhand.

The process of nano-orchard promotion and scaling up under *Birsa Harit Yojana* is illustrated below as an example.

Nano orchards for individual beneficiaries of *Mahatma Gandhi NREGA* under the *Birsa Harit Yojana*: While horticulture plantation on common and individual lands as an activity was permitted under *Mahatma Gandhi NREGA*, the government functionaries were not very convinced of the success of the activity in terms of the survival of the plantations. The *Mahatma Gandhi NREGA* cell brought together the learnings of horticulture based livelihood experiences of a number of a

The 3 flagship sub-schemes under *Mahatma Gandhi NREGA* in Jharkhand - *Birsa Harit Yojana*, *Didi Baadi Yojana* and *Didi Bagiya Yojana* have been conceptualised and rolled out through the efforts of the *Mahatma Gandhi NREGA* cell.

number of non-government organisations working in Jharkhand to develop detailed guidelines for the nano-orchards.

- With regard to the type of trees, extensive consultations were done with KVKS, *Birsa* Agriculture University, ICAR Horticulture research center at Palandu, *Bidhan Chandra Krishi Vishwavidyalaya*, West Bengal. It was concluded that while litchi was suitable for certain parts of the state, mango varieties, especially Amrapali were suitable to most parts of the state. Therefore, mango plantation was given major emphasis and a nano-orchard model for 1-1.5 acres was finalised.
- Detailed guidelines were developed for identification of beneficiaries and refined continuously over the years based on ground experience. Some of the key features are - realising the importance of the need for irrigation, presence of well (individual or sharing) in the field of the beneficiary was identified as an essential condition. If not, then first, construction/renovation of well (dobha) or farm pond was to be completed under *Mahatma Gandhi NREGA* to be followed by the sanction of nano-orchard. Fencing of the land to be used for orchard (where there are issues of open grazing) were also ensured before the plantation.
- Sanction of the nano-orchard works is done in a given year and pit digging is completed. The plantation work is done in April (i.e., next FY).
- Training of all level of officials of *Mahatma Gandhi NREGA*, NRLM, horticulture, agriculture department officials were done on the guidelines of BHY at the district, block and Panchayat level. The Panchayat functionaries, *Mahatma Gandhi NREGA* mates and SHG leaders were also included in the trainings done at the Panchayat level.

As shared during the discussions, the plant mortality rates are less than ten percent, which is a major achievement of the coordinated effort.

With respect to convergence with other department schemes, a number of BHY beneficiaries have benefitted through drip irrigation subsidy from horticulture department, lift irrigation devices from minor irrigation department, trainings from KVKs and solar lifting devices from *PM-Kusum Yojana*.

There are also plans to leverage the District Mineral Funds (DMFT) for solar irrigation pumps for the orchard beneficiaries.

Plans for further value chain integration: The area under mango cultivation through *Mahatma Gandhi NREGA* has been consistently increasing every year. Recognising the future need for marketing and processing, it is being proposed to organised FPOs under the FPO promotion scheme of the Government of India being implemented through NABARD and NCDC. The role of Cluster Level Federations and Producer Companies promoted by the State Rural Livelihoods Mission (SRLM) called Jharkhand State Rural Livelihood Promotion Society (JSLPS) in the marketing of the orchard produce is also being planned as there is significant overlap between SHG members and the *Mahatma Gandhi NREGA* beneficiary households.

Didi Baadi Yojana-joint initiative of Mahatma Gandhi NREGA and JSLPS

Another innovative programme designed with the convergence of *Mahatma Gandhi NREGA-RDD* and the Jharkhand State Livelihood Promotion Society (JSLPS). With the objective of generating employment and income opportunity at the village level through vegetable cultivation and also address nutrition issues, the *Didi Baadi Yojana* has been introduced which is being implemented through the JSLPS for its SHG members. Vegetable cultivation models for 3 categories: 1-1.5 decimal, 3 decimal and 5 decimal land is being supported under *Mahatma Gandhi NREGA*. The selected *Mahatma Gandhi NREGA* beneficiary women are provided the seeds of different vegetables. They are paid to work on their own farm land for vegetable cultivation at 7-15 days per month (maximum no. of days remains as per *Mahatma Gandhi NREGA* at 100 days in a year). The number of days and wage depends upon the area being cultivated. SHG women can also submit application for group based vegetable cultivation under this sub-scheme of *Mahatma Gandhi NREGA*. Training and capacity building of the women on technical aspects of vegetable cultivation is being undertaken by JSLPS with support of other departments such as agriculture.

Backward integration within Mahatma Gandhi NREGA schemes-Didi Bagiya Yojana

In 2021, the *Didi Bagiya Yojana* was introduced for using *Mahatma Gandhi NREGA* funds for nursery raising for vegetables and fruits. In the scaling up of flagship schemes of *Birsa Harit Yojana* and *Didi Baadi Yojana*, the issue of availability of fruit and vegetable saplings to the beneficiaries is becoming a constraint. The

Mahatma Gandhi NREGA cell therefore conceptualised another scheme as a means of backward integration for developing horticulture nurseries. The beneficiaries are being paid under *Mahatma Gandhi NREGA* for raising nurseries of seesam, mahogany, mango, gamhar and vegetables. Other material required for nursery development are also being provided under *Mahatma Gandhi NREGA* material costs. The ready saplings are being purchase for the beneficiaries who are sanctioned nano-orchards under *Birsa Harit Yojana* and vegetable cultivation under *Didi Baadi Yojana*. The scheme is leading to development of a nursery entrepreneurs who raise 10-15,000 saplings each. Training support is being sought from the agriculture department and KVKs. In locations where NGOs have linked their beneficiary households with the programme, the regular technical support is being provided by them.

3.2 Case Study 2 – Cluster Facilitation Team (CFT) implementation by PRADAN for effective implementation of *Mahatma Gandhi NREGA* for asset creation

The *Mahatma Gandhi NREGA* cell in Jharkhand has The Cluster Facilitation Team (CFT) project initiated by the Ministry of Rural Development (MoRD) sought to involve NGOs and community institutions to assure high quality technical expertise in *Mahatma Gandhi NREGA* planning and implementation and thereby assure quality of livelihood asset generated under *Mahatma Gandhi NREGA*.

In Jharkhand, PRADAN has been working on rural livelihoods through integrated natural resource management approach and community institutions for several decades and was also working closely with the rural development department. PRADAN took up CFT role in 13 blocks of Jharkhand. It decided that in all the 13 blocks, the CFTs would be recruited, paid and monitored by the Block Level Federations. The total Gram Panchayats in each block were divided into three, and one CFT was assigned for each. Each CFT had an Integrated Natural Resource Management (INRM) expert, who is a diploma holder in civil engineering and a Social Mobiliser.

The federations were involved in planning the work of CFTs, regular monitoring and follow up on the work done by them, awareness generation through collectives, presenting issues in the frequent interface with local administration in Block Coordination Committee meetings, engagement with Block Administration in order to raise grievances, periodic engagement with state functionaries in order to place

broad perspective of the programme, and promoting *Mahatma Gandhi NREGA Sahayata Kendra* as an auxiliary wing of the federation for information and facilitation centres for the citizen. Presently more than a hundred and eighty CFT staff has been working on ground for better implementation. More than 180 CFT staff worked along with the federations for a period of three years. Through the involvement of community institutions and large scale capacity building of all stakeholders, the planning and grievance redressal system became more robust thereby leading to high quality livelihood asset creation and convergence with other departments too. The long lasting impact of the implementation of the CFT project implemented in partnership with the Federations has led to recognition of the federations as an active stakeholder in village development and especially *Mahatma Gandhi NREGA*.

*Mahila Vikas Mandal, Kisko an active partner in Mahatma Gandhi NREGA*¹⁶

‘Pranam didi aaiye bathiye’ (Greetings! Didi please come and sit), has now become the customary greeting of BDOs (Block Development Officer) for members of the federation. This is a stark difference from earlier when women from the village did not imagine interacting with bureaucrats. The work of the Mahila Vikas Mandal, whether it be the planning process, the implementation process or successfully lobbying at the block or the panchayat, has resulted in a new found respect in BDOs towards the women of the federation. It all started in 2014 when the CFT project was taken up in the Kisko block. The Federation’s efforts towards implementing the NRLM project in the whole block led to brisk paced social mobilisation. Initially in 2014-15, only six villages were taken up in three panchayats for CFT. Comprehensive INRM based planning was done and 997 schemes were identified. The SHG/VO mobilised the villagers in the planning who enthusiastically responded, and the villagers were pleasantly surprised to learn that such planning could take place under the scope of *Mahatma Gandhi NREGA*. The Federation decided to raise awareness via rallies, videos, camps and soon the efforts of the Federation bore fruit and led to an increase in the number of applicants for job cards and bank accounts, as well as an increase in the awareness levels among the people about job availability. The state government’s *‘Yojna Banao Abhiyan’* initiative also helped to reinforce the importance of proper planning for *Mahatma Gandhi NREGA*.

¹⁶Source: CFT experiences, PRADAN, published.

A panchayat planning team, which includes two SHG members per team from the federation, was created to help the Panchayat in effective planning. The SHG/VO took this as an opportunity and participated in huge numbers across the block. Many plans were facilitated solely by the SHG members. A concrete plan was made in every village with a special focus on the extremely poor. This planning process went for almost two months, covering every hamlet of block. A wide variety of schemes were identified, such as farm ponds, land leveling, goat sheds, vermi-compost pits, irrigation channels, horticulture & plantation etc, breaking the practice of identifying conventional schemes like Mitti Morung Road, wells, and big ponds in *Mahatma Gandhi NREGA*. This gave the community a new hope in *Mahatma Gandhi NREGA* implementation. A total of 184 SHG women were trained as *Mahatma Gandhi NREGA* mates and 101 were deployed. Having witnessed the callous approach of the administration towards the rights of the labourers in *Mahatma Gandhi NREGA*, the Federation set up a *NREGA Sahayta Kendra* at the block premises. The Kendra was a room in front of the BDO chamber, where three SHG members were trained and placed by the federation. Their main function was to address the various grievances of the labourers and also act as a watchdog. Any discrepancy at the village level was brought directly to the Sahayta Kendra, who brought it to the notice of the administration. This gave a fair opportunity to the people, and they could now raise issues in writing and take formal receipts. The confidence of labourers and villagers in the SHG *Mahila* Mate increased tremendously, even though they were very skeptical during the initial days of induction. Nowadays, the administration tells everyone about the strength of the SHG Federation and even invite them for all relevant meetings.

3.3 Case study 3– Lakhpati Kisan Initiative - From poverty to prosperity through convergence of different schemes - Dhadkibani village, Dalbhumgunj district, East Singhbhum

Dhadkibani is a shining example of how development can be accelerated by utilising Government support properly. *Mahatma Gandhi NREGA* has made a significant contribution to the development of agriculture in this village. SUPPORT, the NGO working in the region with technical support of Collectives for Integrated Livelihood Initiatives (CInI) supported the SHG members in the village for livelihood planning. Horticulture (mango plantation) emerged as one of the activities which could help the members embark on a journey from poverty to prosperity. The members were



©Collectives for Integrated Livelihood Initiatives (CInI)

sent to an exposure visit to see other orchards and gain motivation. Six members of the **Hihiri Pipiri Mahila Mandal** SHG were supported to fill in application for orchard under the *Mahatma Gandhi NREGA* scheme. After sanction of the project, the members set up mango orchards with total expenditure of INR 1.47 lakhs. The team of SUPPORT and CInI provided training and on-field extension support to the members to take care of the orchards. A micro-lift irrigation was also supported through CInI-Tata Trusts project. Thereafter, the members were supported to get drip irrigation system under PM *Krishhi Sinchai Yojana* (PMKSY) with INR 1.54 lakh subsidy. This helped to set up a stable system of irrigation with water use efficiency. Inter-cropping with water melon and year round vegetable cultivation in *Kharif*, *Rabi* and Summer seasons have enabled the women to become *Lakhpati Kisans*. Today, there is 3.1 acre of mango orchard on a fallow land on the banks of the river Subarnarekha which produces a golden crop.

3.4 Case study 4 – A success story of change through INRM from *Mahatma Gandhi NREGA*

Aara-Keram is a small village in Tundahuli panchayat of Ormanjhi block, situated 28 km from Ranchi, the capital of Jharkhand. It has a geographical area of 60 ha and a total of 117 households out of which 114 are *Mahatma Gandhi NREGA* card holders. As part of the CFT programme, which emphasised the need for bottom up planning, a group of villagers from *Aara-Keram* were sent on an exposure to the famous Ralegan Siddhi village in Maharashtra. The visit energised and inspired the

group to initiate an INRM planning approach on their return by involving other villagers. Reconnaissance survey and formation of SHGs were done. Involvement of women in the planning process, resource mapping, current land use mapping, problem mapping, interventions map, overlaying family based plan maps, prioritising, budgeting works, role division for implementation and supervision by community were discussed and undertaken. This was followed by training of villagers especially SHG mate on technical design and layout, measurement of work and payments as well as maintenance of books of accounts. Farmers were also trained to adopt improved technology like new variety adoption, plastic culture and drip irrigation for productivity enhancement. Training on animal husbandry and an exposure visit to a demonstration farm was also planned and executed properly.

Thereafter, the applications for all individual and common works as per the INRM plan were submitted under *Mahatma Gandhi NREGA* adhering to all the guidelines and documentation.

A total of **45 dovas** were constructed. These are being used for agriculture and fisheries. The Department of Agriculture, Animal husbandry and Co-operative identified, trained and provided fish spawn to the beneficiary of Aara-Keram village. Jungle Bachao Samati has protected and rejuvenated its neighboring approx. 80 Ha. village forests. Out of 45 Dova, **33 ponds** are filled with adequate water during this rainy season are being utilised for fish farming and rest of the 12 Dova are located on the upstream ridges do not have sufficient water retention capacity. Accordingly, they are used as collection and recharging pond of surface water but in all the 33 Ponds, fingerlings of different species of fish has been taken up. The ponds owner have benefited on an average **INR 10-15,000** in the first year out of fisheries. **20 NADEPs and 21 cattle sheds** were also constructed. The village was declared as 'model village' by the Chief Minister and is now inspiring other villages in the block to adopt similar approach of executing INRM plan through *Mahatma Gandhi NREGA*.

4. Madhya Pradesh

4.1 Case Study 1 – *Mahatma Gandhi NREGA* lays foundation for farmer prosperity in Barwani

Mahatma Gandhi NREGA + Horticulture department

Banshilal, son of *Mehukal* is a resident of Bajad village of Aglagav Panchayat, Rajpur block in Barwani district. He is a young generation farmer and wanted to do something different than regular crops unlike his father. Upon hearing and seeing the benefits of horticulture plantation, *Banshilal* was looking forward to take up the same, however, did not have the initial investment required. *Mahatma Gandhi NREGA* proved to be a boon for *Banshilal*. Once he filled in his application and it got sanctioned, *Banshilal* took up four acres of land for the plantation. The pit digging, plantation and irrigation activities were funded from *Mahatma Gandhi NREGA*. A total of eleven *Mahatma Gandhi NREGA* job card holder families got work on this plot and 16 muster rolls were completed in the process. Total cost of material and labour sanctioned by *Mahatma Gandhi NREGA* has been INR 2.13 lakhs. *Banshilal* got 1,482 plants of guava, amla, mango, custard apple, orange, kathal and munga from a local nursery and the amount was reimbursed by the horticulture department.

Banshilal says,

“I am very happy with the support provided from *Mahatma Gandhi NREGA* and horticulture. I am taking good care of the plantation. In the first year, the plants will give five kg/plant and from second year, it will increase. The plucking of fruits and tending to the plants will also generate more employment for some families upto the next ten years, which I will be managing from the sale of fruits. A lot of farmers come to visit by fields from far off areas which is a matter of pride for me. More and more farmers who have some land and well/borewell, should apply for *Mahatma Gandhi NREGA* for horticulture. Later on other departments also come to provide support one may seek.”

Kapil Dhara Yojana (Mahatma Gandhi NREGA sub-scheme) and agriculture

Gangaram, son of Sadhu Ram is another farmer from *Bajad* village, *Aglagav* block, *Badwani* district whose life has been positively impacted by *Mahatma Gandhi NREGA*. Gangaram had been doing rain-fed agriculture on his 2.5 acres land growing maize and cotton crops. As he did not have access to irrigation, he faced issues of low productivity whenever rains were less or there was long dry spell during the monsoon.

Gangaram remembers,

“ Without water, I used to get total production of ten quintals in cotton and 15 quintal of maize. My average expenditure used to be INR 20,000 and total price I got from selling cotton and some maize was INR 20,000. This was not enough to sustain my family. Also, it was a one-time income during the year. Then I applied for construction of well under *Mahatma Gandhi NREGA (Kapil Dhara Koop Nirman Yojana)* and submitted all documents of land record, identity card and others and got sanctioned INR 1.9 lakh for the construction. Now I am able to grow crops three times and my income has increased by INR 50,000 per annum. ”

Gangaram got training support from the agriculture department for Package of Practices (PoP) of vegetables. Now he grows maize and cotton in Kharif, wheat and gram in Rabi and in Zaid he grows – groundnut, okra and maize.



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©Samarthan

4.2 Case Study 2 – Integrated livelihood approach through *Mahatma Gandhi NREGA* convergence in Panna district

A number of NGOs in Madhya Pradesh have enabled the linkage of *Mahatma Gandhi NREGA* beneficiaries (well, ponds and plantation) with different government departments to multiply the impact of the asset created under *Mahatma Gandhi NREGA*. The story of **Govind Mandal** from *Udiki* village, *Panna* district is one of them. Govind was a rickshaw driver for over 20 years. He had five acre of land in his native village but due to lack of irrigation, the family could grow only one crop in Kharif. This was not enough for even the family’s own consumption. Therefore despite wanting to return to the village, Govind was unable to find any income source in the village to sustain his family of four members. In 2017-18, with support of Samarthan – an NGO working on rural livelihood issues, Govind was able to apply for farm pond under the Individual category work of *Mahatma Gandhi NREGA*. After the construction of farm pond, there was no looking back. Samarthan supported him to undergo training and exposure visits on fruit crop cultivation and organic farming. Govind liked the idea of organic farming as it was good both for the soil and also health of humans. He was linked with the fishery and horticulture department for training and leverage of inputs.

With the farm pond ready and increased knowledge due to trainings offered by Samarthan and government departments, Govind now had enough water to irrigate his land too and he began farming in earnest, using an integrated model. He began to grow several vegetables, wheat and paddy, besides fruits, ensuring that he had a steady income throughout the year.

“I only use cow dung from my cattle as I know using chemicals is harmful to health. Why would I knowingly ruin my health and that of others. ”

They manage to earn about two to three lakh rupees a year from paddy and wheat alone. The vegetables, fish and eggs from their hens add to their income. From the fish they get about a lakh of rupees yearly, he said. They also have about 100 free range hens that fetch a good price.

“ Our income went up once *Mahatma Gandhi NREGA* helped build our pond in 2017-18, Mandal’s son Nirajan also works hard with his father and they have made such a success of their integrated farming venture that they do not have to go anywhere looking for welfare schemes that will help them. People in charge of the schemes themselves step forward and offer support, says the field coordinator of Samarthan. ”



©Samarthan

CONCLUSION

Horticulture is the major category across all four states wherein convergence of *Mahatma Gandhi NREGA* and other government programmes/departments is seen and which has created visible impact in terms of enhancing income of farmers substantially and also resulted in reduced migration. Within horticulture convergence, *Mahatma Gandhi NREGA* funds have been used for pit digging, farm pond, creation/repair of wells and horticulture plants and trainings of farmers have been done from horticulture department. Both NGOs and government itself has taken the initiative in this model. The horticulture department has also been quite positive and supportive in this convergence.

KVK-ATMA programmes convergence with *Mahatma Gandhi NREGA* beneficiaries is also seen wherein farmers who have benefitted from irrigation work have received seeds, fertilisers and other farm equipments (spray pumps) etc. Such convergence has been largely facilitated by NGOs, who coordinate separately with different departments at the local level for mobilising such benefits for farmers whom they have been able to get supported under *Mahatma Gandhi NREGA* individual works.

State coordinated flagship convergence programmes with focus on water conservation and irrigation: Schemes such as *Mukhyamantri Jal Sawavalamban Yojana* in Rajasthan, *Jeevan Hariyali Mission* in Bihar, *Birsa Harit Yojana*, *Didi*

Baari Yojana had the strategy of convergence among different departments (watershed, forest, irrigation, agriculture and Panchyati Raj (*Mahatma Gandhi NREGA*) and under the regular monitoring of District Collectors, the different departments decided on common works which will be funded jointly and each department did its work as per their own approved processes. Being state level programmes, regular monitoring from the CM offices was also done which led to significant irrigation potential creation. However, the process of such coordination and convergence remained limited till the focus of the govt and it has not been institutionalised within the departments.

Convergence of NRLM-*Mahatma Gandhi NREGA* convergence with Federations as CFT/PIA: In Rajasthan and Jharkhand, through a special partnership between SRLM and *Mahatma Gandhi NREGA*, government supported cost of *Mahatma Gandhi NREGA* Sakhis and technical personnel who helped in documentation and estimate preparation for individual work of SHG members. These have resulted in asset creation for SHG members. With asset creation enabled through *Mahatma Gandhi NREGA* and available loans from SHGs and training support from SRLM livelihood programmes, the SHG members are slowly able to improve their livelihoods through growing improved crops and vegetables.

5



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Recommendations for ERADA

ERADA programme is focused in four states of Bihar, Jharkhand, Madhya Pradesh and Rajasthan. The following section includes a brief on national and state (ERADA) specific priorities and programmes in agriculture which would be relevant for the ERADA programme.

Emerging national focus areas in agriculture

- **Integrated Farming Clusters (IFCs)** -The DAY-NRLM has also initiated the Integrated Farming Cluster (IFC) programme to expand integrate the existing diversified livelihood activities being undertaken for SHG members. An IFC would comprise of two to three (this may change depending on the state) adjoining intervention villages covering about 250-300 households where every SHG household will be supported with improvement in three to four livelihoods (farm and non-farm) with strong backward and forward linkages. The SRLM can implement the IFC directly or also engage implementing agencies (NGOs) to promote minimum four to five such IFC per block in close proximity for better aggregation.
- In the central budget, allocation under *Rashtriya Krishi Vikas Yojana (RKVY)* has nearly tripled to 10,433 crores for 2022-23, up five times from the revised estimate of INR 2,000 crores in 2021-22. As the RKVY has flexibility for innovation and programme as per local needs, state governments have good opportunity to leverage the scheme for the broad objectives of sustainable agriculture, entrepreneurship, mechanisation etc.
- **Horticulture** - The National Mission on Horticulture (NHM) seeks to promote horticulture by providing availability of quality inputs such as planting material, and postharvest interventions such as reduction in losses and access to markets. This Mission has been subsumed as **Integrated Development of Horticulture component under the *Krisbi Unnati Yojana***. The component has been allocated INR 1,900 crore in 2022-23, 19% higher than the allocation for the horticulture mission in 2021-22 (INR 1,594 as per the revised estimate). As more funds become available for horticulture promotion, this sector is also likely to become a focus area in the coming years.
- **Convergence with NRLM programme** - As the National Rural Livelihoods Mission (NRLM) has started operations in 6,788 blocks of 707 districts (out of total 6,968 blocks of 718 districts in the country) through 75.4 lakh SHGs (as on March 2022), a majority of the programmes are planning a convergence approach with the SHGs. The *Mahatma Gandhi NREGA* programme and NRLM both being part of the Rural Development Department also has led to closer coordination. For example, recently, *Mahatma Gandhi NREGA* and DAY-NRLM programme have converged for Moringa (Drumstick) cultivation by SHG members through the involvement of Cluster Level Federations as Project Implementation Agencies under *Mahatma Gandhi NREGA* is planned to promote agri-nutrition. Nurseries would also be developed through the *Mahatma Gandhi NREGA* and five plants each would be distributed to the SHG members for plantation. The *Mahatma Gandhi NREGA* would also provide labour cost for the plantation for three to five years, depending upon the species.
- **Specific focus in Aspirational Districts** - Across most government programmes, specific focus on implementation in Aspirational Districts- through dedicated targets and review mechanisms is being placed. Some of these include - formation of FPOs, CFP-*Mahatma Gandhi NREGA* and *Van Dhan Yojana*.

State specific focus in agriculture in ERADA states

- **Rajasthan:** State government in its budget for 2022-23 has made additional allocation for *Mahatma Gandhi NREGA* to enable employment of 125 days (against 100 days as per the Act). The agriculture budget was presented separately having mention of eleven separate missions. These are focused on millet production, natural and organic farming, fencing support to farmers, compensation to farmer households in case of accidents/death during agriculture operations (*Mukhyamantri Krishak Saathi Yojana*).
- **Bihar:** With reference to Mahatma Gandhi NREGA, the focus of the government continues on irrigation infrastructure – construction and revival to bring more area under cultivation. In the budget for 2022-23, the government has reiterated its focus on irrigation development, market yards (Bazaar Prangan) construction. Sugarcane industry promotion is also an area to ensure stable prices to farmers.
- **Madhya Pradesh:** The government, through its *Pushkar Dharohar Samridhhi Yojana*, is working on mission mode to revive approximately 40,000 ponds and traditional water harvesting structures through *Mahatma Gandhi NREGA*. It is planned to bring 1.5 lakh ha under irrigation through these works. The other focus areas include 50-70% subsidy for wire fencing to farmers (*Mukhyamantri Khet Suraksha Yojana*, earlier called the Madhya Pradesh Wire Fencing Subsidy Scheme), 50% subsidy on agriculture farm equipment (*Madhya Pradesh Kisan Anudan Yojana*), organic/natural farming, Minimum Support Price for agriculture produce and crop insurance.
- **Jharkhand:** The focus areas include natural/organic farming under Paramparagat *Krishi Vikas Yojana*. Under *Mahatma Gandhi NREGA*, the focus is to bring more households under horticulture and agri-nutrition interventions through the *Birsa Harit Yojana*, *Didi Baadi Yojana* and *Didi Bagiya Yojana*. The formation of FPOs for marketing of the horticulture (mango) produce of the *Mahatma Gandhi NREGA* beneficiaries of previous years is also in the pipeline.

In light of the overview of the major schemes in agriculture (Chapter 3), examples of best practices of convergence of different development programmes (Chapter 4) and the above section on national and state specific priorities as reflected in the ongoing government programmes, discussions with relevant officials and the budgets, ERADA project could consider the following interventions:

- DAY-NRLM programme (SHGs, VOs and CLFs) could be considered as the community institution platform.
- Integrated Farming Cluster (IFC) approach needs to be adopted for higher returns from agriculture together with NRM convergence through *Mahatma Gandhi NREGA*. The highly successful approach of Lakhpati Kisan Initiative (Case study 3.3-Jharkhand) of the Tata Trusts implemented through their Associate Organisation - Collectives for Integrated Livelihood Initiatives (CInI) can be replicated in Jharkhand and also parts of Madhya Pradesh and Bihar where irrigation access is ensured through the *Mahatma Gandhi NREGA* or other government schemes. The approach under the programme is to undertake detailed resource planning with SHG members and plan for year round cropping (to the extent possible) along with ensuring income from livestock, lac or fisheries for augmentation¹⁸.
- Given the focus of the state and national governments on natural/organic farming, the approach can be adopted for select crops, especially millets, and to ensure sustainability of the input materials, development of SHG based micro-enterprises for vermi-compost, preparation of *beejamrit*, *jeevamrit* with *Mahatma Gandhi NREGA* support leveraged for worksheds can be explored.
- **Adoption of value chain approach** from production enhancement to processing and marketing can be undertaken for one to two major agriculture commodities in the selected districts. This is also aligned with the government's specific focus on promoting FPOs in Aspirational Districts with the strategy of 'one district, one product'. The design of the agriculture programmes under ERADA should also factor in building of linkages with proposed/already formed FPOs in the proposed districts.

¹⁸CInI, the implementing agency of the Lakhpati Kisan Initiative of the Tata Trusts is supporting over 50,000 farmers in Jharkhand to adopt the layered /integrated approach to livelihoods and earn INR one lakh rupees plus from agriculture and allied activities. The program has been recognized at the national level too in various government forums.

State Specific Focus

- **Jharkhand:** Already the state governments have made efforts for horticulture (orchards and vegetables) value chain development. Jharkhand has also demonstrated successful examples of horticulture through the *Mahatma Gandhi NREGA*. The ERADA project could build upon this in the IFC or *Lakhpati Kisan* model to integrate horticulture with livestock (goats) and fisheries.
- **Bihar:** The farm landholding size in Bihar is relatively small. However, water access is good also augmented with the government's efforts of irrigation infrastructure development under *Mahatma Gandhi NREGA*. Under the NRLM programme, there is a good network of SHGs and FPOs developed in the state. Aggregation and value addition of major crops such as maize (used for poultry feed), pulses (lentil, gram, moong) and horticulture (litchi) through FPOs could be a strategy for Bihar.
- **Rajasthan:** Irrigation water availability remains an issue and therefore there is limited scope of vegetables and high water intensive crops. Revival of existing water structures – desiltation of ponds, anicuts, checkdams under common works in *Mahatma Gandhi NREGA* therefore could be an important component to increase water availability for both *Kharif* (life-saving irrigation) and *Rabi* crops. Integrated farming with pulses and oilseeds as focus in agriculture along with dairy and goat value chain development could be explored under ERADA in Rajasthan.
- **Madhya Pradesh:** The state government has worked extensively on irrigation access through *Mahatma Gandhi NREGA* and other schemes. Further, landholding is also comparatively good which provides opportunity for horticulture value chain development. Pulses value chain (almost all pulses are found in MP) also hold high potential as the Minimum Support Price system in the state is quite good.

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