



Annual Report 2023-24



Journey Towards Development



Society For Promotion Of Wastelands Development

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SPWD MISSION

**To prevent, arrest and reverse degradation of
life support systems,
particularly land and water
so as to expand
livelihood opportunities
in a sustainable
and equitable manner
through people's participation**

GOVERNING BOARD (As on March 31, 2024)

The Governing Board provides guidance and direction for SPWD's efficient functioning based on a periodical review of programmes and activities. The Governing Board, comprising the following members, met three times during the reporting year.

Lt. Col. Gautam Das (Retd.), Chairman and Executive Director

Shri G. Bhaskar Rao	Member
Shri Pran Ranjan	Member
Shri N Chandra Shekhar	Member
Ms Sonali Bhist	Member
Ms Menaxi Batra	Member
Ms Shobhita Astana	Member
Mr. Mohan Kumar	Member



MEMBERS (As on March 31, 2024)

Founder	16
Individual Life	71
Individual Ordinary	11
Institutional Life	22
Institutional Ordinary	16
Corporate Life	07
Corporate Ordinary	0

Total -----
143

SPWD is involved in implementation of the programmes at one hand and research and development (R & D) and planning on other hand.

In the Eastern region, SPWD is working in the states of Jharkhand and West Bengal having the objectives of livelihood enhancement through watershed development and watershed based planning under MGNREGA and area development where it covers more than 5,000 household directly (beneficiaries) and around 15,000 HH indirectly. These works cover around 45,000 hectares of land over 200 villages.

On the rights based and conflict resolution between man-animal conflicts zone, SPWD is working in 5 villages and with 1500 HH.

SPWD is also working in networking mode in western Rajasthan where SPWD works for Women Land rights, Pastoralists rights and their problem resolutions, CFR management plans under FRA and Climate resilient agricultural.

GIS was deployed as a tool to enhance and deepen watershed and natural resource based planning process using participatory methods for the identification and prioritization of interventions, and e-design of structures and estimation of costs. The idea was to develop it into an end to-end design process for developing GP level annual plans, five-year perspective plans and detailed project reports (DPRs) for key rural development programmes in a cost effective and low-tech manner with time efficiency and higher accuracy. In view of capacity issues in technical design resources of government systems in the states, this approach was being used by semi-technical people at GP and Block level. The initiative tried to integrate modern remote sensing (RS) and GIS approaches with local wisdom related to natural resources. The programme was being implemented in close coordination with the government line departments so as to help in scaling-up and mainstreaming. The key functionaries of MGNREGS responsible for planning and implementation were being provided adequate information and skills to perform their roles effectively. The functionaries at GP and, at times, Block level were being supported with formal training sessions to build their capacity.

Foreword

This year was markedly different from previous years due to extensive efforts undertaken to understand the following issues from various perspectives:

1. **Climate Change Impacts on Agriculture:** Comprehensive studies and discussions focused on how rising temperatures, altered precipitation patterns, and increased frequency of extreme weather events are affecting crop yields, soil health, and water availability.
2. **Resilience Enhancement through Adaptation Techniques:** Researchers and practitioners examined the effectiveness of various adaptive practices, such as crop diversification, conservation agriculture, and the use of climate-resilient crop varieties, in improving the resilience of farming systems.
3. **Socioeconomic Implications:** There was a concerted effort to analyze how climate change and adaptation strategies impact the socioeconomic conditions of farming communities, including changes in income, labor dynamics, and rural livelihoods.
4. **Technological Innovations:** The role of advanced technologies, including precision agriculture, remote sensing, and data analytics, was explored to determine how they can aid in better decision-making and resource management under changing climatic conditions.
5. **Policy and Governance:** Discussions centered on the effectiveness of current policies and governance structures in supporting climate adaptation in agriculture, highlighting areas for improvement and the need for more robust, adaptive frameworks.
6. **Community Engagement and Education:** Emphasis was placed on understanding how to effectively engage and educate farming communities about climate risks and adaptive practices, ensuring that local knowledge and perspectives are integrated into adaptation strategies.
7. **Women Land Rights Issues and Climate Change Resilience:** Special attention was given to the intersection of women's land rights and climate resilience, recognizing that secure **land** tenure for women can enhance adaptive capacity, improve agricultural productivity, and contribute to more equitable and sustainable development.
8. **Pastoralists and Climate Change:** The unique challenges faced by pastoralist communities were analyzed, including the impacts of climate variability on grazing patterns, water resources, and livestock health, and the adaptation strategies these communities employ to maintain their livelihoods.
9. **Watershed Development and Climate Change:** The role of integrated watershed management in mitigating the impacts of climate change was explored, highlighting how effective watershed development can enhance water availability, prevent soil erosion, and support sustainable agricultural practices.

10. Food Security and Sovereignty: Efforts were made to understand the complex relationship between climate change, food security, and food sovereignty, emphasizing the need for resilient food systems that ensure access to nutritious food while respecting local production practices and rights.

11. Youth and Land: The engagement of youth in agriculture and land management was a key focus, examining how young people can be empowered to take active roles in farming and land stewardship. This included addressing barriers to land access for youth, providing education and training opportunities, and fostering innovation and entrepreneurship in the agricultural sector.

These multifaceted explorations have provided a deeper, more nuanced understanding of the challenges and opportunities in enhancing agricultural resilience in the face of climate change.

Natural ecosystems management is crucial for enhancing resilience to drought, desertification, and climate change. SPWD has started working on this strategy in our working areas along with the ongoing projects and activities. It is at the preliminary stage where we are learning about it.

Natural ecosystems management involves the strategic stewardship of natural landscapes to maintain and enhance their ecological integrity and resilience. This approach involves preserving and restoring native vegetation, implementing sustainable land-use practices, and protecting biodiversity to maintain ecological balance. Key practices include protecting native species, reforesting deforested areas, managing invasive species, and maintaining water quality through wetland preservation. By fostering ecosystem services such as carbon sequestration, soil fertility, and water regulation, natural ecosystems management helps mitigate climate change impacts, supports biodiversity, and enhances the resilience of ecosystems and human communities to environmental stressors like drought and desertification. Techniques such as reforestation, agroforestry, and the establishment of protected areas help in conserving water, improving soil health, and sequestering carbon. By promoting ecosystem services like water filtration, pollination, and erosion control, natural ecosystems management not only mitigates the adverse impacts of climate change but also supports the livelihoods of local communities, ensuring a sustainable and resilient environment.

Securing water in times of climate change, particularly in the context of drought and desertification, hinges on natural ecosystems management to enhance resilience and water availability. This approach includes restoring watersheds and wetlands to improve water infiltration and storage, thus mitigating the impacts of prolonged dry periods. Sustainable forest management practices, such as reforestation and agroforestry, enhance soil moisture retention and reduce desertification. Additionally, sustainable agricultural practices, community-based resource management, and biodiversity conservation play crucial roles in maintaining ecosystem health, which is essential for effective water regulation. Integrating green infrastructure in urban planning, like permeable pavements and green roofs, reduces runoff and increases groundwater recharge. By maintaining healthy ecosystems, these strategies help to stabilize soil, reduce erosion, and promote water retention in arid and semi-arid regions, effectively combating the adverse effects of drought and desertification. This holistic approach not only ensures a reliable water supply but also enhances the resilience of communities and ecosystems to climate-induced water scarcity.

Benefits of Natural Ecosystems Management

- **Resilience to Climate Change:** Ecosystems managed sustainably are more resilient to extreme weather events, ensuring more reliable water supplies.
- **Biodiversity Conservation:** Protecting ecosystems helps preserve biodiversity, which is vital for ecosystem services that support water regulation.

- **Cost-Effectiveness:** Natural solutions often prove to be more cost-effective in the long term compared to engineered solutions like dams and water treatment plants.

Key strategies and practices involved in natural ecosystems management

For Water security

1. Watershed Management

- **Watershed Restoration:** Reforestation, wetland restoration, and sustainable land use practices help maintain the natural hydrological cycle.
- **Soil Conservation:** Practices such as terracing, contour farming, and agroforestry reduce soil erosion and enhance groundwater recharge.

2. Wetlands Conservation

- **Natural Filtration:** Wetlands act as natural filters, removing pollutants and sediments from water, improving water quality.
- **Flood Control:** Wetlands store excess rainwater, reducing flood risks and maintaining water supplies during dry periods.

3. Forest Management

- **Transpiration and Infiltration:** Forests enhance water infiltration into the soil and regulate the release of water through transpiration.
- **Temperature Regulation:** Forests help in maintaining cooler temperatures, which can reduce water evaporation rates.

4. Agro-ecology

- **Sustainable Agriculture:** Incorporating practices such as crop rotation, polycultures, and organic farming reduces water usage and maintains soil health.
- **Agroforestry:** Integrating trees with crops enhances biodiversity, reduces soil erosion, and improves water retention.

5. Urban Green Infrastructure

- **Green Roofs and Walls:** These structures reduce storm-water runoff and improve urban microclimates.
- **Permeable Pavements:** These allow water to infiltrate the ground, reducing runoff and recharging groundwater.

6. River Basin Management

- **Riparian Buffers:** Vegetative areas along rivers and streams filter runoff, reduce erosion, and provide habitat for wildlife.
- **Natural Flow Regimes:** Maintaining natural flow patterns in rivers supports biodiversity and ecosystem health, which are crucial for water regulation.

7. Climate-Resilient Agricultural Practices

- **Drought-Resistant Crops:** Developing and planting drought-resistant crop varieties helps maintain agricultural productivity with less water.
- **Efficient Irrigation:** Techniques such as drip irrigation and rainwater harvesting optimize water usage in agriculture.

8. Community-Based Resource Management

- **Local Stewardship:** Engaging local communities in managing natural resources ensures that water management practices are sustainable and culturally appropriate.
- **Knowledge Sharing:** Traditional knowledge and modern science can be combined to enhance water management practices.

9. Biodiversity Conservation

- **Protecting Species:** Conserving aquatic and terrestrial species that play a role in water regulation helps maintain ecosystem balance.
- **Habitat Restoration:** Restoring habitats such as mangroves and coral reefs can protect shorelines from erosion and maintain water quality.

10. Integrated Water Resources Management (IWRM)

- **Holistic Approach:** IWRM promotes coordinated development and management of water, land, and related resources to maximize economic and social welfare without compromising ecosystem sustainability.

For Food security

1. **Agroforestry:** Integrating trees and shrubs into agricultural landscapes to enhance soil fertility, reduce erosion, and provide shade and habitat for beneficial species, thereby boosting crop yields and diversity.
2. **Sustainable Agricultural Practices:** Implementing crop rotation, intercropping, and conservation tillage to maintain soil health, reduce pests, and increase resilience to climate variability.
3. **Water Management:** Utilizing rainwater harvesting, constructing check dams, and maintaining wetlands to ensure efficient water use, enhance groundwater recharge, and reduce the impact of droughts.
4. **Soil Conservation:** Employing contour farming, terracing, and the use of cover crops to prevent soil erosion, improve soil structure, and enhance nutrient availability.
5. **Biodiversity Conservation:** Protecting and restoring native habitats to preserve pollinators and natural pest predators, which are essential for crop production and ecosystem health.
6. **Restoration of Degraded Lands:** Rehabilitating lands that have been degraded by overuse or



mismanagement through reforestation, grassland restoration, and the reintroduction of native species.

7. Integrated Pest Management (IPM): Reducing the reliance on chemical pesticides by using a combination of biological, cultural, and mechanical methods to control pests and diseases.

8. Community-Based Resource Management: Engaging local communities in the management and decision-making processes to ensure sustainable use of resources and enhance food security at the local level.



9. Climate-Smart Agriculture: Adopting agricultural practices that increase productivity and resilience to climate change while reducing greenhouse gas emissions.

10. Agrobiodiversity: Promoting the use of a variety of crops and livestock breeds to reduce risk and increase resilience to pests, diseases, and changing climatic conditions.

For Fodder security

1. Agroforestry and Silvopasture: Integrating trees and shrubs with pasturelands to provide shade, enhance soil fertility, and offer a diverse source of fodder throughout the year.

2. Rotational Grazing: Managing grazing patterns to prevent overgrazing, allowing pasturelands to recover, maintaining soil health, and ensuring a continuous supply of nutritious fodder.

3. Forage Crop Cultivation: Planting and managing high-quality forage crops such as alfalfa, clover, and grasses to provide a reliable and nutritious food source for livestock.

4. Water Management: Implementing practices such as rainwater harvesting, constructing ponds, and maintaining wetlands to ensure adequate water supply for forage crops and pastures.



5. **Soil Conservation:** Employing techniques like contour plowing, terracing, and cover cropping to prevent soil erosion, enhance soil fertility, and improve the growth of forage plants.
6. **Biodiversity Conservation:** Protecting and promoting a variety of plant species in pastures to improve resilience against pests, diseases, and climate variability, and to provide a diverse diet for livestock.
7. **Restoration of Degraded Lands:** Rehabilitating overgrazed or degraded pastures through reseedling, controlled grazing, and erosion control measures to restore productivity and fodder availability.

8. **Integrated Pest Management (IPM):** Using biological, cultural, and mechanical methods to control pests and diseases in forage crops, reducing the need for chemical interventions and ensuring healthy fodder.



9. **Community-Based Resource Management:** Involving local communities in managing grazing lands and water resources to promote sustainable practices and ensure equitable access to fodder resources.

10. **Climate-Resilient Practices:** Adopting drought-resistant forage species, improving irrigation efficiency, and implementing adaptive grazing strategies to cope with climate change impacts.
11. **Perennial Forage Systems:** Establishing perennial forage crops that provide long-term fodder solutions, reducing the need for frequent replanting and enhancing ecosystem stability.



12. Nutrient Management: Applying organic fertilizers and compost to improve soil fertility, promote healthy forage growth, and ensure a consistent supply of high-quality fodder.

For Fuel security

- 1. Agroforestry:** Integrating trees and shrubs into agricultural systems to provide a sustainable source of fuelwood and reduce pressure on natural forests.
- 2. Sustainable Forest Management:** Implementing practices such as selective logging, reforestation, and afforestation to ensure a continuous and renewable supply of fuelwood while preserving forest ecosystems.
- 3. Bioenergy Crops:** Cultivating fast-growing energy crops like switch-grass, miscanthus, and bamboo specifically for biofuel production to diversify and secure fuel sources.
- 4. Community Woodlots:** Establishing community-managed woodlots where local populations can sustainably harvest fuelwood, reducing reliance on distant forests and promoting local stewardship.
- 5. Efficient Cooking Technologies:** Promoting the use of improved cook-stoves and energy-efficient technologies to reduce the amount of fuelwood needed for cooking and heating, thereby conserving resources.
- 6. Agro-residue Utilization:** Encouraging the use of agricultural residues such as straw, husks, and manure as alternative bioenergy sources to reduce dependence on wood fuel.
- 7. Biogas Production:** Implementing small-scale biogas systems that convert organic waste and animal manure into biogas, providing a renewable and clean source of energy for cooking and heating.
- 8. Charcoal Production:** Supporting sustainable charcoal production methods, such as using efficient kilns and promoting practices that minimize environmental impact.
- 9. Reforestation and Afforestation:** Planting trees on degraded lands and in deforested areas to restore ecosystems and increase the availability of biomass for fuel.



10. **Integrated Land Use Planning:** Coordinating land use to balance the needs for agriculture, forestry, and fuel production, ensuring sustainable resource management.
11. **Promoting Native Species:** Using native plant species for fuelwood to maintain local biodiversity and ensure that fuel production is suited to local ecological conditions.
12. **Education and Community Engagement:** Educating communities about sustainable fuel management practices and involving them in decision-making processes to ensure long-term adherence and success.

For Biodiversity security

1. **Habitat Protection and Restoration:** Preserving existing natural habitats and restoring degraded ones to provide a safe haven for species and maintain ecosystem functions.
2. **Establishment of Protected Areas:** Creating and effectively managing national parks, wildlife reserves, and marine protected areas to safeguard critical habitats and species.
3. **Sustainable Land Use Practices:** Implementing agricultural and forestry practices that minimize habitat destruction, such as agroforestry, conservation tillage, and sustainable logging.
4. **Invasive Species Control:** Monitoring and managing invasive species to prevent them from outcompeting native species and disrupting ecosystems.
5. **Biodiversity Corridors:** Establishing ecological corridors to connect fragmented habitats, allowing species to migrate, disperse, and maintain genetic diversity.
6. **Community-Based Conservation:** Engaging local communities in conservation efforts, ensuring that they benefit from and participate in the sustainable management of biodiversity resources.
7. **Pollution Control:** Reducing pollution through better waste management, reduced chemical use, and sustainable industrial practices to protect ecosystems and species health.
8. **Climate Change Mitigation and Adaptation:** Implementing strategies to reduce greenhouse gas emissions and enhance ecosystem resilience to climate change, such as reforestation and wetland restoration.
9. **Sustainable Harvesting:** Regulating the harvesting of wild plants and animals to ensure it is done sustainably, without depleting populations or damaging ecosystems.
10. **Ex-situ Conservation:** Supporting botanical gardens, seed banks, and captive breeding programs to preserve genetic diversity and assist in species recovery efforts.
11. **Research and Monitoring:** Conducting scientific research and monitoring biodiversity to inform conservation strategies and track the effectiveness of management practices.
12. **Policy and Legislation:** Advocating for and enforcing laws and policies that protect biodiversity, such as endangered species legislation and habitat conservation plans.

13. **Education and Awareness:** Raising awareness about the importance of biodiversity and promoting conservation practices through education and outreach programs.
14. **Integrating Traditional Knowledge:** Incorporating indigenous and local knowledge into biodiversity management practices to enhance conservation efforts and respect cultural heritage.

For Soil security

1. **Conservation Tillage:** Reducing or eliminating plowing to minimize soil disturbance, which helps maintain soil structure, prevent erosion, and increase organic matter.
2. **Cover Cropping:** Planting cover crops such as legumes, grasses, and clover during off-seasons to protect the soil from erosion, improve soil fertility, and enhance moisture retention.
3. **Agroforestry:** Integrating trees and shrubs into agricultural landscapes to reduce erosion, improve soil structure, enhance nutrient cycling, and increase organic matter.
4. **Crop Rotation:** Alternating different crops in a sequence on the same field to improve soil health, reduce pest and disease cycles, and enhance nutrient availability.
5. **Terracing:** Constructing terraces on slopes to reduce soil erosion, retain water, and create flat areas for cultivation.
6. **Contour Farming:** Plowing and planting along the contour lines of slopes to reduce water runoff and soil erosion.
7. **Organic Farming:** Using organic fertilizers, compost, and natural pest control methods to improve soil fertility and structure without relying on synthetic chemicals.
8. **Mulching:** Applying a layer of organic or inorganic material on the soil surface to reduce erosion, retain moisture, and add organic matter as it decomposes.
9. **Reforestation and Afforestation:** Planting trees on degraded lands and in deforested areas to stabilize the soil, improve water retention, and enhance soil fertility.
10. **Wetland Preservation and Restoration:** Protecting and restoring wetlands to improve water filtration, reduce erosion, and enhance soil moisture levels.
11. **Integrated Pest Management (IPM):** Using a combination of biological, cultural, and mechanical methods to control pests and diseases, reducing the need for chemical inputs that can harm soil health.
12. **Composting:** Recycling organic waste into compost to enhance soil organic matter, improve soil structure, and increase nutrient availability.
13. **Erosion Control Measures:** Implementing practices such as planting windbreaks, grassed waterways, and constructing check dams to reduce soil erosion and sediment loss.

14. **Soil Testing and Monitoring:** Regularly testing soil to monitor its health and nutrient levels, enabling informed management decisions to maintain soil fertility and structure.
15. **Restoration of Degraded Lands:** Rehabilitating degraded lands through techniques such as gully plugging, check dams, and planting native vegetation to restore soil health and productivity.

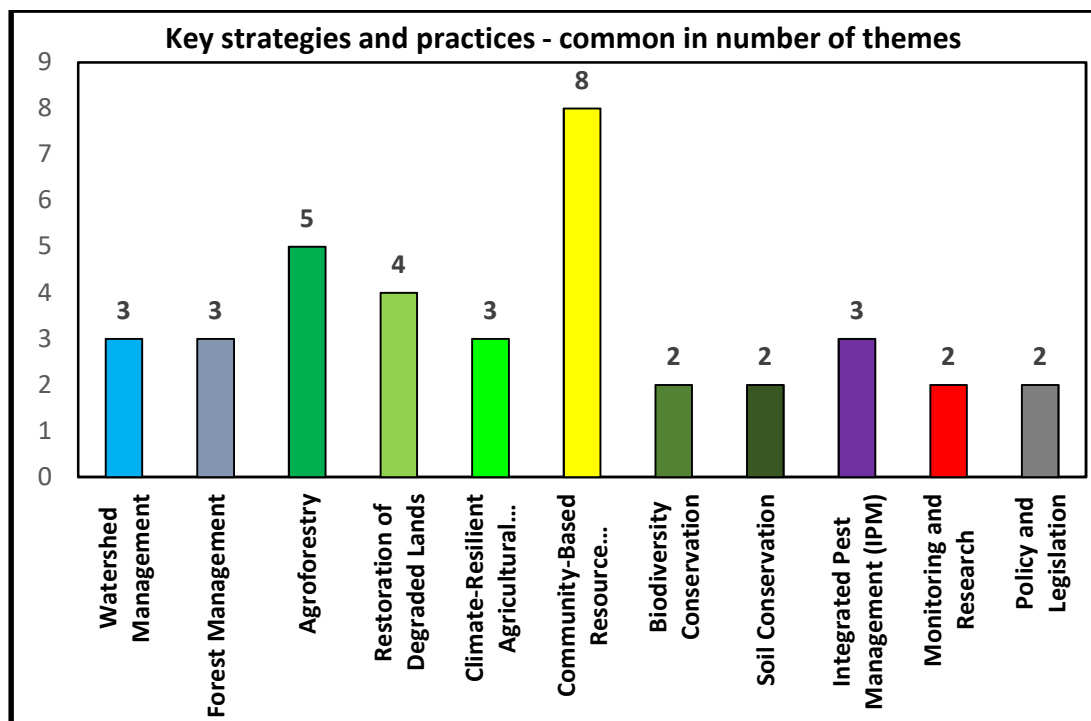
For Forest security

1. **Sustainable Forest Management:** Implementing practices that balance ecological, economic, and social needs, such as selective logging, reduced impact logging, and continuous cover forestry.
2. **Reforestation and Afforestation:** Planting trees on deforested and degraded lands to restore ecosystems, increase biodiversity, and enhance carbon sequestration.
3. **Forest Protection and Conservation:** Establishing protected areas, national parks, and reserves to safeguard critical habitats and ecosystems from deforestation and degradation.
4. **Community-Based Forest Management:** Engaging local communities in the stewardship and management of forests to ensure sustainable use and conservation, providing economic benefits and fostering local ownership.
5. **Agroforestry:** Integrating trees and shrubs into agricultural systems to improve land productivity, enhance biodiversity, and provide additional resources such as fuelwood and fodder.
6. **Fire Management:** Implementing controlled burns, firebreaks, and other fire management techniques to reduce the risk of uncontrolled wildfires and maintain forest health.
7. **Biodiversity Conservation:** Protecting and promoting the diversity of plant and animal species within forests to ensure ecosystem resilience and stability.
8. **Invasive Species Control:** Monitoring and managing invasive species to prevent them from outcompeting native species and disrupting forest ecosystems.
9. **Restoration of Degraded Forests:** Rehabilitating areas affected by logging, mining, or other disturbances through planting native species, controlling erosion, and managing invasive species.



10. **Climate Change Adaptation and Mitigation:** Enhancing forest resilience to climate change through practices such as assisted migration, promoting genetic diversity, and managing for climate-adaptive species.
11. **Non-Timber Forest Products (NTFPs) Management:** Sustainable harvesting of NTFPs like fruits, nuts, resins, and medicinal plants to provide economic incentives for forest conservation.
12. **Monitoring and Research:** Conducting regular assessments of forest health, biodiversity, and ecosystem services to inform management decisions and adapt practices as needed.
13. **Policy and Legislation:** Developing and enforcing policies and laws that support sustainable forest management, combat illegal logging, and promote conservation efforts.
14. **Education and Awareness:** Raising awareness among stakeholders about the importance of forests and sustainable practices through education and outreach programs.
15. **Payment for Ecosystem Services (PES):** Implementing PES schemes to provide financial incentives for landowners and communities to manage forests sustainably and conserve ecosystem services.

Common Key strategies and Practices in 7 Themes



Key strategies and practices involved in natural ecosystems management

Water Security	Food Security	Fodder Security	Fuel Security	Forest Security	Biodiversity Security	Soil Security
Watershed Management	Agroforestry	Agroforestry and Silviculture	Agroforestry	Sustainable Forest Management	Habitat Protection and Restoration	Conservation Tillage
Wetlands Conservation	Sustainable Agricultural Practices	Rotational Grazing	Sustainable Forest Management	Reforestation and Afforestation	Establishment of Protected Areas	Cover Cropping
Forest Management	Water Management	Forage Crop Cultivation	Bioenergy Crops	Forest Protection and Conservation	Sustainable Land Use Practices	Agroforestry
Agro-ecology	Soil Conservation	Water Management	Community Woodlots	Community-Based Forest Management	Invasive Species Control	Crop Rotation
Urban Green Infrastructure	Biodiversity Conservation	Soil Conservation	Efficient Cooking Technologies	Agroforestry	Biodiversity Corridors	Terracing
River Basin Management	Restoration of Degraded Lands	Biodiversity Conservation	Agro-residue Utilization	Fire Management	Community-Based Conservation	Contour Farming
Climate-Resilient Agricultural Practices	Integrated Pest Management (IPM)	Restoration of Degraded Lands	Biogas Production	Biodiversity Conservation	Pollution Control	Organic Farming
Community-Based Resource Management	Community-Based Resource Management	Integrated Pest Management (IPM)	Charcoal Production	Invasive Species Control	Climate Change Mitigation and Adaptation	Mulching
Biodiversity Conservation	Climate-Smart Agriculture	Community-Based Resource Management	Reforestation and Afforestation	Restoration of Degraded Forests	Sustainable Harvesting	Reforestation and Afforestation
Integrated Water Resources Management (IWRM)	Agrobiodiversity	Climate-Resilient Practices	Integrated Land Use Planning	Climate Change Adaptation and Mitigation	Ex-situ Conservation	Wetland Preservation and Restoration
		Perennial Forage Systems	Promoting Native Species	Non-Timber Forest Products (NTFPs) Management	Research and Monitoring	Integrated Pest Management (IPM)
		Nutrient Management	Education and Community Engagement	Monitoring and Research	Policy and Legislation	Composting
				Policy and Legislation	Education and Awareness	Erosion Control Measures
				Education and Awareness	Integrating Traditional Knowledge	Soil Testing and Monitoring
				Payment for Ecosystem Services (PES)		Restoration of Degraded Lands

SPWD is involved in implementation at one hand and in planning and research & development (R & D) on other hand. **The Western Regional Office (WRO)** has been actively monitoring past projects in collaboration with partner organizations, leveraging over 37 years of experience in the region to prepare and submit project proposals to various agencies. At the Rajasthan state level, WRO is engaged in multiple groups, including the committee formed for policies under Grazing Land Ecology, the state Budget analysis group, and the Oran Forum. Additionally, WRO is involved in discussions on the status of common property management. WRO's activities extend to advocacy, action research, development, and data analysis, reflecting a comprehensive approach to regional development and policy-making.

Currently, WRO's regional approach focuses on several key issues: climate change adaptation, agricultural development with an emphasis on ecological agriculture, and the governance and rights issues related to common property resources, including land, water, and forests. Additionally, it addresses women's land rights and the role of youth across all these areas. Livelihood enhancement is also a critical component, aiming to improve the economic well-being of local communities. WRO also Pastoralists rights and their problem resolutions, CFR management plans under FRA and Climate resilient agricultural. These interconnected priorities reflect a holistic strategy to foster sustainable development and resilience in the region.

SPWD's **Eastern regional Office (ERO)** is working in the states of Jharkhand and West Bengal having the objectives of livelihood enhancement through watershed development and watershed based planning under MGNREGA and area development where it covers more than 5,000 household directly (beneficiaries) and around 15,000 HH indirectly. These works cover around 45,000 hectares of land over 200 villages. On the rights based and conflict resolution between man-animal conflicts zone in Jharkhand, SPWD is working in 226 villages with 4111 HH to transform their livelihood system through natural resource management assets creation.

GIS was deployed as a tool to enhance and deepen watershed and natural resource based planning process using participatory methods for the identification and prioritization of interventions, and e-design of structures and estimation of costs. The idea was to develop it into an end-to-end design process for developing GP level annual plans, five-year perspective plans and detailed project reports (DPRs) for key rural development programmes in a cost effective and low-tech manner with time efficiency and higher accuracy. This approach was being used by semi-technical people at GP and Block level. The initiative tried to integrate modern remote sensing (RS) and GIS approaches with local wisdom related to natural resources. The programme was being implemented in close coordination with the government line departments so as to help in scaling-up and mainstreaming. The key functionaries of MGNREGS responsible for planning and implementation were being provided adequate information and skills to perform their roles effectively. The functionaries at GP and, at times, Block level were being supported with formal training sessions to build their capacity.

Western Region (WRO)

The current regional approach in the Western Region focuses on several key issues. These include climate change adaptation, which aims to prepare and adjust agricultural and other systems to the changing climate. Agricultural development is pursued with a specific emphasis on ecological agriculture, promoting sustainable and environmentally friendly farming practices. Another critical area is the management of common property resources, such as land, water, and forests, with a focus on governance and rights issues. This includes ensuring equitable access and sustainable management of these resources. Additionally, there is a strong emphasis on women's land rights and the involvement of youth, recognizing their vital roles and contributions across all these aspects. Livelihood enhancement is also a significant focus, aiming to improve the economic well-being of the region's communities through sustainable practices and opportunities.

Monitoring of past projects with partner organizations involves regularly assessing the progress and outcomes of collaborative initiatives. This process includes evaluating whether the projects met their objectives, analyzing the effectiveness of implemented strategies, and identifying areas for improvement. The monitoring process often involves collecting data, conducting site visits, and engaging with stakeholders, including the partner organizations, beneficiaries, and community members. The insights gained from this monitoring help in refining future project plans, ensuring accountability, and maintaining transparent and effective partnerships.

Drawing from over 30 years of experience working in the region, project proposals are being developed and submitted to various agencies. These proposals are informed by a deep understanding of the local context, challenges, and opportunities. The extensive experience in the region provides a solid foundation for designing projects that address critical issues such as sustainable agriculture, resource management, and community development. The aim is to secure funding and support to implement initiatives that can bring about meaningful and lasting improvements in the region.

WRO is also involved in various groups formed at Rajasthan state level.

- a) With reference to the Grazing land ecology - Policy Group in which SPWD is one of the members of this group - had a meeting at SPWD-WRO, Udaipur on 26th February 2024 to discuss the cross cutting Policies related to land and their importance and problems in dealing with the land issues at grass root level.
- b) In the discussion, ten pilot projects were proposed, covering two pilots in each agro-ecological region in Rajasthan. The Jaisamand Catchment area and the wetlands of Bharatpur, with a specific focus on grasslands, were proposed by the Society for Promotion of Wastelands Development (SPWD). The group is prepared to review and consider the works conducted by SPWD over the years.
- c) Previously 6-8 themes were identified which were to serve as the focal points for identifying legal and policy gaps. In this meeting, **additional themes** were identified for analysis as given in the table below:

Resource base	Livelihoods and Stewardship	Threats
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Grazing lands	Animal husbandry	Biofuel, Panchfal
Oran	R and R policies	Mining
Biodiversity (including role of biodiversity board)	MGNREGA	Solar energy
Grazing wetlands	Traditional knowledge	Invasive species
Water (surface and ground)	Gramdan (Bhoodan)	Land banks
Soil	Panchayati Raj	Protected areas
	Special groups: Women, youth, pastoralists	Climate change
		Encroachments
		Urban expansion

- d) It was proposed that a **three-level analysis** would be ideal for this exercise, encompassing an examination of national, state, and local laws.
- e) Given the complexity of laws and policies within each of the aforementioned themes, there was a discussion on adopting a **case-study approach**. The group will analyse the laws and policies applicable to a representative village, effectively capturing the narrative the policy group aims to identify and convey. By taking a landscape approach, the group can identify gaps, inconsistencies, and challenges within the legal and policy framework at different levels of governance.

To achieve this, it was proposed to develop two case studies for each of the five sub-regions in Rajasthan, resulting in a total of 10 cases. One case study can illustrate the **characteristics** of the region, while the other can address a **concern** or a threat. This insight is crucial for proposing and developing targeted policy interventions.

Suggested way forward:

1. Review the current document and propose necessary changes or additions.
2. The focus could be on both substantive discussions and logistical aspects on how the initiative can be taken forward. Further, identify overlaps and potential synergies with other working groups, particularly the case study group.
3. Organize a virtual meeting to delve into the idea's details.
4. Prepare a concept note and present it before the larger group.

Another group at state level have been formed in this year named **“Common Property Management in Central Rajasthan”** and SPWD is a member in this group. This group is particularly focusing on common grazing land and water bodies. The objectives of the group are follows:

1. To identify different actors who are involved in management and development of commons in Rajasthan particularly in Central Rajasthan.
2. To share issues encountered in commons exploitation especially common grazing lands, water bodies like Talabs, Naadis and Rivers.
3. Creating a platform to hear the voices/problems, issues of field functionaries, sharing of experience and working out the connecting to the solutions pathways.

Objective 1: To identify Different Actors in Commons Management and their roles

- Conducted a comprehensive mapping of individuals, organizations, and government bodies involved in the management and development of commons.
- Identified their roles, responsibilities, and contributions to commons management and
- Highlighted the diversity of actors, including local communities, government agencies, NGOs, and other stakeholders.

Objective 2: To share Issues Encountered in Commons Exploitation

- Facilitated a platform for partners to share their experiences and challenges related to commons exploitation and issues of livelihood with a specific focus on grazing lands and water bodies such as Talabs, Naadis, and Rivers.
- It was planned to document and categorize the issues raised to gain a thorough understanding of the challenges faced and
- An analysis has to be done to know the impact of exploitation on the sustainability of commons.

Objective 3: Create a Platform for Voicing Concerns and Solutions

- Need was felt to foster an open and inclusive dialogue where field functionaries can voice their concerns and share experiences.
- A need was felt to encourage the sharing of potential solutions and best practices among participants and
- A regional (central Rajasthan level) and at state level platform was also made to facilitate collaborative discussions to work out pathways for addressing identified issues.

SPWD raised the issues related to the management, protection and conservation of the commons in light with existing policies and violation of these acts and policies and the provisions, which are available to the rural community to get benefits from these commons. Experiences were also shared of the status of SPWD's projects being supported in the past to the partner organizations for Pastureland development. Issues of Bio-fuel Policy, Mining and Solar parks along with wind mills were also being discussed by SPWD.

SPWD (Juned Khan Komal) is being selected by the group at the **State Level Platform** on Commons. The other members of the State Level Platform are – Retd. Prof. P Kavoori, Mr. Dinesh Vyas (CASA), Ms. Priyanka Sinsinwar (CEE), Mr. Viren Lobo (IELA), RAJMERU (a network) & a representative of Manjari .

(A) Another group is being formed around **ORANS**, and SPWD is also a member of this group.

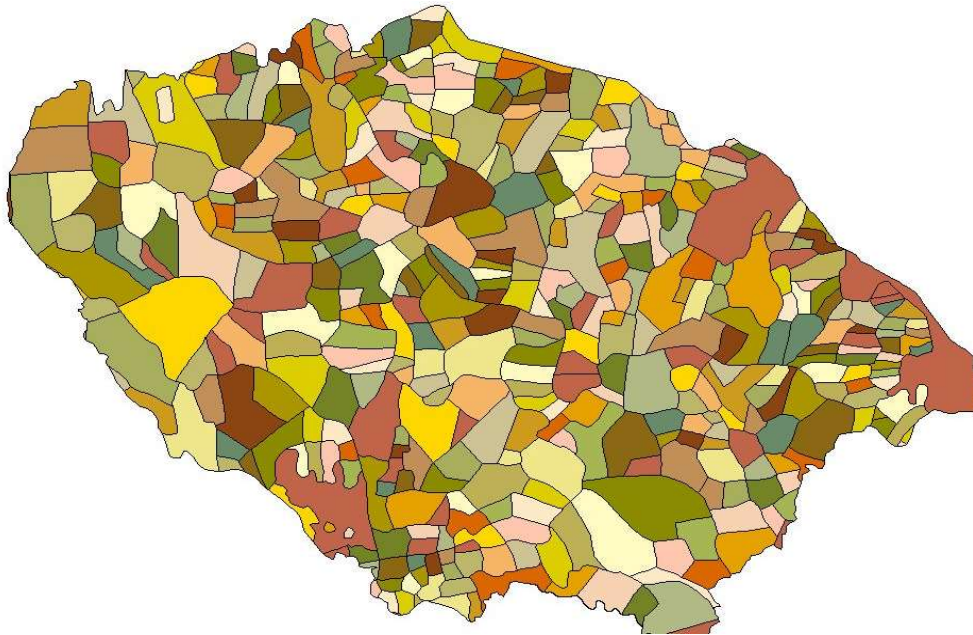
(B) SPWD participated in the **State Budget analysis group** meeting at state level and express concerns regarding Rainfed Agriculture budget in the Major budget head Agriculture. SPWD expressed that – rainfed agriculture is the major production season, accounting for 90% of millet, 80% of oil seeds, and 60% of cotton production. Nearly 40% of the population and 60% of livestock depend on rainfed agriculture. Pastures rely entirely on the rainfed season, providing fodder for both large and small ruminants.

Area under crops and production Rajasthan - 2018-19

Crops	Kharif Season			Rabi Season			Difference (Kharif - Rabi)	
	Area (in ha.)	Production (In tons)	Productivity (Kg/ha.)	Area (in ha.)	Production (In tons)	Productivity (Kg/ha.)	Area (in ha.)	Production (In tons)
Food grain	5769315	6586627	1142	3225871	12779573	3962	2543444	-6192946
Pulses	4274548	1867658	437	1631449	1890887	1159	2643099	-23229
Oil seeds	1983595	2835911	1430	2822959	4821105	1708	-839364	-1985194
Others	16383256	14811324	904	9364161	21467239	2292	7019095	-6655915
Total	28410714	26101520	978.25	17044440	40958804	2280.25	11366274	-14857284

According to the above table – there is a vast difference in production in Kharif & Rabi. The area under Kharif which is rainfed has 60% more than Rabi season but productivity is 42% to Rabi Season. Therefore, there is an ample scope for kharif season to enhance the production and we require the budget provisions for inputs to kharif season crops.

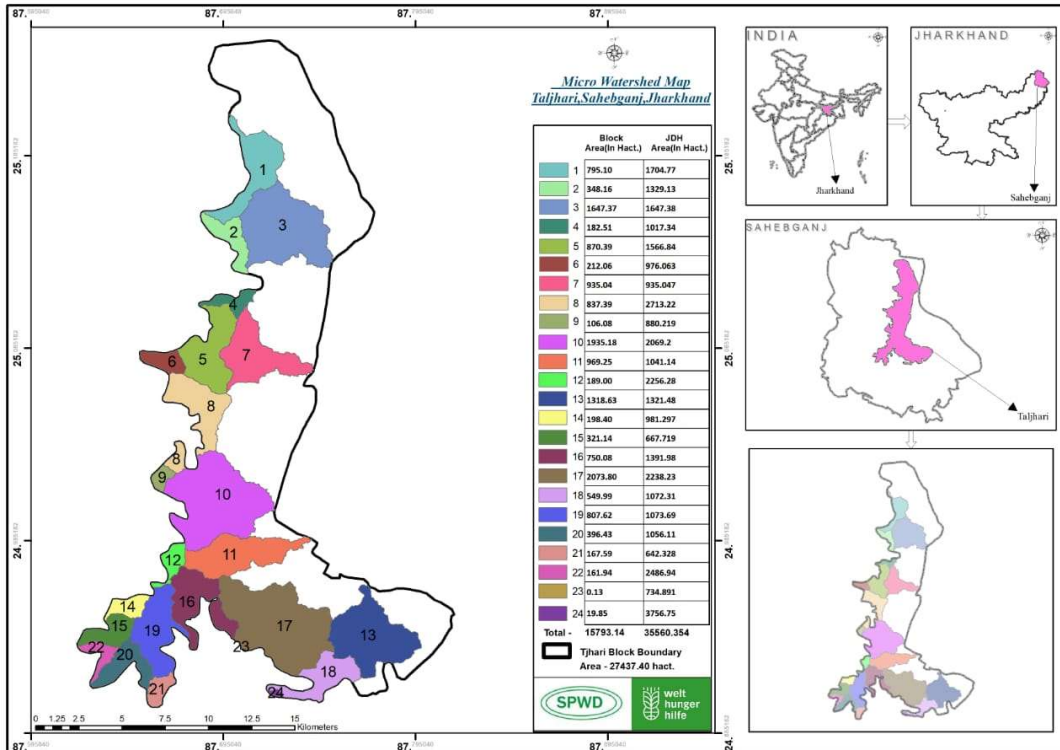
Village map of Jaisamand Catchment Area; Udaipur (Rajasthan)



The Eastern Region

Climate Resilient Farming System for Improved Livelihoods of Tribal Families in Purulia

Location of the Project: Pundagh – Joypur Block of Purulia District



Activities and accomplishment

- 1. River Lift Irrigation (RLI) Points:** The River Lift Irrigation points have been installed to enhance irrigation capabilities in Asaniya and Narandih.
- 2. Check dam Linkage:** The RLI points are strategically linked with the checkdam, optimizing water usage for agricultural purposes.
- 3. Electrification:** The electrification process for these points has been completed, ensuring a reliable and sustainable source of power for the irrigation system.

Impact: The completion of these projects signifies a significant improvement in the irrigation infrastructure for both villages. Farmers can now access a more efficient and reliable water supply for their agricultural needs.

The successful completion of the River Lift Irrigation points at Asaniya and Narandih, along with the associated check dam linkage and electrification, marks a milestone for boosting agricultural capabilities for crop production and ensuring a sustainable water supply for the communities throughout the year. In both Asaniya and Narandih villages, **Water User Groups** have been formed. These groups play crucial role in managing and distributing water within the villages for different crops throughout the year.

Responsibilities: The primary responsibility of these groups is to ensure fair water distribution among the villagers. For this they maintain a logbook register that records important details such as the farmer's name, start and stop times of water supply, meter readings, and other relevant information.

Purpose of Pump Log-book: The logbook helps keep track of how much water each farmer is using. This information is then used to calculate individual farmer's charges. By maintaining this record transparency and accuracy in water distribution will be ensured which will make it easier for everyone who are involved. The practice of maintaining registers ensures aversion of conflict.

Facilitation Centre: This center serves as the primary processing unit for twenty-four villages, covering various clusters. The focus is on establishing Farmer Producer Organizations/Companies (FPO/FPC)/ Farmers' Cooperative by sourcing crops/produce from farmers in these villages. To provide additional space for operations, the construction of the second floor was done. Now the ground floor will accommodate machinery and the first floor will be used to stock and packaging unit. The completion of the second-floor extension at **cluster facilitation Center** is a significant step toward enhancing processing capabilities. In future the facilitation center will have active engagement of farmers from twenty-four villages to foster collaboration through FPO/FPCs, and ensuring a streamlined process for crop/produce collection, processing and linking with the market to ensure maximum possible return to the primary producers.

Water Resource Development:

Water Infrastructure Initiatives to Alleviate water Crisis in Arid Villages of Joypur. The recurring drought crisis in the arid region has significantly impacted agricultural practices, rendering farming unprofitable due to water scarcity. To address this ongoing challenge, water infrastructure initiatives were launched in 2023 across four different villages.

1. **Two New Check Dams (Shushnisih & Hatinada):** Implemented to enhance water conservation and storage, aiding in sustainable agricultural practices. The construction of the Check Dams at Shushnidih and Hatinada have been successfully completed.
2. **Three New Wells (Shushnidih, Chhakudih & Tatuara):** The ongoing excavation of three wells aims to leverage the success of wells in promoting vegetable cultivation, particularly in highland regions. These wells serve as vital water sources, supplying water during extreme summers, fostering income generation through cash crop cultivation, and contributing to

positive changes in household economies. At village Tatuara the well has been completed and at rest other two wells the work is under process.

3. **Two New Ponds (Damrughutu & Tatuara):** The construction of the pond at Tatuara is completed. At Damrughutu the excavation work delayed due to hard stone layer found there. These ponds will improve water retention and availability during dry periods and will support both in agricultural as well as to the community needs.
4. **Intake Well (Narandih):** Despite initial progress, this project faced delays due to restrictions in sand supply and a late start caused by interruptions in fund flow. Presently, work is paused as the check dam is filled with water.

Crops cultivation and Income Details from different water sources

Sl. No.	Source of water	Name of Village	No of Farmers benefited	Income Kharif_2023	Income Rabi_2023	Gross Income	Investment	Net Income
1	Check dam	Asoniya	53	1174484.12	330284.00	1504768.12	601907.23	902860.89
2	Check dam	Behragora	52	448510.28	416004.00	864514.28	345805.73	518708.55
3	Check dam	Narandih	57	2038895.20	124800.00	2163695.20	865478.08	1298217.12
4	Well	Shushnidih	15	281284.80	46924.00	328208.80	131283.52	196925.28
5	Well	Damrughutu	8	220384.00	6948.00	227332.00	90932.80	136399.20
6	Pond	Gopinathpur	15	127775.10	114832.00	242607.10	97042.84	145564.26
7	Pond	Dhadhkidih	14	130947.20	0.00	130947.20	52378.88	78568.32
Total			229	4422280.70	1039792.00	5462072.70	2184829.08	3277243.62

Resource Group Involvement

Resource groups, being the representative bodies, took on the role of water user groups. Separate water user groups were not formed, considering the overlapping membership with resource groups. Resource groups initiated a **Community Contingency Fund** around newly constructed structures, ensuring financial sustainability for ongoing maintenance and development.

Climate Resilient Farming

(1) Establishment of Farmers Groups and Community Resource Persons

As of the project's commencement in 2022, a total of 48 farmer groups were formed in 12 villages, laying the foundation for organized agricultural activities at the village level. Regular fortnightly meetings were conducted to convey the purpose and roles of forming these groups. Over the past year, a comprehensive total of 48 farmers' groups were established, engaging 1177 individuals, with 776 being women and 401 men.

12 Community Resource Persons (CPRs) have been selected for a range of tasks aimed at enhancing community development, agricultural practices, and overall well-being in their respective villages. Their active involvement in the program, coupled with targeted training, positions them as valuable contributors to the success of the initiatives underway. Eight comprehensive training sessions on institutional strengthening have been successfully conducted, focusing on key areas such as data management, group dynamics, and the development of a roadmap for effective group functioning.

(2) Improved Rice Cultivation

Enhancing Paddy Cultivation through SRI and DSR Methods

The goal is to increase productivity and production sustainably by switching to the cutting-edge techniques to guarantee the region's agricultural prosperity in the long run. This programme, which aims to teach farmers about the advantages and workings of SRI and DSR methods, includes interactive demonstrations at both the village and central levels.

Weeder distribution: This year, we have started the process of distributing 50 weeders of different types across various villages and farmer groups. The weeders distributed last year played a significant role in achieving commendable results in crop cultivation. The feedback received from farmers highlighted the instrumental contribution of these tools in weed management, ultimately leading to improved yields.

(3) Improved Upland-Cultivation

Advancing Upland Cultivation for Nutrient-Rich Crops

Upland cultivation plays a pivotal role in addressing the nutritional needs of the villagers, offering a source of diverse crops. Traditionally, these uplands remain fallow, but recognizing their potential, the program has actively promoted and facilitated upland cultivation.

Crop Diversity and Allocations: The diversity of crops cultivated reflects a strategic approach to maximizing nutrient supply. The breakdown of crops and their respective allocations are as follows:

Name of the Village	Name of the crop	House Hold	Total Area (Acre)
Chhakudih, Sunadih, Gopinathpur, saniya, Behragora, Shiyalgara, Shushnidih, Tatuara, Damrughutu, Hatinada, Narandih, Dhadhkidi	Ground Nut	255	11.52
	Maize	315	58.20
	Arhar (Pigeon Peas)	240	39.87
	Finger Millets	217	44.02
12 Villages	4 major crops	1027	153.61

Agriculture Department, Govt. of West Bengal Supported for Finger Millet Cultivation:

Agriculture Department, Govt. of West Bengal provided support of 25 kg finger millet seed. The finger millet seeds will be planted on a total of 30 acres of land in Asoniya, Shushnidih, Chhkudih, Gopinathpur, Narandih, Dhadhkidi, and Hatinada villages. Seed distribution and nursery work have been done, and the seedling will be planted in all places by the SRI method. The department said they will buy back the produce as well. If the department buys the produce, then they will encourage this system in future also, and the cultivation of finger millet can be taken further. Also, in 12 villages, we are doing finger millet cultivation on 10 acres of land.

Improved farming practices in the highland: -

In the uplands, where crops have been taken in the kharif season. In all the crops, the practise of seed sorting and treatment has been followed to reduce the chances of insect, pest, and disease attacks on these crops. Groundnut, finger millet, maize, and pulses have been taken in the uplands, where distance and line sowing principles have been followed. This has resulted in a better yield than they had been getting by not practising these principles.

Training on integrated Agriculture System: -

The capacity building programme on integration of various subsystem has been transferred through the capacity building programmes. How integration of the subsystem will help to reduce the cost of cultivation and along with that it also helps in minimizing the negative effects of the climate which usually results in the failure of the crops.

Improved and sustainable cultivation methods: -

The programmes have helped the farmers to understand the basics of sustainability in the cultivation. The principles have been transferred to enrich them the benefits and the know-how

of practicing these in their farm. How sustainable practices at the farm level will help them to reap more benefit from what they have been taking in the process.

Promotion of drought-resistant varieties: -

In order to cope with the recurrent drought condition drought resistant varieties in cereals have been promoted this year like Paddy, Finger Millet, and Sowa & Maize.

Land & Farmers Details			
Sl. No.	Drought Resistant Varieties	Total No of Farmers	Total Land in Acre
1	Paddy	357	374.25
2	Finger Millet	227	32.25
3	Maize	332	69.31

Conservative tillage: - The promotion of conservative tillage practices has gained traction through targeted awareness sessions and community engagement. Approximately 100 households, covering 21.23 acres of land, have embraced biomass mulching and minimal tillage models. Positive farmer experiences and improved water use efficiency demonstrate the effectiveness of these practices. The hands-on learning approach has been pivotal, fostering a commitment to continued implementation. The initiative aims for the institutionalization of conservative tillage at the village level, emphasizing the role of community-driven learning for sustainable agricultural practices.

Kitchen gardens: - The Kitchen and Forest Gardens initiative has witnessed substantial growth, with an additional 90 households joining the existing 270 in establishing kitchen gardens. This expansion reflects a growing recognition of the initiative's benefits across various villages, such as Sunadih, Asaniya, Narandih, Damrugutu, Dhadkidih, Shushnidih, Chhakudih, Hatinada, SiyalGara, Majhidih Tatuara, Sunadih, and Gopinathpur.

Forest gardens in specific sites: - Forest Gardens are resembling with the food forests, were established in specific locations, notably in two combined patches spanning approximately 2.5 acres in Sunadih and Asaniya. Additionally, individual plots were utilized for plantation with 250 fruit-bearing trees (mango, guava, cashew, and lemon) contributing to this initiative. The approach involved a mix of community patches where benefits are shared among villagers through agreements and individual plots. Till now the survival rate of the plants is 94%.

To enhance biodiversity and nutritional contributions, 800 drumsticks and 250 papaya plants were also planted in Asaniya, Damrugutu, and Hatinada villages. The survival rate for drumstick

was 77%, and papaya was having 85% survival rate. The responsibility of maintaining these green spaces lies with the respective resource groups in each village.

Noteworthy is the approval and support received from the Agriculture Department, Govt. of West Bengal, for a 9-acre plantation in Behragora, Asaniya, and Narandih villages

Use of bio-fertilizers: - The adoption and application of organic fertilizers, particularly bio-fertilizers, have been actively promoted across the community. A substantial outreach effort has resulted in over 350 households embracing the use of bio-fertilizers, with tangible impacts observed across 50 acres of farmland. The distribution and application of specific bio-fertilizers include: Rhizobium: 110kg, Neem Oil: 150 litres, Trichoderma: 105 kg and Microphos: 385 kg.

Vermicomposting:- In 2023, the establishment of 20 vermicomposting plants yielded significant results as they are now fully operational and actively contributing to the agricultural landscape. Each compost pit yields an impressive harvest, averaging 300–400 kg or 3–4 quintals every three months.

Kitchen Waste Decomposer: - This approach not only tackles the issue of organic waste management but also promotes a sustainable way of recycling kitchen waste to benefit agricultural productivity. The engagement of 22 farmers in this practice indicates a positive response and adoption of environmentally friendly techniques within the community. Through the kitchen waste decomposer initiative, farmers gain access to a local source of nutrient-rich compost, reducing dependency on external inputs and contributing to the overall sustainability of agricultural practices in the region.

Liquid composting plants: - The establishment of liquid composting plants represents a proactive approach to utilize locally available resources such as cow urine, cow dung, leaves, and biomass for the production of liquid compost. In the previous year, 20 units of liquid composting structures were successfully implemented in new villages, including Chhakudih, Gopinathpur, Sunadih, Dhadkidih, and Tatuara.

Plasticulture: - The introduction of plasticulture practices, specifically the use of mulch foil in both Kharif and Rabi seasons, marks a significant stride in agricultural production. This practice has been implemented in five villages—Damrughutu, Chhakudih, Narandih, Asaniya, and Behragora with the active participation of 15 households.

Shade nets: - In the ongoing agricultural initiatives, the installation of shade nets has been implemented in seven villages: Dhadkidih, Hatinada, Damrughutu, Chhakudih, Gopinathpur, Narandih, and Sunadih. The primary purpose of these shade nets is to facilitate nursery raising,

providing an environment conducive to optimal seed germination and plant growth. This strategic approach enhances the overall quality of saplings, contributing to successful cultivation practices.

Mulch foils: - Mulching practices have been actively demonstrated in several farms to showcase the tangible benefits to farmers. The emphasis is on helping farmers realize the positive impact of mulching on soil health and crop cultivation. Mulch foils are employed to cover the soil, showcasing the advantages of this agricultural practice.

Drip irrigation: - Drip irrigation, a water-efficient method, has been successfully implemented in new project villages under the Pradhan Mantri Krishi Sinchayee Yojna (PMKSY). 15 farmers received drip irrigation sets for 1 acre of land, and one person received it for one hectare. The government has provided these micro-drip irrigation sets with subsidise prices.

Alternative Livelihoods

Livestock Rearing :- Alternative Livelihoods, training programs on small ruminants, birds, and fish rearing and management have been initiated in 2023 and continued into 2024. In 2024, (74goats were given to the 37 household) beneficiaries and 3 in process and ducks were also given to 150 beneficiaries households.

Training and exposure visits from the programme team

- One of the programme staff have undergone training on BMZ Financial Administration and Risk Management from 19-21 April 2023 organized by KKID- Coimbatore.
- On 10-12-2023 to 14-12-2023, three representatives from the SPWD-KKS project team visited Kardom Farmers Producer Company Ltd to conduct a comprehensive study of their oil mill operations. This report outlines key findings across various aspects of the oil extraction process, quality control measures, input materials, production capacity, technological innovations, waste management, supply chain integration, regulatory compliance, challenges and opportunities, community impact, training initiatives, and market trends.

Transforming Lives through Farming: **The Inspiring Journey of Sanjhu Singh**

Family Background: Sanjhu Singh's roots lie in a humble and economically disadvantaged family. She is a member of a family of five, where her husband, Direndranath Singh, works as a mason, primarily taking on contracts as a local contractor or working as a daily wage worker. The livelihood of the entire family depends on his income and due to which there is a significant burden on their shoulders.

In addition to Sanjhu and her husband, their



family consists of two young children, both attending a government primary school. In the face of economic challenges, the family has come to rely heavily on agriculture as their primary source of income and sustenance.



Village Background: The Singh family resides in the village of Narandi, which is located in the border area of West Bengal. This village, nestled in a remote and rural

setting and is approximately 60 kilometers away from their home district of Purulia. The village is situated 25 kilometers from the block development office, making it a relatively remote and isolated region.



Narandih is 2.5 kilometers away from the nearest branch road, which underscores the limited accessibility of the resources to the community. The village's rural character and geographical remoteness add to the challenges faced by its residents, including the Singh family. Despite these obstacles, agriculture remains the primary means of livelihood and sustenance for the families in Narandi.



Over time, the excessive use of these chemicals led to diminishing crop yields and, more critically, a declining interest in agriculture. Yet, a ray of hope shone when Sanjhu attended a meeting organized by the Society for Promotion of Wastelands Development (SPWD) on organic farming. This pivotal event introduced her to the concept of chemical-free farming and the



patiently embarked on a journey of persuasion, delineating the potential benefits and the harm inflicted by excessive chemical use. Through her unwavering commitment, she gradually succeeded in winning over her family's support.

A Welcomed Transition: As Sanjhu embarked on her journey into natural farming, her immediate community and her own household began to appreciate the change. Many individuals in her area rallied behind her, providing support and encouragement as she embraced new techniques, such as mulching and drip irrigation. They recognized the potential benefits of sustainable agriculture and rallied behind her efforts.

Farming Back Then and the Winds of Change: Sanjhu's journey into agriculture commenced during her childhood, as she keenly observed her family's traditional farming practices. However, it wasn't until the last five to six years that she contemplated a significant transformation. The conventional farming methods they had been employing came with substantial costs, particularly in terms of purchasing seeds and chemical fertilizers.



potential benefits it offered both humans and the soil.

Support and Resistance: At the inception of her journey, Sanjhu encountered resistance from her own family, deeply entrenched in the belief that chemical fertilizers were indispensable for successful farming. Sanjhu

Observing On-Farm Ecosystem

Improvements: One of the most rewarding aspects of Sanjhu's transition to natural farming was the evident improvement in her on-farm ecosystem. Through the judicious use of various bio inputs such as Amrit Jal, Matka Khad, Sasyagavya, Vermicompost, and Liquid compost, she witnessed advancements in soil health. These bio inputs not only enhanced soil



fertility but also raised micronutrient levels, resulting in remarkably flavorful crops. Sanjhu's surplus produce even found a place in the local market, becoming a testament to the success of her endeavors.



Family and Community Support: Over time, Sanjhu's husband and family became not only supportive but immensely proud of her journey as they witnessed the transformative outcomes of natural farming. They joined her in experimenting with natural farming

techniques on their own farm plot, further solidifying their commitment to chemical-free agriculture. On a broader scale, Sanjhu emerged as a change agent within her community. She became a source of inspiration, positively influencing other women within her group to embrace natural farming practices.

Innovation and Collaborations: Sanjhu's journey was marked by innovation. She fearlessly ventured into various practices, including seed conservation, input preparation, and marketing initiatives. These endeavors endowed her with a unique edge over conventional farmers, setting her apart. Additionally, she cultivated partnerships with institutions dedicated to promoting natural farming, which expanded her knowledge base and resources.



Balancing Work and Family: The management of on-farm work and household responsibilities presented its share of challenges. However, Sanjhu's indomitable spirit, coupled with the support of her family, facilitated a delicate balance that she skilfully maintained.

Overcoming Challenges: Sanjhu's journey was not without its trials. She faced challenges such as reduced crop yields, pest attacks, and domestic pressures during the transition phase. Yet, her unwavering determination and unyielding resolve to remain committed to natural farming propelled her forward.



Enjoyment and Message: What Sanjhu enjoys most in her journey is witnessing the tangible improvements in her farm's health and productivity.

Her message to aspiring women, and indeed anyone willing to listen, is clear: have faith, stay dedicated, and wholeheartedly embrace natural farming for a sustainable future.

Sanjhu's Diversified Crop Production and Income (in a year)

Subsystem	Types of Crops Produced	Annual Income (Approx.)
Vermicomposting	N/A	Income from Vermicomposting sales to neighbors – Rs.3000/-
Cowshed Concretization	N/A	Income from Bio fertilizer sales to neighboring farmers – Rs.2000/-
Livestock Rearing	Ducks, Hens, Cows, Goats	Income from sale of eggs, milk, and meat products – Rs.12000/-
Fish Farming (Pisciculture)	Various Fish Species – Ruhi, Katla	Income from sale of surplus fish in the local market – Rs.8000/-
Kitchen Garden	Vegetables and Herbs	Savings on family food expenses - Rs.12000/-
Vegetable Garden	Tomato, Brinjal, Cucumber Bitter Guard, Ridge guard, etc.	Income from selling surplus vegetables – Rs.30000/-
Paddy Cultivation	Paddy	Income from selling paddy in the market-Rs.18000/-
Upland Crops Cultivation	Groundnut, Maize, Finger Millet	Income from selling surplus crops in the market – Rs.5000/-

Promotion of farm and forest based natural resource management for livelihood security of marginal communities in villages around Palamu Tiger Reserve

Since the inception of the project, initial meetings were held in all villages to discuss the project's objectives. As part of the entry point activities, seven ponds and one well were renovated. Lac host plants were identified and pruned in the month of April. Five progressive farmers were selected to establish Farmer's Field Schools in each village. Recognizing the importance of cow urine for preparing organic inputs, the cow sheds of these farmers were paved to facilitate cow urine collection.



Before the kharif season, a Training of Trainers (ToT) on the System of Rice Intensification (SRI) and preparation of organic inputs was organized. Meetings were held at the hamlet (tola) level to explain the benefits and processes of SRI. During these meetings, videos on SRI were shown, and demonstrations of seed sorting and paddy seed treatment were conducted.



Paddy seeds of varieties IR 36, Birsamati Sungdha, and Tulaypanji, along with bio-fertilizers, were procured from Birsa Agriculture University.

During the rabi season, open-pollinated vegetable seeds were distributed to farmers, who then prepared and applied organic inputs to grow these vegetables. A group of 27 farmers was taken on a one-day exposure cum training visit to the Indian Institute of Natural Resins and Gum (NISA). To support lac cultivation, 2.5 quintals of lac seeds and other necessary implements, such as secateurs and sprayers, were purchased. The lac insects were inoculated onto 398 host plants, and pesticide and fungicide were applied twice according to the Standard Operating Procedures (SoP) for scientific lac cultivation. The lac insects are progressing well, having successfully completed their first life cycle and entered the second cycle. This year, 631 plants were pruned in preparation for the next cropping season.




A training session on the preparation of Mahuwa Laddu, Jam, Shakti powder, and pickles was organized, and seven women from Ker and Lukumkhad villages are now producing these items. In collaboration with the local forest department, a Nilambar Pitambar Sale counter was established in Palamu Tiger Reserve. The objective of this shop is to provide a platform for local farmers and artisans to sell their products to tourists, thereby supporting local livelihoods and promoting traditional products.

The National Land Coalition

Strategy Planning Meeting brought together the 14 diverse and well-connected member organizations or networks to discuss the new global strategy of the International Land Coalition (ILC) in the context of India. The purpose of the meeting was to reflect on past accomplishments and plan for the future in light of changing landscapes in all dimensions: politically, socially, economically, & environmentally. SPWD is one of the members of ILC (at international level) and Land forum India (LFI) at national level.

The ILC, with its 2030 strategy, aims to become an enabler by empowering National Land Coalitions in member countries for contextualized engagement on land rights. The new strategy focuses on three key areas: shifting power back to people, shifting attention to land rights as essential for achieving sustainable development goals, and shifting focus on data-driven advocacy for accountability.



NLC INDIA STRATEGY PLANNING MEETING
25-26 MAY 2023 | BHOPAL, MADHYA PRADESH
LAND FORUM INDIA

OVERVIEW

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The International Land Coalition, with its 2030 strategy, aims to become an enabler by empowering National Land Coalitions in member countries for contextualized engagement on land rights. The new strategy focuses on three key areas: shifting power back to people, shifting attention to land rights as essential for achieving sustainable development goals, and shifting focus on data-driven advocacy for accountability.

The significance of this meeting cannot be overstated. The group reconvened after a long hiatus to align their efforts with the new ILC strategy. Moreover, the hosting responsibilities for ILC in India have shifted from MARAC to Ekta Parishad with the welcoming of a new facilitator adding

THE NEW STRATEGY

During the session on the new strategy, Sara Manetto presented the key elements of ILC's 2030 Strategy, emphasizing the need to address pressing issues such as **climate change, inequality in land distribution, the concentration of power, and closing civic space**, as well as **unsustainable food systems**. The strategy called for a shift in power to the people and outlined three main approaches: **establishing national land coalitions, gathering people's data to hold governments and corporations accountable, and engaging in regional and global advocacy** that connects local and global issues, including the Sustainable Development Goals (SDGs). **Gender justice and defending the defenders** were identified as cross-cutting issues.

Following Sara's presentation, the group reviewed their previous strategy document in light of the changing landscapes. They reframed their goals for the next three years - till 2026. Based on the new goal, the group identified **three strategic intervention areas: climate change, common property rights, and livelihood enhancement**. These interventions will serve as the guiding principles with **advocacy** as a cross-cutting tool for the group's collective efforts to achieve people-centred land governance and ownership advocacy in India. The group divided itself into three to further detail out the three strategic areas.

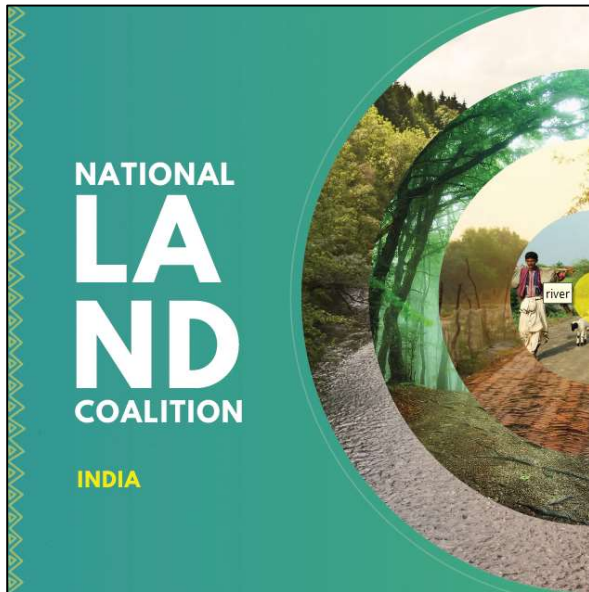
NATIONAL LAND COALITION INDIA REVISED GOAL

"A coalition that contributes to poverty reduction by ensuring land-tenure, restoration of the ecosystem, combating climate change, and better governance of common property resources by Dalits, tribals, pastoralists, minorities, and other marginalised groups with a particular focus on women and youth within the framework of the SDGs."



The group reconvened after a long hiatus to align their efforts with the new ILC strategy. Several decisions were made to strengthen the group's effectiveness. It was agreed that stronger communication channels and better documentation are essential for capturing and sharing the collective wisdom and experiences of the members. Advocacy was identified as a cross-cutting tool to bring forth more issues and advance the cause of people-centered land governance.

In conclusion, the meeting served as a crucial platform for member organizations to come together, align their efforts, and plan for the future. With a renewed sense of purpose and strategic focus, the group is well-positioned to address the challenges and opportunities in the realm of land rights, ensuring that the power is shifted back to the people, attention is given to land rights, and data-driven advocacy drives accountability.



GOOD GOVERNANCE

The group addressed several important topics to enhance the network's effectiveness, governance, and communication. They recognized the need for additional members to strengthen representation and leadership within the forum. It was agreed to identify alternate focal points, particularly women and youth, to participate in future meetings to widen the network's connections.

To improve communication and documentation, the group proposed various measures such as releasing frequent newsletters, reports, and organizing activities and sharing sessions. Ekta Parishad, with the new facilitator, will take the lead in documentation and communication and also maintain official records of each partner organization. The role of the new facilitator, Anand, was discussed, with a focus on redefining his terms of reference (TOR) to focus on ground engagement, core issues, and better communication plans. Field visits, documentation, capacity-building efforts on communication, and increased representation of the NLC in national and international forums were highlighted as important aspects by the group.

To streamline decision-making and accountability, the group established a Steering Committee, the newly formed Steering Committee consisted of Ekta Parishad, WGWLO, and SPWD, who will meet regularly to facilitate the activities, seek fundraising opportunities, etc. Other members will support and be accountable to the Steering Committee in implementing the strategy. With a common consensus, the group decided that 10% of all the funds raised with the help of the NLC will be directly used for strengthening it. The process for transferring those funds will be designed and supervised by the Steering Committee and national facilitator with the help of other members. Additionally, the group recognized the importance of mapping individual resources and strengths, sharing them among members, and exploring opportunities for collaboration at the state and national levels. Capacity-building efforts were encouraged to further empower and support each other. The group will take reference to the LF strategy document made in 2021 for better governance.

These discussions and decisions contributed to strengthening the governance and functionality of the network, fostering collaboration, and ensuring the long-term sustainability of their shared goals in realizing people-centred land governance in India.



To streamline decision-making and accountability, the group established a Steering Committee. The **newly formed Steering Committee** consisted of Ekta Parishad, WGWLO, and Society for Promotion of Wastelands Development (SPWD), who will meet regularly to facilitate the activities, seek fundraising opportunities, etc. Other members will support and be accountable to the Steering Committee in implementing the strategy.

SPWD TEAM
(As on March 31, 2024)

PROGRAMMES

S. No.	Name	Designation
1	Mr. Juned Khan Komal	Programme Director (Head Programmes)
2.	Mr. Sanjay Kumar	Sr. Programme Officer
3	Ms. Promila John	Sr. Administrative Executive
4	Ms. Alpna Sharma	Sr. Programme Executive
5	Mr. Sachin K. Dubey	Executive Accountant
6.	Mr. Ramesh Chand	Office Assistant and Driver

Projects

S.No.	Name of Staff	Project Designation	Project
1	Sanjay Kumar	Project Coordinator	KKS
2	Sachin Kumar Dubey	Executive Accountant	WHH/WWF
3	Vinod Kumar	Co PI /Watershed Expert-WHH	WHH/WWF
4	Ruhidas Kumar	Field Facilitator	KKS
5	Ganesh Mahato	MIS	KKS
6	Nihar Kumar Mahato	Technical Expert	KKS
7	Manju Majhi	Field Facilitator	KKS
8	Phalguni Hasda	Field Facilitator	KKS
9	Dulal Chandra Mahato	Accountant	KKS
10	Suchitra Soren	Field Facilitator	KKS
11	Malindra Soren	Field Facilitator	KKS
12	Budheshwar Tudu	Field Facilitator	KKS
13	Birbal Lohra	Driver	KKS
14	Nishi Khalkho	Office Assistant	GEN
15	Chhalimuddin Sekh	Watershed Expert	WHH
16	Ashish Kumar Dutta	Cluster Coordinator	WHH
17	Virmani Kumar	Cluster Coordinator	WHH
18	Sohan Pandit	Community Recourse Person	WHH
19	Rajkumar Pandit	Community Recourse Person	WHH
20	Natva Hembrom	Community Recourse Person	WHH
21	Manjhi Tudu	Community Recourse Person	WHH
22	Paul Murmu	Community Recourse Person	WHH
23	Haridhan Dutta	Community Recourse Person	WHH
24	Dipak Tudu	Community Recourse Person	WHH
25	Ajay Khalkho	Community Recourse Person	WHH
26	Aakash Toppo	Community Recourse Person	WHH
27	Subhash Lohra	Field Animator	WWF
28	Karamdev Singh	Field Animator	WWF
29	Usha Devi	Community Recourse Person	WWF
30	Bineshwar Singh	Community Recourse Person	WWF
31	Basant Yadav	Community Recourse Person	WWF
32	Shiv Mochi	Community Recourse Person	WWF
33	Dilkeshwar Singh	Community Recourse Person	WWF

List of Acronyms & Abbreviations

AH	Animal Husbandry
AISD	Asian Institute for Sustainable Development
AKM	Aajeevika Krishi Mitra
APSAC	Andhra Pradesh Space Applications Centre
ASCI	Agriculture Skill Council of India
BAS	Birsa Aajeevika School
BGRF	Backward Region Grant Fund
BTRT	Block Technical Resource Team
CBO	Community Based Organization
CEO	Chief Executive Officer
CFC	Cluster Facilitation Centre
CFT	Cluster Facilitation Teams
CFR	Community Forest Rights
CGARD	Centre for Geo-informatics Application in Rural Development
CMSA	Community Managed Sustainable Agriculture
CRP	Community Resource Person
DCF	Deputy Conservator of Forest
DD	Deputy Director
DLO	District Level Officer
DPR	Detailed Project Report
DSR	Direct Seeded Rice
DSS	Decision Support System
DTRT	District Technical Resource Team
EB	Environmental Benefits
EE	Executive Engineer
FD	Forest Department
FFS	Farm Field School
FRA	Forest Rights Act
FRC	Forest Rights Claims
GIS	Geographical Information Systems
GIZ	Gesellschaft für Internationale Zusammenarbeit
GoI	Government of India
GP	Gram Panchayat
GPS	Global Positioning System
GRS	Gram Rozgar Sevak
HDPE	High Density Polyethylene
HVVS	Hanuman Van Vikas Samiti
ICT	Information and Communication Technology
IEC	Information, Education and Communication
INRM	Integrated Natural Resources Management
ISRO	Indian Space Research Organization

JD	Joint Director
JSLPS	Jharkhand State Livelihood Promotion Society
JTA	Junior Technical Assistant
KKS	Karl Kubel Stiftung
LEISA	Low External Input Sustainable Agriculture
MIS	Management Information Systems
MJSA	Mukhyamantri Jal Swavlamban Abhiyan
MKSP	Mahila Kisan Shashaktikaran Pariyojna
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MoRD	Ministry of Rural Development
MWC	Mission Watershed Conservation
NGO	Non-Government Organization
NRLM	National Rural Livelihoods Mission
NRM	Natural Resources Management
NRSC	National Remote Sensing Centre
NTRT	National Technical Resource Team
OBC	Other Backward Castes
PS	Prayatna Samiti
PMAY	Pradhan Mantri Awas Yojana
PMSKY	Pradhan Mantri Krishi Vikas Yojna
PoP	Package of Practices
PRA	Participatory Rural Appraisal
PRI	Panchayati Raj Institution
PSB	Phosphate Solubilizing Biofertilizers
RS	Remote Sensing
SBM	Swacch Bharat Mission
SC	Scheduled Castes
SCI	System of Cotton Intensification
SE	Superintending Engineer
SHG	Self Help Group
SIRD	State Institute of Rural Development
SMI	System of Millet Intensification
SPWD	Society for Promotion of Wastelands Development
SRI	System of Rice Intensification
ST	Scheduled Tribes
STRT	State Technical Resource Team
SWI	System of Wheat Intensification
TNA	Training Need Assessment
VC	Value Chain
WHH	Welthungerhilfe

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Sir Dorabji Tata Trust

NGO partners

Asian Institute for Sustainable Development
Multi Art Association
Jan Astha
Prayatna Samiti
Hanuman Van Vikas Samiti
Jagran Jan Vikas samiti

SDGs on which SPWD is working



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