ANNUAL REPORT

2024-25



SPWD

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, 2025)

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.

The following board had a tenure of one year as this board was constituted on 17th October'2023. Due to some unavoidable circumstances; this board got dissolved on 23rd September'2024.

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, 2025)

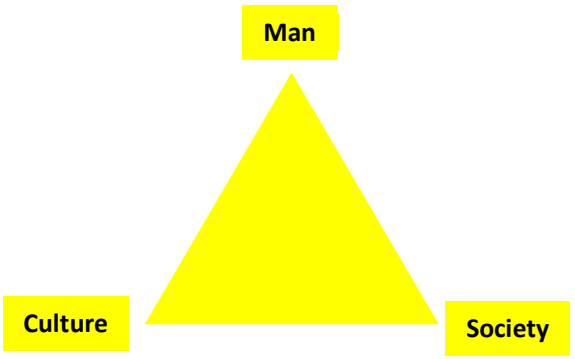
Founder	10
Individual Life	62
Individual Ordinary	08
Institutional Life	22
Institutional Ordinary	16
Corporate Life	07
Corporate Ordinary	00
Total	**125**

The new board was elected on 20th January 2025, the board members elected after an election process are as follows:

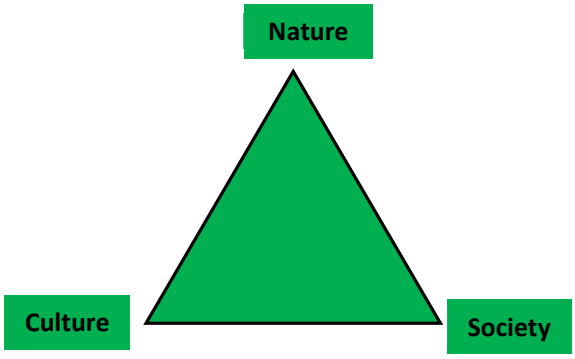
Mr. Vijay Naval Patil	Founder Member
Mr. Vishnu Sharma	Chairman
Dr. Manohar Singh Rathore	Member
Mr. Pramod Tyagi	Member
Mr. Rajesh Ramakrishnan	Member
Mr. Juned Khan Komal (CEO)	Ex-officio

The Dilemma of Natural Resources

The **"Man - Culture - Society"** triangle underscores the deeply interwoven relationship between the individual, the shared norms and values, and the organized group. Individuals are born into a society and undergo socialization, internalizing the cultural blueprint that shapes their beliefs, behaviors, and identities. Simultaneously, culture provides the very framework within which individuals develop and interact, influencing their worldview and social roles. Society, as the collective of interacting individuals sharing a culture and territory, provides the structures and institutions that organize life and transmit cultural heritage. Crucially, this is not a one-way street; while individuals are products of their culture and society, they also possess agency and, through their actions and interactions, contribute to the ongoing maintenance and potential evolution of both cultural norms and societal structures, creating a dynamic and reciprocal interplay.



The **"Nature - Culture - Society"** triangle illustrates the fundamental and inseparable connections between the physical world, human-created traditions, and knowledge, and organized human groups. Nature provides the essential resources and environmental context upon which societies are built and cultures develop, offering both opportunities and limitations. Culture acts as a crucial intermediary, shaping how humans perceive, interact with, and modify the natural world through technologies, practices, and belief systems. Society, with its structures and institutions, organizes these interactions and mediates the impact of culture on nature, while also being influenced by the natural environment itself. This dynamic interplay signifies that environmental issues, cultural practices, and social organization are deeply intertwined and must be understood holistically to address the complex challenges facing humanity and the planet.



Governance and **Development** constitute a crucial framework where the above-mentioned triangles play a very important role. Loose Governance allowed the assaults on natural resource. Particularly in Indian context, on one hand the governance focused on electoral aspects only and on the other, destructions of natural resources have degraded the locally available resources as a resultant gap between poor and rich widened in this process. This destruction has done by whom - the man, the society or by the culture? Does a society can

stop such degradation, and perhaps cannot stop. The individual followed by others to get their greed fulfilled by over exploitation and the companies are exploiting these resources by using the same people or community with their latest technological tools.

The community genuinely holds ownership over these natural resources. Tug of war starts from this point as Governance wants to control these by making different laws but community who are the real users and beneficiaries of these resources are fighting to control these. The alienation of these people from their roots and handing over these resources to companies in the name of development or to fulfill the demands creates a conflict around these resources.

Land-related challenges in India persistently garner significant attention from both government officials and researchers. This renewed focus on land issues arises from the anticipated consequences of economic liberalization and the opening of the Indian economy. Consequently, topics such as tenancy regulations, land ownership limits, and land management systems are being re-examined through a contemporary lens. The key areas currently dominating discussions include the legalization of tenancy agreements, the potential revision of land ceiling laws, concerns about land quality, addressing the difficulties posed by extremely small landholdings resulting from marginalization, and the improvement of land administration practices.

Another critical aspect demanding attention is the increasing fragmentation of agricultural land. It's essential to determine an optimal size for landholdings, considering both the specific Agro-Climatic conditions of a region and the economic needs of a farming family. To ensure the long-term viability of agriculture, property division and inheritance among subsequent generations must be managed to prevent land parcels from shrinking beyond a point where farming becomes impractical, as defined by local environmental and economic realities.

The term "shrinking land" encompasses two significant concerns: the reduction of farmland due to urban expansion and infrastructure development, and the actual physical sinking of the ground, often caused by the excessive removal of groundwater. At one hand, the land is shrinking in terms of agriculture lands, pasturelands, Forest lands, and on other hand, environmental degradation and environmental pollution has become a problem for the Society as well as for the human beings (man). Alienation of local people from their natural resource base has aggravated the environmental problems. Policies are adversely affecting the relationship of natural resources and the rural people specially the tribal people who are critically dependent on them for their survival.

The latest survey by the National Bank for Agriculture and Rural Development (NABARD) reveals some significant trends regarding per capita land holdings among Indian farmers. According to the survey, the average landholding size has decreased from 1.08 hectares in

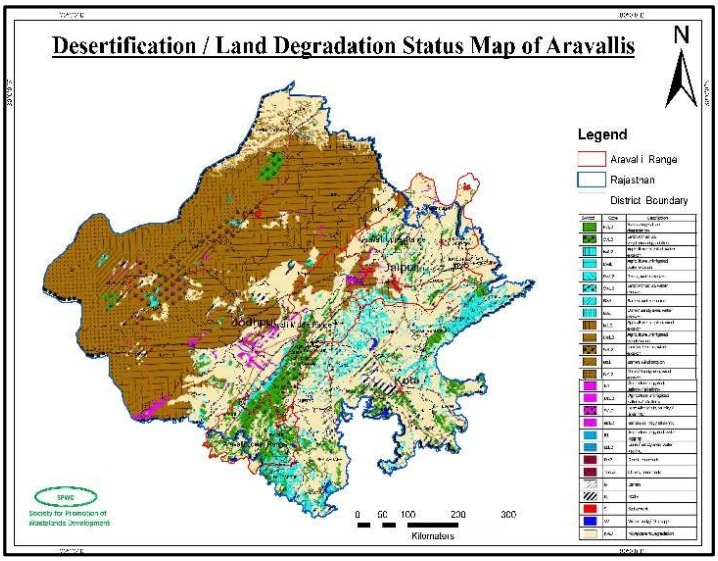
2016-17 to just 0.74 hectares in 2021-22, marking a reduction of about one-third (31 percent). This decline in landholding size is accompanied by other notable findings:
Increased Income: The average monthly household income of farmers rose from ₹8,059 in 2016-17 to ₹12,698 in 2021-22, reflecting a 57.6 percent increase.
Rising Expenses: Monthly expenditures for rural families also increased significantly, from ₹6,646 to ₹11,262, a 69.4 percent rise.
Debt Burden: The percentage of rural families with outstanding debts grew from 47.4 percent to 52 percent over the same period. [1]

SPWD endeavors to prevent, arrest, and reverse the degradation of land and water resources, thereby restoring the life-support system and expanding in sustainable and equitable manner through the people's participation i.e., community initiatives.

[1] Shrinking farms, growing concern: Addressing the decline in per capita land holdings: P G Medhe; Tuesday, 5 November 2024;https://www.chinimandi.com/shrinking-farms-growing-concern-addressing-the-decline-in-per-capita land holdings/#:~:text= The%20latest%20survey%20by%20the, one%2Dthird%20(31%25)

The Scoping Study for Restoration of Degraded Aravalli Region across the states of Haryana, Rajasthan & Gujarat

The Aravalli hills range from the skyline of North-Western India, encompassing three states and one union territory. It extends over more than 70 thousand square kilometers, stretching in both south-west and north-east directions. This hills range is geographically located from 24°N to 29°N and 72°E to 78°E, and its length is 692 km, with a width varying between 10 and 120 km. The Aravalli range has been categorized into three sub-ranges, based on successional orogeny: the upper range (2.5 billion years ago), the middle range (1.7 billion years ago), and the lower range (1.5 billion years ago). The upper range primarily encompasses areas in Delhi, Haryana, and the northeast districts of Rajasthan. The middle range is located entirely within Rajasthan. The lower range is found in some southeastern areas.



Between 1975 and 2019, the Aravalli hills witnessed a significant degradation, with nearly 8 percent of its area disappearing, transforming into barren land (5 percent) and settlements (1 percent). This degradation has facilitated the expansion of the Thar desert towards NCR and Eastern side of Aravallis, exacerbating desertification, pollution, and erratic weather patterns. Mining activities have also increased from 1.8 percent to 2.2 percent during this period, fueled by "explosive" urbanization and unchecked extraction, leading to the vanishing of over 25 percent of the Aravallis and 31 hill ranges in Rajasthan due to illegal quarrying, which significantly contributes to expansion of desertification. Human settlements have surged from 4.5 percent to 13.3 percent. The central Aravalli range experienced a 32 percent drop in forest cover, with a rise in cultivated land and an average annual deforestation rate of 0.57 percent. Water bodies initially expanded but have since declined, impacted by deep mining that has disrupted aquifers, dried lakes, and created artificial water bodies. Notably, protected areas like

Todgarh-Raoli and Kumbhalgarh wildlife sanctuaries showed a positive impact with minimal forest depletion. The Enhanced Vegetation Index indicates unhealthy vegetation in parts of the upper central Aravalli. Future projections estimate a total loss of 22 percent of the Aravalli area by 2059, with 3.5 percent allocated to mining. Consequently, the region faces a significant decline in flora and fauna, the drying up of several originating rivers, and increased human-wildlife conflicts due to the loss of natural forests.[2]

The Aravalli range acts as a crucial hydrological divide, directing water eastward towards the Bay of Bengal via the Ganga River system and westward towards the Arabian Sea. Furthermore, it significantly influences monsoonal rainfall and creates distinct physiographic differences. The Aravalli's presence also defines distinct ecological zones: the drier, less vegetated west and the more humid, well-watered east with significant forest cover. This research aims to analyze these dynamics to inform effective resource management.

The Aravalli Hills hold significant national importance for India in numerous ways. They act as a crucial barrier, constraining the eastward march of the Indian Desert. Functioning as a water divide between the Indus and the Ganga basins, they influence the hydrological landscape of a vast area. The region is also considered a cradle of civilization, holding historical and archaeological significance. Furthermore, the Aravallis are a source of rich mineral wealth. Their presence has historically safeguarded productivity in the 'Granary of India' by influencing weather patterns. Recognizing them as a significant resource area is vital. While they play a crucial role in the climate, their degradation has adversely affected the weather and the climate**.** The hills provide a rich habitat for wildlife and have historically checked the occurrence of drought**.** However, there is a concerning decline in the actual forest area**,** leading to a changing environmental status that demands attention.

Hotspots: States like Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh, and Karnataka face the highest risk of desertification and land degradation. The state of Delhi and Gujarat are recorded to have more than 50 percent of their area undergoing land degradation.[3] With the Aravalli states of Rajasthan, Gujarat and Delhi as major contributors of the country's degraded area, the Aravalli hill range emerges as a focus area for restoration and arresting desertification on the map.

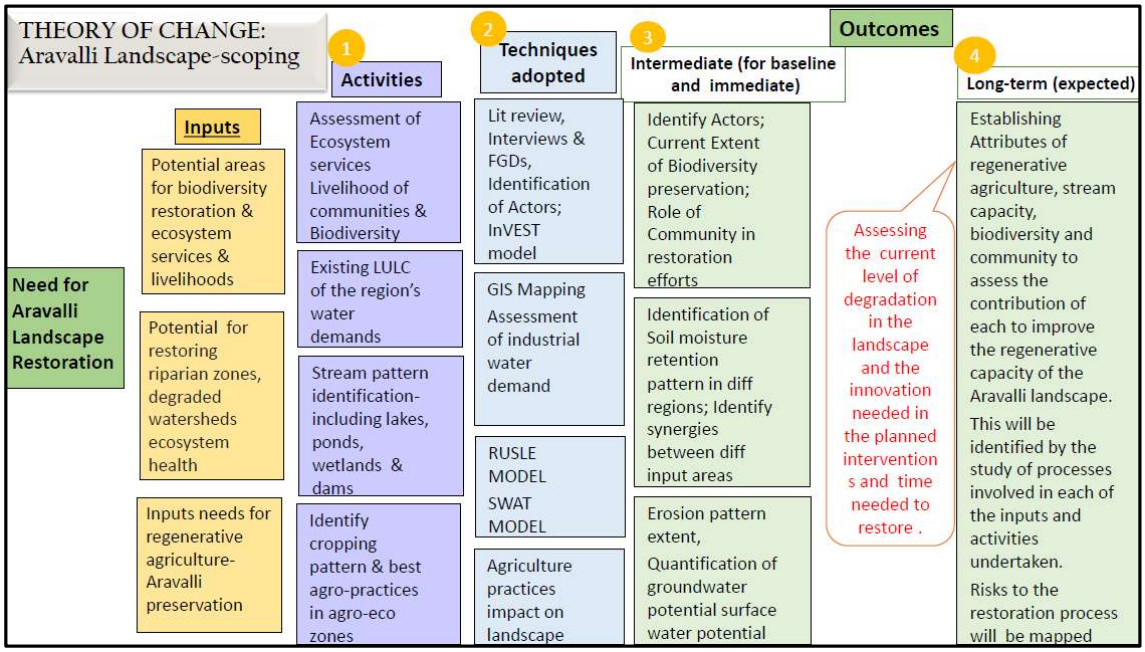
Objective

The primary objective of this study was the scoping of restoration strategies and the environmental status of the Aravalli hills, backed with the identification of reference ecosystems, priority areas for interventions, and conservation efforts. The study was based on four pillars: **land restoration, freshwater conservation, regenerative agriculture, and natural climate solutions.**

[2] Raj, A., & Sharma, L. K. (2022). Assessment of land-use dynamics of the Aravalli range (India) using integrated geospatial and CART approach. *Earth Science Informatics*, *15*(1), 497-522.

[3] Desertification and Land Degradation Atlas of India; Space Applications Centre, ISRO, Ahmedabad - 380015, India; June 2016

THEORY OF CHANGE



Methodology

The methodology for this study involved a multi-faceted approach. Data collection was conducted through field surveys to thoroughly analyze existing farming practices, assess crop diversity, evaluate soil health, and document the current adoption of regenerative techniques such as no-till farming and agroforestry. Stakeholder engagement was crucial, entailing interviews with farmers to understand their experiences and challenges, consultations with agricultural experts to gather insights on best practices, and discussions with NGOs to identify opportunities for promoting regenerative methods. Spatial analysis employed GIS technology [RK1] to map crucial parameters like soil types, current land use patterns, and areas of crop suitability. Finally, a policy review was undertaken to examine existing state-level agricultural policies and determine their current alignment with the principles and goals of regenerative agriculture.

To analyze vegetation composition and plant community relationships, advanced statistical methods like cluster analysis and correlation were employed, providing a scientific basis for conservation strategies and habitat protection.

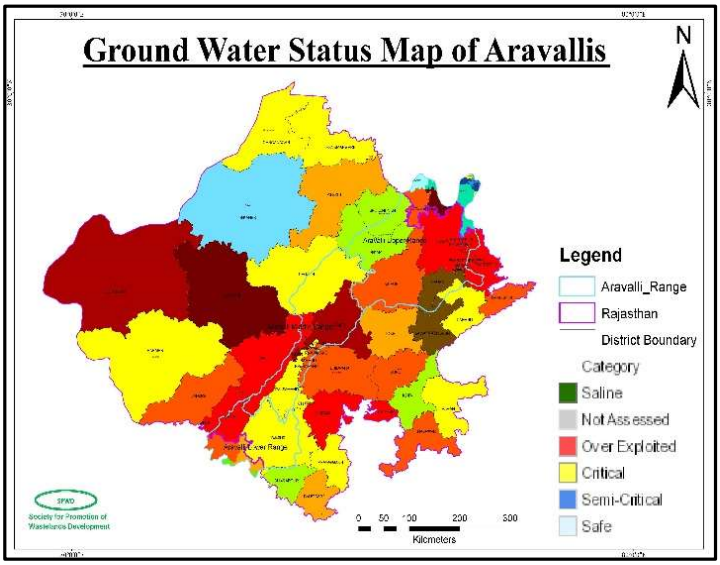
However, the study identified gaps in knowledge and conservation practices, emphasizing the need for targeted interventions. Recommendations include implementing afforestation and reforestation programs with native species, monitoring land use changes, and encouraging community participation in conservation efforts. Integrating traditional ecological knowledge with modern scientific approaches was also suggested to enhance restoration and sustainable land management.

This research offers valuable insights into the ecological dynamics of the Aravalli region by documenting plant diversity, land use patterns, and vegetation similarities. The reference sites and proposed strategies provide essential tools for evidence-based conservation, ensuring long-term sustainability and preserving the biodiversity and ecological functions of

the Aravalli ecosystem. Future research and policy actions should build on these findings to strengthen conservation efforts.

Scope of works

Regenerative Agriculture: The assessment of current agricultural practices included field visits to understand traditional cropping patterns and their changes over decades. This scoping process also examined biodiversity shifts in cropping patterns with respect to various agricultural approaches. It involved identifying degraded agricultural lands and assessing soil health to determine the impact of these practices on the land. Additionally, the study identified indigenous crop varieties and reviewed climate vulnerabilities specific to dryland agriculture. This comprehensive assessment aimed to provide insights into sustainable practices that could enhance agricultural resilience and productivity in the face of changing environmental conditions.



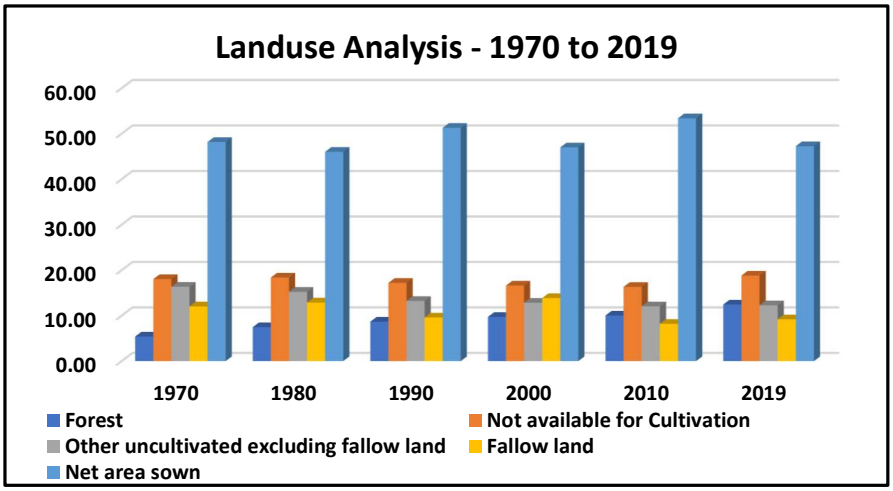
Freshwater conservation: The mapping of existing water bodies and watersheds in the region was crucial for understanding the area's hydrological dynamics. This process included scoping the potential for restoring water bodies and assessing soil aquifers and recharge zones across different parts of the Aravalli range. The scoping covered water quality and current status, providing a foundation for further restoration efforts. The experience of past watershed development works in the region was considered based on the successes, failures, and hurdles faced by watershed management systems (WHS). The protection and restoration of traditional water bodies were also prioritized, recognizing their cultural and environmental significance in sustaining local water resources.

Land restoration – The scoping process for land use/land cover (LULC) and land characterization involved identifying areas for intervention, with a focus on North, Middle, and Lower Aravalli as reference systems. This included assessing various restoration approaches, such as forest community plantations, establishing native forest nurseries, and aerial seed bombing. The feasibility of restoration strategies for degraded forest ecosystems included biodiversity enrichment through the reintroduction of native plant and animal species and identifying habitat corridors. Furthermore, it involved improving ecosystem services, such as carbon sequestration, soil stabilization, and water regulation, based on GIS mapping and desktop assessments.

Natural Climate solutions – The scoping of ecosystem goods and services provided by the Aravalli Hills involved a comprehensive assessment of the region's natural resources and their benefits to local communities. This included evaluating the carbon stock and sequestration potential of the hills, which was crucial for climate change mitigation. The scoping also examined ecosystem functionality through community conservation models, highlighting the role of local communities in sustaining the region's ecological balance. The study explored the development of early-warning systems to mitigate climate-related risks to forests, water, and agriculture.

Land use Practices

In terms of Land use of the study area, over the period, the Forest area has increased from 5.42 percent in 1970 to 12.45 percent in 2019 of the Total Geographical Area. Due to water stress conditions in the region, the fallow land has reduced from 12 percent to 9 percent. Other uncultivated land excluding fallow land has also decreased from 16 percent to 12 percent over the period. The Net sown area shows slight ups and downs which majorly depend upon the rains. But it must be comprehended and linked with the land holding changes over the period.[4]



Over the past several decades, the landscape has undergone notable shifts. Forest cover has more than doubled, expanding from 5.42% of the total geographical area in 1970 to 12.45% in 2019. Simultaneously, the amount of land left uncultivated has shrunk. Fallow land has decreased from 12% to 9%, and other uncultivated land (excluding fallow) has also seen a reduction, moving from 16% to 12%. The net sown area has fluctuated, largely influenced by rainfall patterns. It's important to consider these changes in the context of evolving landholding patterns during this period.

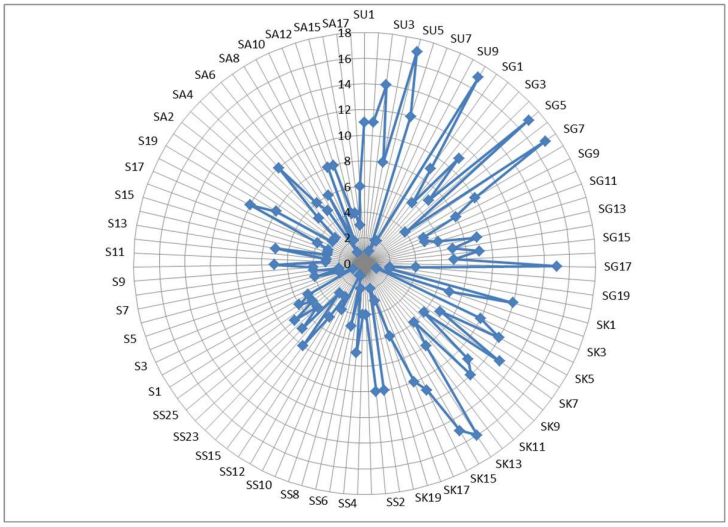
Conclusion

Drawing upon insights gathered from on-the-ground fieldwork, in-depth focused group discussions, individual interactions with community members, comprehensive literature reviews, and the analysis of existing secondary data, specific sites have been identified and proposed for interventions focusing on regenerative agriculture practices at the farmer's level. Simultaneously, locations have been suggested for freshwater conservation initiatives, encompassing the development of water harvesting structures, the restoration of traditional water sources, and the implementation of broader soil and water conservation activities within defined watershed areas. This integrated approach aims to enhance both agricultural sustainability and water security in the region.

In parallel to the agricultural and water conservation planning, a comprehensive survey has been conducted to thoroughly analyze the existing vegetation across the Aravalli region. This detailed analysis considers various factors, including current land use patterns, prevailing

[4] Land use pattern in Rajasthan. Directorate of Economics & Statistics, Rajasthan, Jaipur. Retrieved from http://lus.dacnet.nic.in/

agro-climatic and agro-ecological zones, and the diverse floral types present, along with their specific species and locations. Furthermore, the survey meticulously documents the timing of key ecological processes, such as flowering and fruiting, to inform the development of sustainable plantation strategies. The findings of this vegetational analysis will be crucial in formulating effective protection and management plans for the region's natural flora. Importantly, these plans will also strategically address carbon sequestration goals and promote climate change adaptation practices through the appropriate selection and management of vegetation.



Tree species richness recorded from different sites

The given dataset represents species richness across various sample sites. The species richness values vary significantly, ranging from 1 to 17 species per site, indicating differences in biodiversity across locations.

Report on Asia Land Forum and Regional Assembly @ Jakarta; Indonesia[5]

16th February to 22nd February 2025

The Asia Land Forum (ALF) was organised by ILC Asia in collaboration with USAID/WWF, SEI, Landesa. It was an annual milestone event for the ILC members and a broad spectrum of stakeholders including government. ALF provides space for the communities living-on and from land and for the organisations/actors working with them to learn, share, synergize, strategize to find solutions, network, and build solidarity and partnership. The overarching aim of these is to secure the rights of individuals and communities who live on and from the land and to find and devise collective solutions to surmount challenges that the globe is facing such as climate and biodiversity crisis, increasing inequalities, shrinking democracies and unstable food systems.

Aligning with the priorities identified by ILC members in the region, the 2025 Asia Land Forum's thematic focus was on Climate and Nature (emphasis- given the Conference of the State Parties of the three Rio Conventions taking place in this year), Women's Land Rights, and Land and Environmental Defenders, reflecting the urgent and evolving concerns in the area of land rights and its governance.

- The ILC 2022-2030 Strategy underscores a significant shift towards empowering Peoples' Organizations (POs). This year's ALF was the inaugural in-person gathering of all members to affirm and demonstrate this strategic realignment.
- A notable but unfortunate development has been the surge in land conflicts across Asia, exacerbated by various reasons including climate investments that necessitate substantial land acquisitions, impacting the lives and rights of countless individuals.
- The shrinking of civic spaces has posed substantial challenges for land activists and practitioners, limiting their opportunities to convene, engage in dialogue, and forge connections.
- With the completion of its first triennium strategy implementation, the ALF offered a prime opportunity for ILC Asia to collectively deliberate and shape its strategic direction for the next three years.
- Following significant governance reforms within the ILC, this event also witnessed the election of the next term of the ILC Asia Steering Committee (SC), signifying a crucial juncture in the organisation's governance.

The 2025 ALF hosted in Indonesia by the National Land Coalition members - KPA, RMI, JKPP and SAINS. 2025 is an excellent opportunity for the Indonesian members as ALF was the first big event on land and agrarian reform after the sworn-in of the new president and parliament. ALF gave the momentum for national consolidation and to remind the government regarding

[5] Attended by Juned Khan Komal; CEO – SPWD

the land reform and agrarian reform agenda to address not only inequality and land conflict but also climate change in Indonesia. ALF acted as a pressure on parliament and president.

Objectives:

1. **Presenting Land Rights as a Solution and Celebrating Achievements:**
   Showcase how strengthening land rights and governance can address global crises, including climate change, inequality, shrinking democratic spaces and food security. Celebrate successes of the communities for claiming their rights over land and natural resources, while discussing ongoing challenges and collaboratively devising solutions.
2. **Shaping the Future Direction of ILC Asia:**
   Define strategic priorities for ILC Asia for the next three years, with a particular focus on enhancing support and protection for land and environmental defenders. This includes setting clear goals and action plans for addressing emerging issues and reinforcing ILC's impact in the region.
3. **Influencing Indonesian Government Priorities:**
   Apply pressure on the newly formed Indonesian government to prioritise land and agrarian reform. Utilise the forum as a platform to advocate for policies and actions that address land conflicts, inequality, and climate change, reinforcing the importance of these issues in national governance.
4. **Elevating People's Organizations in Decision-Making**
   Strategize on elevating the role of People's Organizations (POs) in leadership and decision-making processes. Focus on enhancing their influence and ensuring they are central to ILC Asia's strategic planning and implementation, promoting their active participation and leadership.

The Program:

- **Day 1: Firsthand learning through field visits** - Visits to local communities and projects to observe the impact of innovative land rights initiatives and inspire visiting delegates. The field visit also will possibly facilitate documenting some of the good practices in the host country.
- **Day 2: Indonesian Day -** Spotlight on progress and challenges in securing land rights of the people in the host country, with a special emphasis on Climate change, Women's Land Rights (S4HL session in particular) and the protection mechanisms for Land and Environmental Defenders. The day also intends to create momentum for the work of the National Land Coalition of the host country. Further, this day will be used to strengthen the present strategic partnerships.
- **Day 3: Regional Day -** Sessions on this day will be specifically designed to showcase how climate action and peoples led conservation for nature are interlinked with securing land rights. Led by POs, these discussions will highlight innovative practices and collaborative strategies that address climate change, land degradation and biodiversity loss through the lens of land rights in the backdrop of the COPs of the three Rio Conventions. This will bring forward the critical role of local and indigenous communities in climate and nature efforts, showcasing their knowledge and initiatives as central to the dialogue, and explore how risks and opportunities on securing land rights for indigenous peoples, local communities, peasants, women can be advanced through building dialogue with

government and other actors through national instrument under the Rio Convention e.g., national biodiversity strategy action plan, nationally determined contribution.

- **Day 4: Governance, Commitments, and Way Forward** - Strategic discussions and commitment-making sessions leading to the development of a robust political statement that reflects the Forum's dedication to Climate and Nature, Women's Land Rights and the safety of Land and Environmental Defenders, amplifying the voices of POs.

Number of Participants - 185

(1) ILC members - 58
(2) NLC Facilitators and Regional Focal Persons - 10
(3) RCU Team - 7
(4) Global ILC Team and Partners - 10*
(5) Indonesia/ national participants- 100

This year's forum was dived into crucial conversations about land rights, sustainability, and development in Asia—while embracing an intersectional approach. We're highlighting the voices and perspectives of communities that are often overlooked, blending cultural, social, and environmental insights.

It's about elevating diverse narratives and ensuring that everyone—from farmers and peasants, Indigenous peoples to rural women and youth—has a seat at the table. Together, we can address inequalities and push for a future where land and resources are managed equitably.

The Brek out sessions I

(1) Empowering Grassroots movement to drive transformative land reform
(2) Women led efforts in ecosystem restoration
(3) Landmark Regionalization – Scoping study outcome sharing and harvesting ideas
(4) Advancing youth leadership in the ASIAN Land Rights Movement
(5) Partnership for generating people's data and its use to strengthen accountability (towards PCLG) in ASIA

The Brek out sessions II

Addressing land conflicts and protecting environmental advocates in the context of global land acquisition

(1) Women's land rights for climate justice
(2) Direct climate finance for strengthening indigenous people's land rights in climate mitigation and adaptation
(3) Securing land tenure and mobility for pastoralists strategies for sustainable rangeland management in Central and South ASIA
(4) Land rights for biodiversity, land restoration and climate resilience towards equitable and sustainable food systems

The take away for SPWD:

SPWD has got opportunity to showcase its works related to Natural Resource Management, Climate change adaptation techniques, works related to livelihood enhancement etc. at Asia level.

SPWD also presented its understanding for nomads and pastoralists with reference to Forest Rights Act and what to be done for their rights in Rajasthan.

We shared our understanding related to women and youth in relation to climate change.

We committed to start working on WOMEN LAND RIGHTS in our working areas. Though it was shared with reference to MGNREGA and Individual Forest Rights (IFR) under FRA (2006), that land titles have been issued in the name of both (husband and wife), and the job cards (under MGNREGA) have also been issued in the name of both husband and wife.

The water justice

Access to clean drinking water and good sanitation is a human right. **Water justice** means taking these rights seriously and ensuring that all people, especially marginalised groups, have equal access to water and sanitation.

The right to water means that everyone should have sufficient, safe, acceptable, physically accessible and affordable water for daily use.

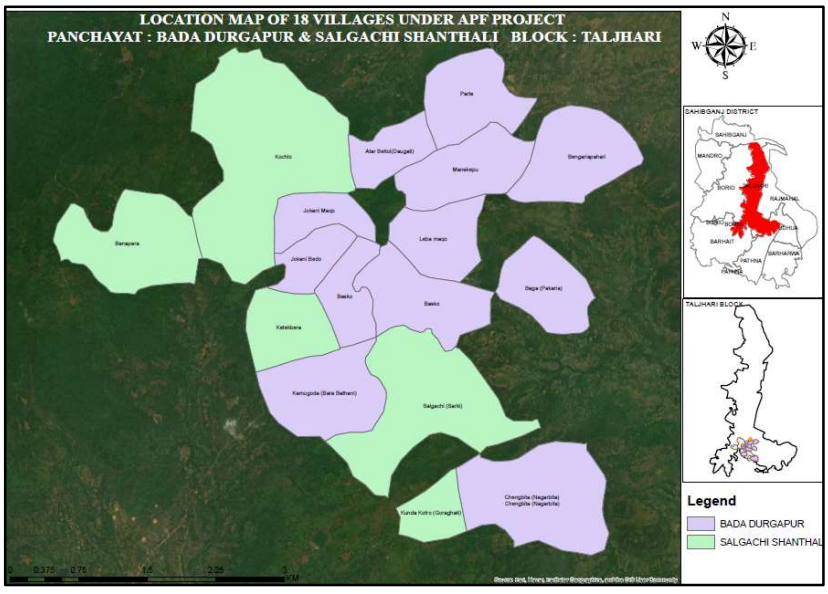
The right to sanitation means that everyone should have access to safe, hygienic and affordable sanitation facilities that provide privacy, respect dignity and are socially and culturally acceptable - at home, at school, at work and in public spaces.

Water is fundamental to all life on Earth, sustaining humans, animals, and plants alike. Historically, societies have conserved water through diverse traditions and cultural practices. However, its invaluable nature has led to its treatment as a commodity, paving the way for its marketization. In the hilly, undulating terrain of Sahib Ganj - Jharkhand, where indigenous communities reside, poor rainwater retention is common, often leading to crop failures. Furthermore, various development initiatives in the region have increased water consumption and contributed to the contamination of water sources.

Ensuring Drinking and Domestic water availability throughout the year for the Pahariya & Santhal community in Taljhari block of Sahebganj district in Jharkhand

SPWD has initiated a programme on drinking water solutions in Sahib Ganj area of Jharkhand with the following objectives as:

- To strengthening of institutions (water based)
- To renovation / Development of clean sources of drinking water
- To promotion of access to safe drinking water



***Programme Strategies*:** The programme will focus on awareness of the community towards clean drinking water and the need to work on the sustainability of the water sources. Thereafter the institutions which are associated with drinking water particularly VWSC and Jal Sahiya will be strengthened so that it could pursue its roles and responsibilities. It will prepare an action by involving the community and the VWSC members so that all come to the same platform. This action plan will address all the four core issues associated with drinking water which are It should be available throughout the year Assuring clean water free from impurities and diseases Availability of water near the habitation should be available to all and ensure participation of women in all the stages of planning and implementation

Then the prepared action plan will be executed by the people themselves in accordance with the objectives through facilitation of the team who will be involved in implementing the activities. There will be regular tracking during implementation to see the deviation and finalize the modification or correction needed to improve the overall quality of the programme. The institution which will be specifically targeted for strengthening is the Village Water and Sanitation Committee (VWSC) covering the proposed 18 villages. These institutions will transform and will take the responsibility for assuring clean and safe drinking water. They will engage in water quality testing and other associated roles for ensuring drinking water to each and every household in a village.

Approach to the problem: The region is marked for having steep slopes with rolling topography. It has limited water retention capacity due to it geological make. They face acute crisis of drinking water and water for household chores. The sources of drinking water available to them dry out or diminish in capacity during the dry season. This poses additional problems for the women of the community in maintaining appropriate hygiene and also escalates their drudgery. Lack of clean drinking water facility especially during monsoon adds another layer of insecurity and vulnerability to the precarious living conditions among the community members. The communities in the region are prone to suffering from water borne diseases during monsoon and the dry season when they access water from unclean sources.

The programme will result in ensuring access to clean water for drinking and household chores. There will be reduction in drudgery and will also improve health condition of the vulnerable communities. The programme will ensure quality of water, accessibility of water and source sustainability for assured supply of water throughout the year

Short term outputs

1) Delineation and treatment of the source and the streams available
2) Water harvesting structures around the water sources to harness rainwater
3) Trained manpower for maintenance of water sources and quality of water

Medium - term outcomes

1) Emergence of strong vibrant Institutions on drinking water and health
2) Assured Water quality through regular testing and cleaning of water sources
3) Sustainability of sources of water with water availability throughout the year
4) Availability of Water Near the habitation.

A year of Success in Entrepreneurship and Women Empowerment in Eastern Region of SPWD

Climate Resilient Farming System for Improved Livelihoods of Tribal Families in Pundagh – Joypur Block of Purulia District

SPWD is working to enhance livelihoods and improve natural resources for 800 small and marginal farming families in the dryland areas of Joypur block, Purulia district, West Bengal. The project is supported by the Karl Kubel Stiftung with the aim to ensure food and nutritional security and to reduce migration from the area. Farmers in twelve villages fail to engage in organic and scientific agriculture and do not access existing entitlements related to agriculture. The project focuses on the most marginalized and vulnerable farmers group.

The project aims for holistic empowerment, equipping farmers with enhanced knowledge to boost productivity. This involves integrating scientific agricultural practices with improved traditional nutrient management and promoting the effective use of locally adapted technology and machinery. Additionally, the initiative focuses on developing and supporting institutions that can help farmers achieve better livelihoods.

Establishment of Farmers Groups and Community Resource Persons.

To facilitate this, the project has established 27 farmer groups, comprising 440 farmers (285 women and 155 men), and 12 resource groups. These farmer groups are organized into resource groups at the cluster level. This structure allows village representatives to convene at the cluster level and discuss inter-village issues.

Significant progress has been made in establishing village-based institutions through the project. These groups serve as vital forums where members consistently address and seek solutions for local agricultural issues, including water scarcity, poor soil quality, drought conditions, and insufficient farmer support services and infrastructure. Meanwhile, the resource groups play a crucial facilitative role for the farmer groups, specifically by compiling beneficiary lists for cow shed, brick kilning, vermibeds, seeds for second crops, and azolla tanks.

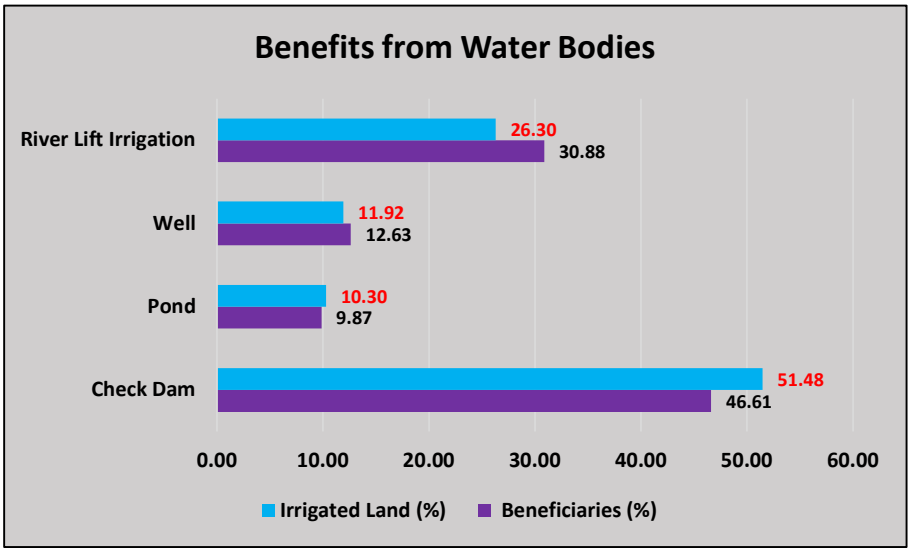
Company Incorporation: The process of formation of ***"ABGHA FARMER PRODUCER COMPANY LIMITED"*** was successfully completed on 30th November 2024 under the Companies Act, 2013 (18 of 2013). The company is a private limited company, with a share capital structure. Following formalities have also been completed as:

- Corporate Identity Number (CIN): **U01611WB2024PTC274882**
- Permanent Account Number (PAN): **ABBCA7483N**
- Tax Deduction and Collection Account Number (TAN): **CALA38412D**

The company is now officially registered and operational. The company is targeting 1,000 farmers from both old and new project villages to be a part of its shareholder base. A decision has been made to offer 500 shares per farmer, allowing them to participate in the company's ownership and growth.

In the past year, several forms of water infrastructure have been developed in the villages to alleviate this crisis. While most of the water infrastructure has been completed, the monsoon season caused delays in the excavation of one well and the development of ponds. However, these works are currently underway and progressing steadily.

Name water body	No. of Village	No of Beneficiaries	Beneficiaries (%)	Total irrigated Land (Acre)	Total irrigated Land (%)
Check Dam	06	406	46.61	137.595	51.48
Pond	06	86	9.87	27.54	10.30
Well	08	110	12.63	31.86	11.92
River Lift Irrigation	03	269	30.88	70.295	26.30
Total	**23**	**871**	**100**	**267.29**	**100**



Small Electric Pumps: 20 small electric pumps were planned. Out of which 9 have been given and the remaining 11 has been processed to be finalized. These small electric pumps will be given around the water bodies which have been established so that farmers can use that in a group to irrigate their land which have been taken for cultivation by using the water from the water bodies from those structures.

Solar Pump System: The solar pump system has also been planned, which will be used at the Cluster Facilitation Centre with the support from state government.

Training and Capacity Building

Regular meetings and **trainings** are conducted to enhance the members' knowledge and skills. These sessions cover various topics such as:

- Climate-resilient farming techniques
- Sustainable agriculture practices
- Water conservation and management strategies

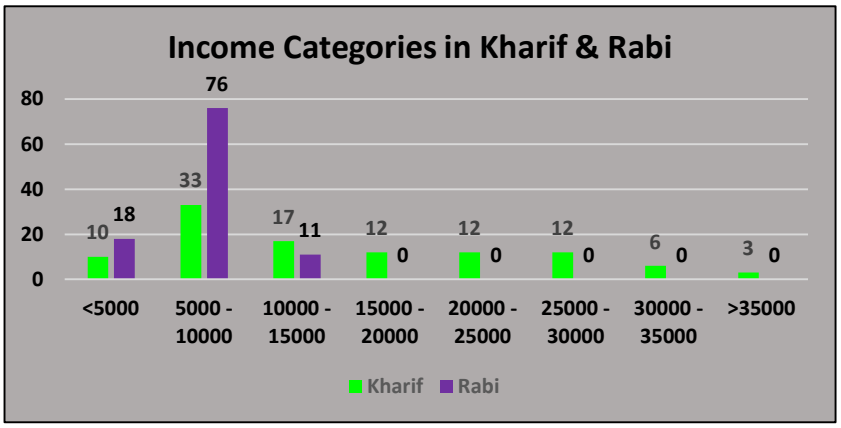
- Organic farming and agroecology

By upgrading the skills and knowledge of the group members, the project seeks to ensure that they are well-equipped to handle the challenges posed by climate change, including erratic rainfall, droughts, and soil degradation.

Trainings imparted in the Project	Number of Participants		
Project Activity	**Women**	**Men**	**Total**
Establishment of resource groups	85	43	128
Establishment of Farmers Groups and Community Resource Persons	776	401	1177
Institution Strengthening	342	208	550
System of Rice Intensification (SRI)	414	198	612
Direct Seeded Rice (DSR)	181	119	300
Improved Upland-Cultivation	81	69	150
Improved and sustainable cultivation methods	939	611	1550
Training on Integrated Agricultural Systems	313	188	501
Kitchen & Forest Gardens	248	79	327
Use of bio-fertilizers	446	265	711
Organic Certification	55	65	120
Training of Lead Farmers	10	15	25
Training of the board	251	149	400
BOD Members	95	95	190
Goat husbandry & Duck keeping	334	225	559
Annual & National Level Workshops	10	24	34
Staff capacity building	6	63	69
Total	**4586**	**2817**	**7403**

Livelihood enhancement

The livelihood opportunities and income generating activities are identified considering the existing socio-cultural practices of the target communities. The project focuses on



improvement in production technologies in major food crops loke paddy, maize and millets through application of SRI, DSR and Zero till approaches. Farmers are encouraged to adopt multiple livelihood practices like lac cultivation, cattle and poultry rearing in order to broaden their livelihood options and reducing the risks.

Crops	No of HH	Total Seed Quantity (Q)	Total Area (Acre)	Total Production (Kg)	Total Production (Q)	Total Home Consume (Q)	Sales (Q)	Income (₹)	Average Income (₹)
Ground Nut	227	7.06	16.08	15678.00	156.78	109.74	31.35	1,88,136.00	828.79
Arhar	258	1.78	46.41		0.00	0	0.00	0.00	0.00
Maize	321	3.03	82.41	48623.67	486.24	291.74	194.49	2,91,742.00	908.85
Millet	321	6.34	54.34	34085.49	340.85	272.68	51.12	2,04,512.93	637.11

Bio-inputs

For promoting sustainable agriculture practices, training on bio inputs were imparted for farmers. The focus was to make them self-sufficient and self-reliant as regards nutrient management and pest control. The community has successfully adopted bio-fertilizers as a sustainable agricultural practice, significantly enhancing soil health and promoting environmentally friendly farming across approximately 50 acres of farmland involving over 350 households. Supported by community engagement, training, and awareness campaigns, this initiative has distributed 160 kg of Rhizobium, 220 liters of Neem Oil, 105 kg of Trichoderma, and 385 kg of Microphos. This shift reduces reliance on chemical inputs, improves soil fertility and microbial activity, and aligns with the broader goal of transitioning to organic farming and building agricultural resilience for long-term environmental well-being.

The kitchen waste decomposer initiative is a groundbreaking solution for organic waste management, transforming household kitchen waste into valuable, nutrient-rich compost. This program effectively merges waste recycling with sustainable agriculture, directly meeting farmers' needs for high-quality compost to enhance soil health. It offers a dual benefit: farmers collect leachate (a nutrient-rich liquid) for immediate farm application and allow the solid waste to decompose into compost over time, providing both instant and long-term solutions for boosting agricultural productivity. With 22 farmers already adopting this eco-friendly practice, the initiative highlights growing community interest in sustainable waste recycling and provides a local, cost-effective source of organic fertilizer, significantly reducing reliance on external inputs. This program not only tackles organic waste disposal but also promotes agricultural sustainability through soil enrichment and nutrient recycling, aligning with broader goals of environmental conservation and resilience by supporting farmers in transitioning to eco-conscious farming methods.

Efforts are actively underway to complete the **Participatory Guarantee System (PGS) Registration**, a crucial step for ensuring local quality assurance in organic farming. The **PGS-India initiative** offers a cost-effective, locally relevant alternative to third-party certification by directly involving farmers in the quality assurance process, thereby fostering community trust in organic products. Currently, **600 farmers** are registered, and two years of required

crop data (for 2023 and 2024) have been successfully submitted, with the third year's data to follow as per PGS guidelines to finalize certification.

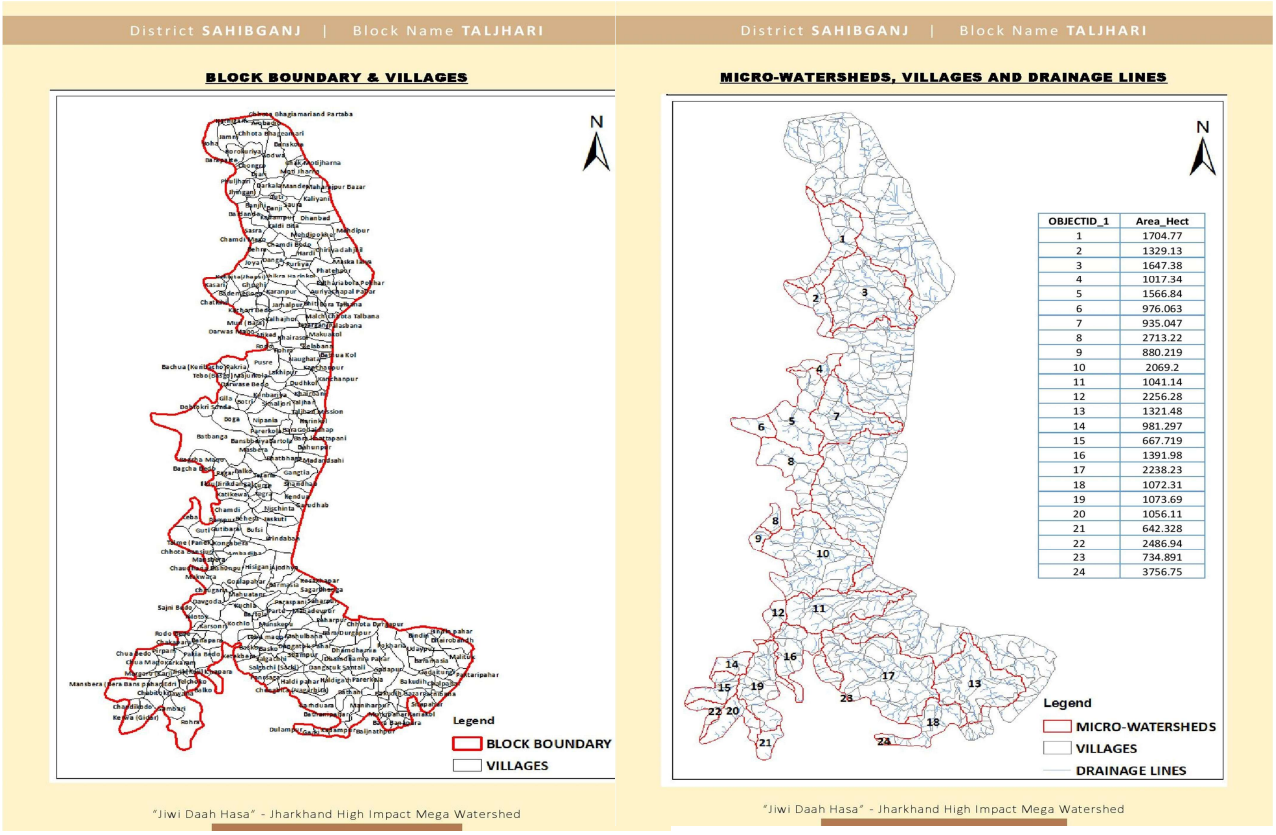
By completing the three-year crop data submission and maintaining strong farmer engagement, the project seeks to empower farmers by improving their access to formal markets, boosting product quality, and enhancing their bargaining power. These initiatives are designed to foster a self-sufficient and resilient farming community, equipped to navigate future agricultural challenges while ensuring both economic prosperity and environmental sustainability.

Mobilizing MGNREGS- A High Impact Collaborative Water Security Program in Jharkhand: 2020-25

In April 2020, Welthungerhilfe (WHH) partnered with PRADAN, WOTR, and SPWD to launch the Jiwi-Daah-Hasa project, which concluded in February 2025. This initiative aimed to improve food and nutrition security for vulnerable populations in six drought-prone blocks of Jharkhand, specifically focusing on revitalizing life, water resources, and livelihoods in the most deprived regions of Taljhari block in Sahebganj district. Each partner organization was assigned two blocks i.e., one intensive block and one non intensive block. Taljhari and Borio are the two blocks which are allotted to SPWD wherein Taljhari is the intensive block.

The program empowered Gram Panchayats to plan and implement MGNREGA based on watershed development principles for comprehensive ecosystem revival. By leveraging MGNREGA wage entitlements and converging other schemes, the project sought to double community income, diversify and intensify agricultural production, and regenerate the ecosystem, with significant soil and water conservation work supported by leveraged state MGNREGA funds.

The project also aimed to channelize MGNREGA funds to enhance village irrigation infrastructure, thereby boosting cropping intensity, crop diversity, and crop productivity. This agricultural focus was strategically used to improve nutrition outcomes by directly addressing inadequate food and nutrient intake, and indirectly tackling underlying factors such as poverty, low income, and food insecurity.



Capacity building

- **Training of Staff** –

  The project prioritized comprehensive capacity building for its personnel. Team Leaders and Watershed Experts received training on various aspects of the Jiwi Daah Hassa project, while GIS specialists underwent multiple training rounds. Project staff, particularly CRPs, were oriented across all project facets, including general project knowledge, watershed development, NREGA, using the ODK APP for geo-tagging, and field implementation. Ongoing training ensures staff can provide detailed information on NREGA schemes and their livelihood linkages.

- **Training of Community Leaders & PRI-**

  Seven trainings were conducted for lead persons and community leaders across 13 panchayats. These sessions equipped them to assist CRPs in DPR formation within their villages, and provided comprehensive training on watershed development and its importance for village progress. Participants also learned various aspects of MGNREGA, including how to extract information from its official website.

  Training at Non intensive (Borio)-

  Under the Jiwi Daah Hasa project expanded planning into the non-intensive Borio Block was done. The trainings were attended by local officials and ward members from five

selected panchayats, explained the JDH planning process, including the selection and roles of PFT (Panchayat Facilitation Team) members. Each village's PFT consisted of a ward member, an active job card holder, an active female SHG member, and a village elder. Additionally, a three-day training was held in each of these five panchayats: Bara Raksho, Motipahti, Bishunpur, Poal, and Bichura.

- **Training of MGNREGA functionaries and Mate-**

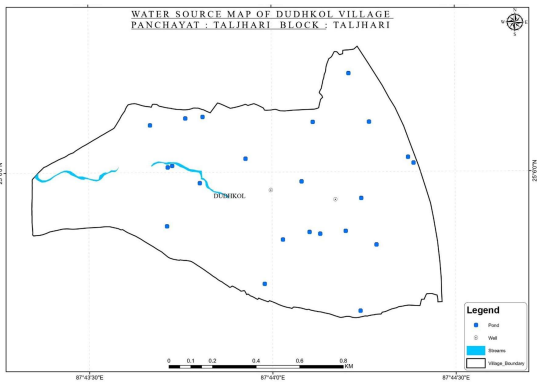
  Capacity-building sessions were held for MGNREGA employees and Mates, covering topics like water harvesting, mango and bamboo plantation, TCB, and various other water conservation schemes. Mates specifically received briefings on watershed development, soil and water conservation schemes, MGNREGA, and their defined roles and responsibilities. To further enhance the capabilities of MGNREGA workers and staff, two animated video series focusing on NREGA MIS and NRM were also screened.
  https://www.youtube.com/watch?v=dJ8dJ5RfmBY&t=20s

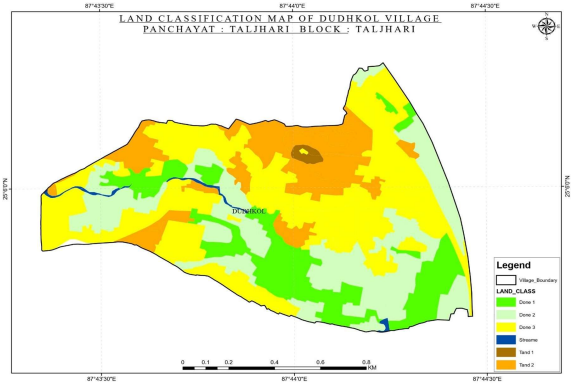
Preparation of DPRs in Intensive/Non intensive Blocks-

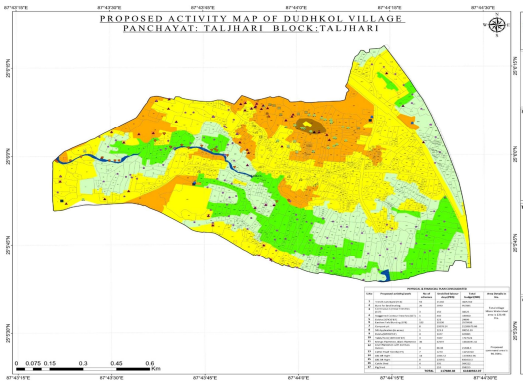
In the Taljhari (Intensive) block, 128 DPRs (Detailed Project Reports) were prepared and submitted, covering 136 revenue villages and encompassing a planning area of 17,018 hectares. For the non-intensive Borio block, 75 DPRs were completed for 95 villages, with planning for 12,153 hectares. All village data was collected according to the DPR format and processed via ODK exercise. Additionally, both Priority Plan 1 (PP1) and Priority Plan 2 (PP2) were developed for all villages in Taljhari, while only PP1 was created for the non-intensive Borio block.

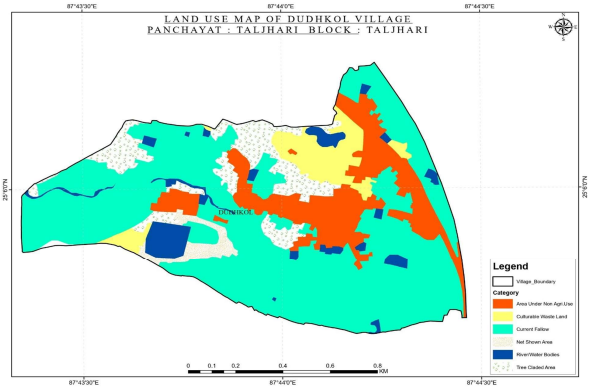
GIS based planning-

SPWD has significantly enhanced Integrated Natural Resource Management (INRM) and MGNREGA planning by integrating GIS technology. The introduction of EPRA, which allows villagers to view their areas through satellite imagery and Google Earth maps, proved highly engaging as they could easily identify their local resources. This approach aims to foster community and Gram Panchayat involvement in the sustainable planning and management of natural resources. Consequently, seven distinct thematic maps were generated for each village.









Livelihood Interventions (Farm, Livestock, NTFP and especially fisheries)-

Fisheries promotion – Recognizing the potential for pisciculture, the JDH team-initiated training programs for project villagers. In 2022, 15 farmers received three days of specialized training at FFTC, Ranchi. This was followed by a two-day training and awareness meeting on July 17-18, 2023, at the Taljhari Block office. Furthering these efforts, eight Taljhari farmers participated in a three-day residential training on fish nursery management at FFTC Ranchi from July 27-29, 2023, in convergence with the district fisheries department. In 2024, an additional 10 farmers received the same training. The District Fisheries Department supported these trained farmers with 10 lakh IMC spawn, 50 kg of feed, and one fishing net each. Cumulatively, farmers sold 2.7 quintals of fingerlings and harvested 9.5 quintals of mature fish.

Installation of drip irrigation- To make the most of available irrigation water, our team facilitated the installation of 26 drip irrigation systems and 5 sprinklers across 19.3 acres of farmland under the PMSSY scheme, benefiting from a 90% subsidy.

Duck rearing – In the 2023-24 fiscal year, 56 farmers were mobilized and successfully applied for ducklings through the Mukhyamantri Pashudhan Yojana. Under this scheme, each participating farmer receives 15 ducklings at a 90% subsidy.

Machan Kheti- With BRLF's support, 31 farmers across seven panchayats adopted modern

machan farming on 1.5 acres of land. Each farmer received 2 kg of polymer wire and 1.5 kg of

nylon wire from BRLF, while they sourced nails and bamboo themselves. Farmers were also provided with seeds and technical guidance on machan management. In the last cropping season, this initiative yielded a harvest of 52.8 quintals of pumpkin, bitter gourd, ridge gourd, cucumber, and sponge gourd.

Barbatti and Sorghum cultivation - Traditionally, Pahadia farmers in the Rajmahal hills cultivate jowar, barbatti, and rice beans by scattering untreated seeds on slopes without fertilizer. To improve this, we introduced the concept and benefits of seed treatment through tola-level training. Farmers were taught to first sort seeds, then treat them with Beejamrit, followed by PSB, Azotobacter, and Trichoderma. This initiative, which began with 58 trial farmers in 2023-24, has now expanded to 1042 farmers. Additionally, we registered 1032 Pahadia farmers under the Jharkhand Millet Mission to enable them to receive an incentive of ₹3000 per acre.

Mushroom Cultivation – We initiated oyster mushroom cultivation in project villages during 2023-24, despite initial challenges with consistent supplies of formalin and mushroom spawn. To support farmers, we provide a package including 1 kg of oyster mushroom seeds, 100 ml formalin, 10 grams of Bavistin, and 5 PP plastic bags with rubber bands, all for a contribution of ₹200. We source the mushroom spawn from Bhagalpur, and the formalin and Bavistin from Ranchi. To date, we've distributed 2 quintals of seeds, resulting in a harvest of 925 kg of oyster mushrooms.

Papaya Cultivation – In 2024, we launched a papaya cultivation initiative with 17 progressive farmers, covering 1.77 acres. We supplied 1765 Red Lady papaya saplings from Yamunotri Agro, UP, at ₹30 per plant. Unfortunately, 30% of the plants were damaged shortly after planting due to extreme weather. To date, 18.5 quintals of papaya have been harvested and sold in the local market.

Pump set and sprayer distribution- Through a collaboration with the district ATMA office, 15 farmers received pump sets and 12 sprayers, both at a 90% subsidy. This initiative is

particularly impactful as most of these farmers had already constructed wells under MGNREGA, and the new pump sets will enable them to utilize these water sources effectively.

Bamboo cultivation – Pahadiya farmers in the upper ridges of the Rajmahal hills earn a good income from bamboo cultivation. To further support this, we organized two farmer training batches at IFP Ranchi. These sessions taught them various aspects of bamboo farming, including propagation techniques, nursery management, post-plantation care, and disease management. Additionally, we established a bamboo nursery through convergence with MGNREGA.

Goat rearing and Raised Machan- We conducted village-level training for goat-rearing farmers, covering essential topics like goat care, housing, and fodder management. Additionally, we taught farmers to prepare medicines from local plants and performed deworming during these sessions. We also emphasized the importance of raised beds in goat housing, encouraging farmers to construct them. To date, 93 farmers across various villages have independently built these raised platforms.

CASE STUDY - I

Santosh Majhi – A Progressive Farmer Embracing Sustainable Agriculture

Profile Overview: Santosh Majhi, a resident of Behragora village in Joypur Block, Purulia, belongs to the Scheduled Tribe (ST) category. Married with two children, he supports a family of five. Known for his hard work and progressive farming approach, Santosh has leveraged the resources and opportunities provided by SPWD to transform his agricultural practices into a thriving livelihood.

Landholding and Agricultural Activities
Santosh owns **0.40 acres of land** and has taken an additional **0.60 acres on lease**, making a total of **1 acre** under cultivation. He practices year-round farming across the **Rabi**, **Kharif**, and **summer seasons**, cultivating a wide variety of crops such as:

- **Vegetables**: Cabbage, cauliflower, tomato, brinjal, cowpea, bitter gourd, pumpkin, bottle gourd, and onion.
- **Tubers**: Potato.

His ability to manage diverse crops throughout the year ensures a consistent income and food security for his family.

Support and Initiatives: Under the guidance and support of SPWD, Santosh's farming group received a **vermicomposting unit**. This initiative has proven instrumental in improving his soil health and reducing input costs. By utilizing the vermicomposting unit, Santosh produces high-quality organic compost

on his farm, eliminating the need for expensive chemical fertilizers. The compost has enhanced the fertility of his land, resulting in higher yields and better-quality produce.

Sustainable Practices and Impact

Santosh's adoption of sustainable agricultural practices has brought multiple benefits:

1. **Crop Productivity**: The use of organic compost has improved soil structure and increased microbial activity, leading to healthier plants and higher crop yields.
2. **Income Growth**: With consistent cultivation and the ability to grow high-demand crops, Santosh earns approximately **₹1.49 lakh annually** from his farming activities.
3. **Cost Reduction**: The vermicomposting unit has significantly reduced his dependency on chemical fertilizers, lowering input costs and increasing profitability.
4. **Environmental Benefits**: By practicing organic farming, Santosh contributes to environmental conservation and promotes sustainable agriculture within his community.

A Model Farmer in the Community: Santosh's dedication and success have made him a role model for other farmers in Behragora and neighboring villages. His willingness to adopt modern and sustainable farming techniques inspires others to follow suit. His diversified cropping pattern ensures year-round production, demonstrating resilience against market fluctuations and climate challenges.

Challenges and Resilience

Despite his success, Santosh faces challenges such as:

- Limited access to water during peak dry seasons.
- High costs associated with leased land.
- Market price fluctuations for his produce.

However, his perseverance and proactive approach to farming have enabled him to overcome these hurdles. He has managed to diversify his crops, spreading risk and ensuring stable returns even in unpredictable conditions.

Season wise crops cultivation and income details

season	Month	Crop	Area (Decimal)	Estimated Yield (kg)	Average Market Price /kg	Income (Rupees)
Kharif	Jun – Oct.	Brinjal	30	550	45	24,750
		Tomato	25	450	55	24,750
		Cowpea	10	200	40	8,000
		radish	10	250	40	10,000
		Beans	10	175	50	8,750
Rabi	Nov.- Mar.	Cauliflower	20	350	25	8,750
		Cabbage	25	530	20	10,600
		Radish	10	250	15	3,750
		Tomato	20	460	20	9,200
		leafy Vegetables	10	300	25	7,500
		brinjal	10	200	30	6,000
Zaid	Apl. – Jun.	Bottle Gourd	10	250	25	6,250
		Bitter Gourd	5	150	40	6,000
		Beans (Early)	5	75	50	3,750
		cucumber	10	350	15	5,250
		Brinjal	10	190	35	6,650
Total						**1,49,950**

Future Plans

Santosh aspires to expand his agricultural activities by:

- Increasing the use of organic farming methods.
- Setting up a small irrigation system to ensure consistent water supply.
- Exploring direct market linkages to eliminate middlemen and secure better prices for his produce.

CASE STUDY – II

Budheswar Hansda – A Progressive Farmer from Damrughutu

Background:
Budheswar Hansda, a married farmer from Damrughutu village, under Jhalda-2 PS in Purulia, belongs to the Scheduled Tribe (ST) category. He lives with his wife and two children, making a total of four members in his household. Known for his hardworking and progressive approach, Budheswar's journey reflects the transformation of a smallholder farmer into an influential role model within his community.

Farming Practices and Land Ownership:
Budheswar is a dedicated and resourceful farmer who owns 0.50 acres of land, located near a well that has been established with support from the Society for Promotion of Wastelands Development (SPWD). This well has been a pivotal resource for his farming activities, especially as it ensures access to water throughout the year for crop irrigation. The reliable water supply has allowed him to diversify his crops and experiment with different farming practices, enhancing both his productivity and income.

Crop Diversification*:*
Budheswar has adopted diversified cropping methods, cultivating a variety of crops across all seasons, including tomato, brinjal, cowpea, bitter gourd, pumpkin, and bottle gourd. His decision to cultivate tomatoes in all three seasons—Rabi, Kharif, and Summer—has been a key strategy in maintaining a continuous income flow. By diversifying his crops, Budheswar ensures that his family has a steady supply of food while also creating a marketable surplus.

Tomato cultivation: Budheswar's focus on tomatoes has been highly successful. He cultivates them in all three seasons, taking advantage of the year-round demand for this high-value crop. This method not only ensures regular cash flow but also provides a buffer against market fluctuations.

Other Crops: Alongside tomatoes, Budheswar grows other vegetables like brinjal, bitter gourd, and cowpea. These crops provide him with additional income during the off-seasons, further strengthening his financial resilience.

Support from SPWD:

Budheswar's success story would not be complete without mentioning the support he received from SPWD. The construction of the well near his farmland, made possible by SPWD, played a crucial role in overcoming the water scarcity challenges that often plague farmers in the region. With reliable irrigation, he was able to maximize the potential of his 0.50 acres of land, improving both the quality and quantity of his crops. The consistent availability of water has allowed him to achieve multiple harvests per year, which has substantially boosted his income.

Income Generation and Financial Success:

As a result of his diversified farming practices, Budheswar earns approximately ₹1.08 lakh annually from his crop cultivation. This steady income has significantly improved his family's financial situation, enabling him to invest in better farming equipment, education for his children, and improve his household's overall standard of living. His ability to cultivate crops year-round has made him more self-sufficient, reducing his reliance on external financial assistance.

Moreover, his success in farming has made him a respected member of the local farming community. Budheswar regularly shares his knowledge with fellow farmers and actively participates in farmer group activities, further contributing to the development of his village.

Challenges and Solutions:

Like many farmers in the region, Budheswar faces challenges related to market access and price fluctuations. However, through his involvement with the Farmer Producer Company (FPC), he has gained better access to markets and improved his bargaining power. The FPC has helped him connect with buyers directly, ensuring that he gets a fair price for his produce and reducing his dependence on middlemen.

In terms of crop management, Budheswar faced challenges with pests and diseases, particularly with tomato cultivation. However, he was able to address this issue through the training provided by SPWD and other agricultural support programs, which focused on integrated pest management and sustainable agricultural practices.

Impact on the Community:

Budheswar's success has inspired many other farmers in the region. His innovative approach to year-round cultivation, his adoption of sustainable practices, and his involvement in farmer groups have made him a role model. Through knowledge-sharing and collaboration with other farmers, he has helped to promote climate-resilient and sustainable farming practices across the village.

Season wise crops cultivation and income details

Season	Crops	Area (Decimal)	Estimated Yield (kg)	Average Market Price /kg	Income
Kharif	Tomato	25	500	55	27,500
	Cowpea	10	125	40	5,000
	brinjal	10	300	25	7,500
Rabi	Tomato	25	700	18	12,600
	leafy Vegetables	5	200	20	4,000
	Brinjal	10	400	40	16,000
	Radish	5	150	20	3,000
Zaid	Bottle Gourd	5	300	20	6,000
	Bitter Gourd	2	100	40	4,000
	Pumpkin	5	150	20	3,000
	Tomato (Late Kharif)	20	450	45	20,250
Average Income Per Year					**1,08,850**

Annexure I

SPWD TEAM
(As on March 31, 2025)

PROGRAMMES

S. No.	Name	Designation
1	Mr. Juned Khan Komal	Chief Executive Officer
2.	Mr. Sanjay Kumar	Sr. Programme Officer
3	Ms. Promila John	Sr. Administrative Executive (31/10/2024)
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	Vinod Kumar	Watershed Expert/Programme Manager	WHH/APF
2	Sanjay Kumar Singh	Project Coordinator	APF
3	Anand Kumar Pandey	MIS	APF
4	Ashish Kumar Dutta	Cluster Coordinator	WHH/APF
5	Ruhidas Kumar	Field Facilitator	KKS
6	Ganesh Mahato	MIS	KKS
7	Nihar Kumar Mahato	Technical Expert	KKS
8	Manju Majhi	Field Facilitator	KKS
9	Phalguni Hasda	Field Facilitator	KKS
10	Dulal Chandra Mahato	Accountant	KKS
11	Suchitra Soren	Field Facilitator	KKS
12	Malindra Soren	Field Facilitator	KKS
13	Budheshwar Tudu	Field Facilitator	KKS
14	Newton Hembrom	Field Facilitator	KKS
15	Birbal Lohra	Driver	KKS
16	Nishi Khalkho	Office Assistant	GEN
17	Virmani Kumar	Cluster Coordinator	WHH
18	Sohan Pandit	Community resource Person	WHH
19	Rajkumar Pandit	Community resource Person	WHH
20	Natva Hembrom	Community resource Person	WHH
21	Manjhi Tudu	Community resource Person	WHH/APF
22	Paul Murmu	Community resource Person	WHH
23	Haridhan Dutta	Community resource Person	WHH
24	Dipak Tudu	Community resource Person	WHH
25	Ajay Khalkho	Community resource Person	WHH
26	Aakash Toppo	Community resource Person	WHH
27	Anup Murmu	Community resource Person	WHH/APF
28	Mahesh Malto	Community resource Person	APF

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	Gesellschaftfür Internationale Zusammenarbeit
GoI	Government of India
GP	Gram Panchayat
GPS	Global Positioning System
GRS	Gram Rozgar Sevak
HDPE	High Density Polyethylene
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
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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