

# ANNUAL REPORT 2022-23



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## 2022-23



■ Illustrated by M. Sreekanth (WASSAN)

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### WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

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# EXECUTIVE SUMMARY

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Millets, the ancient grains that once formed the cornerstone of Indian diets, experienced a decline following the emergence of high-yield wheat and rice during the Green Revolution. However, their intrinsic resilience and nutritional prowess have sparked a revival in recent times, repositioning them as a beacon of sustenance, especially in the semi-arid tropics.

These resilient and nutritionally dense crops, thriving in low rainfall and nutrient-deficient soils, provide resilience to crop systems in the challenging geographies, ensuring food and nutrition security for communities dwelling in such areas.

In this International Year on Millets, WASSAN stood at the forefront of this resurgence playing a pivotal role in mainstreaming millets. Through engagement with the state and national governments, community engagement, and innovative agricultural practices, WASSAN has championed the cause of millets, revitalizing their cultivation in marginalized regions. Their efforts extend beyond mere promotion; they actively facilitate knowledge dissemination, capacity building, and the establishment of sustainable farming practices, thereby empowering local communities to embrace millets as a sustainable dietary staple.

This year also saw a deepening of the work on agroecology, regeneration of ecosystems at scale; these are enriching experiences that made direct impact on communities. New participatory tools that are amenable for digitisation using GIS-Mobile-Web modules; tools for assessing local economies to promote circularity have been evolved. A significant initiative that used human nutrition as an entry point for diversification of the crop systems has been taking shape with promising results. The CSR-grant from HDFC Parivarthan helped us to strengthen infrastructure that stimulate local circular economy in Seethampet in Andhra Pradesh.

This year is also a landmark for WASSAN as Azim Premji Foundation saw merit in the organisation to extend a corpus grant to WASSAN to enable its sustainability and impacts at community level.

WASSAN team thanks all the Donors, scientists, partner organisations and others who have been with us in this journey supporting in multiple ways and helping us to learn and co-create several initiatives on the way.

**(A. RAVINDRA)**

*Executive Secretary, WASSAN*



# MAINSTREAMING MILLETS IN RAINFED ECOSYSTEMS

The year 2023 was celebrated as the International Year of Millets (IYOM), a landmark year for WASSAN! Over a decade of efforts, starting with an understanding of millets in rainfed ecosystems from the seminal work of Deccan Development Society, we have come a long way. The initial formulation of the idea of a 'Millets Mission' was a part of the 11<sup>th</sup> Five Year Plan Working Group in 2007-2012 by the RRA Network. Realising the vision in the form of Odisha Millets Mission as the country's largest initiative on millets and the global recognition of millets in declaring IYOM - was a proud moment for WASSAN!

Synthesising our own field experiences and that of many partners helped us to give shape to the Comprehensive Revival of Millets program in Andhra Pradesh (2016) as a state level program of the Department of Agriculture. The emerging learning through the efforts of the RRA and ASHA networks contributed to seeding the emergence of Odisha Millets Mission (2017), as a flagship program of the Government of Odisha and various other initiatives.



The policy proposition comes from a *systems analysis* – increasing productivity by crop systems intensification through agronomic measures, intensive community engagement on reviving millets in the local food systems, promoting processing enterprises and establishing market linkages and value-added enterprises need to be simultaneously taken up in a defined area (a Block). Initially, the trigger comes from bulk assured purchase at remunerative prices by the government for introducing into state nutrition programs and public distribution systems. The processes need to be decentralised, managed by the community organisations. The outcome we paraphrase as “*millets on farms and on plates*” evolving local economy around millets.

All of WASSAN's initiatives on millets are framed in the above systems understanding. A gist of these initiatives ongoing this year is as follows:

### ODISHA MILLETS MISSION (OMM)

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The program now covers 1,72,376 Farmers across 19 Districts have cultivating millets over 79,556 Ha of land in the FY 2022-23. A significant achievement of the program was procurement of 6 Lakh quintal of finger millet by the Odisha Government at the MSP of Rs. 3,578/- per quintals. 4,02,500 quintals of finger millet procured were distributed through PDS to 1.14 Crore ration cardholding families across 14 Districts. (see <https://milletsodisha.com/>).

WASSAN is serving as the Program Secretariat for the Mission supporting Department of Agriculture and Farmers Empowerment, Government of Odisha in designing the program strategies, policy development and M&E and learning; and extending capacity building support to the Facilitating Agencies implementing on ground. The program has created collaborative space for xx CSOs on ground.

The program has achieved several major breakthroughs and built national and international partnerships. The key activities include the following:

- In FY 2022-23, the Odisha Millets Mission was implemented in 139 blocks across 19 districts, involving 1,72,376 farmers who cultivated nutri-cereals on 79,556 hectares of land using improved agronomic practices with consistent efforts by the CSO Facilitating Agencies with the support from WASSAN team and the Department.
- **SEED SYSTEMS:**
  - The Department of Agriculture and Farmers Empowerment (DA & FP) in Odisha approved the Standard Operating Procedure (SOPs) developed by the *Working Group on Seed Systems* for the landrace seed system. A pilot study on mapping landraces was conducted in 17 blocks across 11 districts under the Odisha Millets Mission. Four Traditional Varieties chosen by farmers in the Participatory Varietal Trails from over 300 accessions were approved for release by the Department.

*This is the first ever instance of Traditional Varieties released formally by the Department of Agriculture in India.*

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### ● MILLETS IN PDS

- A significant achievement of the program was procurement of 6 Lakh quintal of finger millet by the Odisha Government at the MSP of Rs. 3,578/- per quintals. 4,02,500 quintals of finger millet procured were distributed through PDS to 1.14 Crore ration cardholding families across 14 Districts.
- Through the Public Distribution System (PDS) in FY 2022-23, a total of 4,02,500 finger millet was distributed among 1,13,76,521 ration cardholders in 14 districts of the state.
- FPOs are integrated with the overall system of procurement generating business for them.

### ● MILLETS PROMOTIONAL EVENTS

- Several millet promotional events were organised in 2022-23 to increase consumption.
- OMM collaborated with RRA network and National Rainfed Areas Authority in convening the People's Convention on Millets.
- These included stalls at Akshaya Tiritiya and Women's Business Mela, an urban internship program, Raja Festival celebrations, showcasing at Odisha University, participation in Food Pro event, promotion on World Kitchen Garden Day, showcasing at SIAL festival in Paris, stalls at Cuttack Baliyatra and Kalinga Fitness, and recipe demonstrations at SAI International School and Belgadia Palace, among others. The Program Secretariat took these initiatives in designing and organising along with the Department.
- OMM collaborated with the Department of Health and Family Welfare and the Department of School and Mass Education to promote millets in schools and hospitals across the state by evolving a common strategy.
- Partnered with the Department of Mission Shakti. Women are an integral part of this programme, and it has been helping members of women's Self-Help Groups (SHGs) to initiate millet-based entrepreneurship across the state.
- A framework was created for the International Year of Millets (IYoM) to boost millet promotion across diverse sectors. It engaged associations, restaurants, hotels, hospitals, SHG entrepreneurs, and guided collaborations with global agencies like FAO, WFP, APAARI, IFAD and others.
- Video and Coffee Table Book on Odisha Millet Mission released on the occasion of "Make in Odisha Conclave 2022". (<https://ommcomnews.com/odisha-news/publications-launched-at-odishas-international-millet-event-echo-global-commitment/>)
- The Odisha government declared to celebrate 10th November as Mandia Dibasa (Millet Day) every year. In FY 2022-23, the first Mandia Dibasa (Millet Day) was celebrated on 10th November.

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

- Odisha Millets Mission collaborated with Scheduled Castes and Scheduled Tribes Research and Training Institute (SCSTRI) to conduct a detailed change detection study on millet-based food habits of tribal people of Odisha.
- Collaboration with the Sports and Youth Services Department has resulted in millet tasting events with the Indian hockey team and the inclusion of millet items in sports hostel menus.
- The Bhubaneswar Development Authority (BDA) collaborated with the mission to promote millet awareness in parks and festivals, while the Bhubaneswar Municipal Corporation (BMC) has contributed by spreading awareness through captivating wall paintings and hoardings.
- The All-India Institute of Medical Sciences (AIIMS), Bhubaneswar, taken a step towards enhancing the nutritional value of patients' diets by incorporating millets.
- The Department of Agriculture and Farmers' Empowerment has partnered with FICCI to celebrate the International Year of Millets 2023, showcasing the widespread dedication of the mission to reach all segments of society and promote millets among diverse populations.
- Educational institutions like Orissa University of Agriculture and Technology (OUAT) and Xavier Institute of Management (XIMB) became valuable partners in organising millet tasting events and effective branding activities, demonstrating the versatility of millets.





## DECENTRALISED INCLUSION OF MILLET BASED RECIPES AS HOT COOKED MEALS THROUGH ICDS SCHEME

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**Brief overview:** State: **Telangana**  
Districts: **Bhadradi Kothagudem, Kumuram Bheem Asifabad, Jayashankar Bhupalpally**  
**4135 Farm Families**  
**3545 Acres of millets area**  
**238 Villages | 10 Blocks | 3 Districts**

- Supported the Department of Women Development and Child Welfare, Government of Telangana and NITI Aayog, Government of India.

A pilot initiative was taken up supported by Niti Ayog, Govt of India and Department of Women Development and Child Welfare, Government of Telangana to try out decentralised approach to enhancing consumption of millets through inclusion of millets in the Integrated Child Development Services (ICDS) scheme. The program focuses on including millets in the ICDS framework of the state of Telangana, setting up decentralised processing units and efficient supply mechanisms to cater to ICDS requirements, and facilitating local production, procurement, processing and supply to Anganwadi centres. These are accompanied by initiatives to increase awareness amongst households, Anganwadis' and community members on the nutritional benefits of millets.

The program outreached 4135 families extending millets area to 3545 acres in 238 villages in 3 districts (Bhadradi Kothagudem, Kumuram Bheem Asifabad, Jayashankar Bhupalpally). Seeds were provided for 9625 acres in both seasons and 34 community resource persons were trained in better agronomic practices.

The program evolved and promoted the concept of inclusion of 40 rows of millets in any existing crop system for meeting annual household requirements of the farmer family. The program tried out promoting nano-millet enterprises through millets processing using special purpose mixie-dehullers developed by WASSAN. 10 such micro-women enterprises were promoted accompanied with training sessions for women SHGs. In addition to supply to the AWCs, these have enabled household consumption by taking millet processing to doorsteps. In Jayashanker Bhupalpally's a larger scale Millet Processing Facility in Chelpur Village, operated by an SHG group, provided RTE meals to 100 AWCs.



As a part of Millets' inclusion in ICDS, 50 millet recipe training sessions were conducted on standardised recipes for Anganwadi staff. 110 GP-level Millet Food festivals conducted to generate awareness amongst community members. Bhadradi Kothagudem initiated a vital effort providing Ready-to-Eat Jowar millet meals, expanding to 1058 AWCs, benefiting 14941 children and 8828 pregnant/lactating women. Bhupalpally followed suit, benefiting 1432 children and 580 women.

The program has its own ups and downs mainly related to lack centralised supply of millets by FCI as envisaged. Shift to decentralised production and consumption strategies energised the communities around the active AWC centres raising awareness on millets among the families and encouraging millet enterprises.

## **Towards Malnutrition Free Gram Panchayats**

*Can integrating millets and pulses into the crop systems meet the challenges of malnutrition in a Gram Panchayat?* With the encouraging results observed from various millets initiatives, WASSAN team has taken up a program designed to promote civic action through mobilising two Gram Panchayats in three districts of Telangana to systematically address the malnutrition issues through promoting crop systems diversification. Promotion of millets in crop systems

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for farmers, nutrition gardens for landless, recipe training and competitions, making millets available in local shops were the strategies followed. The program starts with intensive orientation of Gram Panchayat leaders on malnutrition, advantages of millets and crop systems, leading to their resolution to work towards making the GP malnutrition free.

A simplified communication on 'integrate 40 rows of millets and pulses' in any of the existing crop system for household nutrition emerged from this initiative and is being extended to other programs. Promoting nano-millet enterprises with women and ensuring millets availability in local shops are also taken up as a part of this initiative.

The program is taken up under the Ford Foundation supported BUILD program to develop WASSAN's own capacities in working with Gram Panchayats.



# WATERSHED DEVELOPMENT AND INTEGRATED FARMING SYSTEMS (IFS)

Production systems in Rainfed areas are complex, fragile and highly vulnerable to climate. Strong inter-connection across diverse production systems designed to enable nutrient flow across the landscape are the hallmarks of traditional systems. Such diversity in production systems also strengthens livelihoods and helps in better risk mitigation. But these production systems are spread out across different specialized occupational groups coexisting within a landscape.

Popular perception of IFS is to see diverse production portfolios integrated at a farmer family. WASSAN, in contrast, considers IFS as strengthening different production systems *within a landscape* while the individual farmers may choose a combination of those that are relevant to them, i.e. integration happens at the landscape level.



The IFS approach in WASSAN evolved from its larger engagement with Watershed Development Programs, integrating farming systems with watershed development and livelihood enhancement. The programs aim at strengthening different production systems – rainfed, irrigated crops, commons, small ruminants, cattle, fisheries etc., through improving their natural resource base (soils, water resources, biomass, diversity), instituting effective support services and value enhancement for local consumption and markets.

The initiatives started around 2006-07 in Andhra Pradesh, evolved into ‘comprehensive pilots’ program of the RRA network in which Malkangiri was one of the pilot initiatives. The success of Malkangiri caught the imagination of the Government to scale up the program as ‘Special Purpose Integrated Farming Systems’ (SPPIF) program.

Several initiatives have taken shape in the year; the prominent ongoing programs related to IFS during the current year were the following:

1. Jiwi-Daah-Hasa, a Santhali name for the High Impact Mega Watershed Development program in Jharkhand.
2. Watershed Development Programs supported by NABARD.
3. Special Program for Promoting Integrated Farming – Odisha
4. Promotion of Sustainable Integrated Farming System through Multi-actor Partnership in Rayagada and Malkangiri (Odisha).
5. FOLU INDIA- Sustainable Rainfed Agriculture Program (FISRAP) in Satya Sai District (Andhra Pradesh), Vikarabad (Telangana) and Gadchiroli (Maharashtra).
6. Supporting SABAL, a consortium Program of Rain Forest Alliance as a Resource Organisation.



## ‘JIWI-DAAH-HASA’ - THE HIGH IMPACT MEGA WATERSHED PROJECT, JHARKHAND

**BRIEF OVERVIEW:** Jiwi-Daah-Hasa program, (a Santhali name meaning Life-Water-Earth) is a watershed development project funded under MGNREGS and supported by BRLF. Program is being implemented in 15 intensive blocks and 9 Non-intensive Blocks in 7 districts of Jharkhand. State PMU was set up to anchor the program in the state.

WASSAN served as the State Project Management Unit (SPMU) for the program from 8<sup>th</sup> January 2021 to 30<sup>th</sup> June 2022 and also, has responsibility of direct implementation of the project in Anandpur and Gudri Blocks of West Singhbhum district. WASSAN has also developed the project’s planning and data portal and maintaining it.

WASSAN developed the ‘ePRA’ planning tool for participatory watershed planning using hard copies of Google Earth image and a mobile planning tool for generating spatial database. The database from the participatory planning and field surveys are captured by the mobile application and is stored in the project’s web-portal. Designs and estimates are automated synchronising with the MGNREGS requirements, along with spatial representation of the plans. The entire operations are ‘paperless’ and relieves field teams of the drudgery of paper work and computations. (<https://jiwidaahhasa.in/> )

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

BRLF has taken over the role of SPMU since July 2022 while WASSAN continue with the implementation in the two Blocks and maintaining the project IT platform.

A total of 543 Watershed project DPRs were completed covering an area of 226869 ha and 110549 households. 47212 schemes were planned under MGNREGS during the tenure of WASSAN as SPMU with the intensive training of field teams of 15 CSOs involved in the project on the IT tools, watershed structure design and implementation.

In Anandpur Block, 48 watershed DPR plans covering 48 villages and 15000 Ha treatable area were completed and approved at Block level. A team of young Adivasi got well trained in the watershed planning processes and were oriented on agroecology with an exposure visit to tribal areas of Andhra Pradesh to learn about Desi Poultry, Eco Farm Ponds, Natural Farming, Poly cropping systems, Fisheries, Crop Diversity Blocks and FPC. These initiatives are now being taken up in the Anandpur Block. The team was also taken to Odisha for an exposure visit to millets; the tour supported by NABARD. Further, field level training was conducted for CRPs, PRI representatives, Mate-MGNREGA, Bhagwan sakhi and Farmers on Roles and responsibilities, MIS systems, layout, soil and water conservation works etc. Several of these initiatives started in the Block after the exposure visit supported by NABARD.

WASSAN's work in Anandpur Block is supported by SBI Foundation through BRLF.



## WATERSHED DEVELOPMENT PROGRAMS (NABARD)

**BRIEF OVERVIEW:** WASSAN has been partnering with NABARD since long on Watershed Development projects under WDF. Kumarambheem watershed project, in Asifabad district of Telangana reached Full Implementation Phase for 1095 ha area belonging to the Kollam Tribal community. Salpalguda watershed completed its Capacity Building Phase in September 2022 and will be moving towards FSR phase. Climate Proofing Project is a top-up on the completed watershed projects to initiate climate proofing works. Three CPP projects were sanctioned by NABARD in Aswaraopet, two projects in Asifabad mandal of Kumrambheem Asifabad district in Telangana state. The projects demonstrated several technological interventions such as Grid Lock method in-situ conservation, Bio input Resource Center, Silage making, Solar fencing for crop protection from wild bores, Pandal Based Vegetable cultivation, solar Hydroponic Fodder, Compost pits, Desi Poultry night shelters etc.



## SPECIAL PROGRAM FOR PROMOTING INTEGRATED FARMING (SPPIF)

**Brief Overview:**

State: **Odisha**

Districts: **Malkangiri, Koraput, Rayagada, Gajapati, Nuapada, Bolangir, Kalahandi, Kandhamal, Mayurbhanj**

**46,311 Farm Families | 13,760 Ha Area | 309 Gram Panchayats**

**34 Blocks | 9 Districts**

<https://integratedfarming.in/>

**WASSAN's role: Program Secretariat and District Coordination**

SPPIF is a landscape-based program to strengthen diverse farming systems through location specific interventions planned by the community. Sustainable and integrated farmers' practices are promoted with the objective of enhancing productivity and livelihoods of farmers. Women SHG and FPOs are key drivers of the programmes of anchoring enterprises, marketing and value chain interventions.

Initiated by the Odisha State Department of Agriculture and Farmers' Empowerment, it follows a cluster-based approach consisting of 100 Ha each of contiguous patches with 2-3 patches within each Gram Panchayat. The program is designed to target 600 farmer families covering 250 Ha land of cropping areas over a period of 4 years. *Schemes of various departments are being utilised in the program paving way for effective integration and this convergence amidst Agriculture, horticulture, livestock, fisheries and agroforestry.* Enabling convergence is a unique proposition of the program's design.





While WASSAN anchors the state level program secretariat and district units, CSOs will implement the project in the Blocks. A total CSOs are partnering in the project.

### **Key Activities of 2022-23:**

- Crop diversification and intercropping methods implemented across 5051 Ha with the focus on promoting pulses and oilseeds, as an alternative to traditional paddy and millet crops in midlands and uplands.
- Local seed systems were strengthened and access to quality seeds enhanced by establishing 16 Community Managed Seed System (CMSS) through Women Self-Help Groups and 8 CMSS through Farmer Producer Organizations (FPOs).
- Productivity and sustainability in vegetable farming was enhanced through promotion and establishment of 7311 units (10 cents per unit) of the trellis system of cultivation.
- 7012 goat shelters and 22,433 backyard poultry shelters were constructed to contribute to improved animal husbandry practices.
- Supported 164 'Desi Poultry Entrepreneurs' in establishing indigenous chick production units.
- Established 32 goat rearing units and 15 broiler poultry units through Women Self-Help Groups in convergence with the Department of Animal Husbandry and Veterinary Services (DAHVS).
- Benefitted 2640 farmers through the support of quality fish seed stocking (fingerling/yearling) in nine districts. Supported 54 farmers in establishing Nano Fish Feed Mixture (NFFM) units, promoting sustainable and efficient fish farming practices.
- Swabhiman FPC, Malkangiri, was honoured by the Hon'ble Governor of Odisha for securing crops from dry spells under the Agriculture Category at UTKAL SAMMAN 2023.
- The Protective Irrigation Initiative received the Excellence of Governance award from the Hon'ble Home Minister, Government of India, in New Delhi on January 17, 2023.

In tune with the concept of strengthening landscape-based farming systems, the SPPIF program has been demonstrating the concept at a scale through convergence.

# PROMOTING SUSTAINABLE INTEGRATED FARMING SYSTEM THROUGH MULTI-ACTOR PARTNERSHIP (SIFS)

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**Brief overview:** State: **Odisha**  
Districts: **Malkangiri, Koraput, Rayagada, Gajapati, Nuapada, Bolangir, Kalahandi, Kandhamal, Mayurbhanj**  
**4510 Farm families | 26,392 Ha area | 55 Villages |**  
**5 Gram Panchayats | 5 Blocks**

■ Supported by WHH India

Multi-actor partnership is facilitated at the Gram Panchayat levels in this program for effective convergence between schemes thereby empowering smallholder farmers to significantly improve their incomes, diet diversity and farm productivity.

Extension workers at the grassroots involved in preparing the Gram Panchayat Development Plan (GPDP) and farmers are trained to develop sustainable integrated farming programs at the GP levels; thereby enabling farmers and extension workers to learn about the integration and interdependence of different production systems.

Aligned with village livelihood planning, various projects related to animal shelters and protective irrigation were implemented through convergence with Integrated Farming Schemes funded by the Departments of Agriculture and Farmers' Empowerment, specifically in the Malkangiri district.



## Key Activities of 2022 - 23:

- Rapport-building and stress mapping exercises carried out within villages to assess agricultural practices, natural resource management, and attitudes toward agro-ecological farming and to analyse challenges and attitudes.
- 11 Training of Trainees (ToT) sessions in core blocks conducted, including micro-planning for extension workers and a specific session on Sustainable Integrated Farming Systems (SIFS)
- 55 micro planning sessions and 5 General Village Development Plans (GPDPs) were developed and approved by the Palli Sabha as a result of multiple interactions with community members, Government extension workers, PRI members, and various stakeholders.
- Four Farmer field schools (FFS) conducted to build capacities of the farmer families and GP households in agroecology-based farming and SIFS principles.
- 27 poultry shelters, and 10 goat shelters under SIFS models focusing on integrated farming approaches developed for demonstration and learning purposes. Based on local resources, these models encouraged agricultural diversification, including livestock integration with farming.
- 8 Farm ponds excavated to engage farmers in fish culture
- Ginger, groundnut and sunflower seed production were initiated. Technical support for crop planning and selection and addressing water scarcity challenges in hilly regions were provided.



## NATURAL FARMING IN TRIBAL LANDSCAPES

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WASSAN has been invited by the ST&SC Development Department, Govt of Odisha to develop the program design and guidelines and also to anchor the Project Management Unit of the program. The program is supported by OMBADC of Govt of Odisha. The program envisages transformation of tribal agriculture landscapes in 6 districts to natural farming. The program builds upon the social capital of the women SHGs, motivating them to move away from chemicals and transit to natural methods of cultivating diverse crops. It also envisages establishment of support systems as enterprises to enable farmers to practice natural farming methods easily.

The program is at an initial stage.

## CRZBNF: CLIMATE RESILIENT ZERO BUDGET NATURAL FARMING

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CRZBNF was an entry program for WASSAN to get intensely into learning and exploring natural farming. This year was the concluding year for a three years CRZBNF program supported by Azim Premji Foundation. The program also generated several experiences that were mainstreamed into the AP Community Natural Farming (APCNF) program of Government of Andhra Pradesh.

The program was taken up in the Tribal areas of the North Coastal AP – (ASR and Manyam districts) and the dryland areas of Satya Sai and Chittoor districts of Rayalaseema region. The following models emerged from the program many of which are now widely scaled up across multiple states. Covering soil for larger number of months, increasing incomes, diversification of farms and income portfolios, intensive and livestock integrated systems – all this using natural methods are the principal tenets of the model building.

- The Navadhanya crop systems were standardised and expanded in area. A total of 2580 farmers have taken up in 3223 acres of land generating about Rs.10000 to 15000 income per acre additionally every year; this is a diversification of the monocrop of groundnut.
- Various crop diversification models were tried and established. These are location specific. In Tribal areas diversification of monocrop of Ginger, cashew orchards and other crop diversification models were established. In Madanapalle area – extending the diverse crops in mono-crop of tomato got better incomes without applying any chemicals.
- Guli Ragi is a major breakthrough in the yields of finger millet crop and is now widely practiced. The yields up to 10 q per acre were obtained on an average where the practices are followed.
- The Sama (little millets) yields also increased multiple fold using line sowing and single seedlings (SRI principles) and natural farming methods.
- 'Fallows to Fodder' – is another model successfully established where all the fallow lands in the village are mapped and through discussions brought into multi-species fodder

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

production using natural farming methods. In Ayyavaripalle village, the entire village moved from fodder deficits to surplus in the first year itself!



- Integration of Desi-poultry into orchards – while providing manure also generated substantial incomes to the farmers.
- A major successful intervention is to convert a farm-pond to an Eco-Farm Pond with intensive multi-species vegetable cultivation, fish production in the farm and an intensive vegetable cultivation. Each such farm pond generates about Rs.35-40000 annually. 124 eco-farm ponds were developed sourcing funds from Coromandel Fertilisers- CSR as a part of the Gram Panchayat Plans. 254 water bodies are marked for conversion.
- A major effort is in developing support systems to enable farmers to practice natural farming easily. A major breakthrough is developing Bio-input Resource Centres. These Centres are automated with solar energy and an aerator with a timer. Urine collection was also automated and centralised. 20 BRCs are now established within the program areas and the technology has spread to multiple states.
- Community managed Seed Systems were established with clear protocols on collection of traditional varieties, their characterisation and selection and multiplication. These has become a regular business of the FPOs. 13 seed committees emerged, and they are able to supply 6349 kg of diverse traditional varieties to farmers for cultivation.
- **Water Collectives for Cropping Intensification in Tribal Areas:**
  - Water collectives were facilitated in the tribal areas. These use lift irrigation from streams using solar energy or the natural gravity flows. About 500 acres were brought into such water collectives each spanning 30 to 50 acres. All the farmers in the water collectives pledged to practice natural farming intensively.
    - Many fallow lands were brought into cultivation by the water collectives.

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

- In the groundwater dependent Annamayya district, Water Collectives were established by collectivising borewells. A total of 122 Borewells were pooled into common pipeline grids under the water collectives. About 327 acres of rainfed lands were secured with these interventions. In an extended program, 728 farmers formed into 52 groups to save crops grown in 2340 acres.
- Livestock primary health care services is another area of streamlining support services. This was extended to about 6000 families through trained vaccinators.
- Agriculture Service Centres were established to enable easy access of farm tools and other equipment including smaller machines on rental basis. Four such ASCs were established in Annamayya and Sri Satya Sai districts. In ASR and Manyam districts, two ASCs were established.
- A total of 64 women from both the RS and NC region turned into micro entrepreneurship to service neighbours in processing of Millets. Modified Millet Mixies procured by these women and started serving others. A total of 1105 households accessed service from these women and processed 12.8tons of Millets and earned Rs.87,400 through service.

The CRZBNF program has generated a wealth of experiences, and these villages have now become sites for exposure and on-field learning.

## ECOLOGICAL INTENSIFICATION OF TRIBAL ECONOMIES

HDFC Bank's *Parivarthan* program supported WASSAN with a CSR grant to work on the concept of ecological intensification of Tribal economies. Project- Ecological Intensification of Tribal Economies- 2022-2023

This project is to Strengthen the economy of Tribal Gram Panchayats through Water Resources Development, Ecological Intensification of Production Systems and Developing Value Chain. It has outreached over 800 tribal households during the current year.

WASSAN is working with tribal communities in the Manyam district, covering **four clusters**: *Seethampeta 1, Seethampeta 2, Veeraghttam, and Bhamini*. According to the baseline survey conducted, the mortality rate of birds is high due to the absence of proper shelters, lack of maintenance of existing shelters, and inadequate knowledge of package practices for raising birds. Diseases such as Ranikheth spread quickly from bird to bird, causing the death of many birds and resulting in relatively lower incomes for farmers. To address these issues, the birds require regular maintenance, proper shelter, and nests for chicks. 400 farmers receive support from the HDFC project in building poultry sheds, now they can earn a steady income, farmers treating it like having an ATM CARD, and improving the nutrition intake in the food consumption of these tribal families.

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

There are five Desi Poultry breeding farms, and 395 individual household night shelters were established. From project, the materials asbestos sheets, mesh rolls, ridge sheet and cement bags given to the **400 households**. Shade net is given to the four desi poultry entrepreneurs for fencing purpose.



## WATER COLLECTIVES FOR CROP INTENSIFICATION

About 140 acres were brought into Water Collectives; each collective spans around 30 acres of areas. Water is sourced from a stream using solar irrigation systems. These are for community irrigation using Solar energy for using stream water to protective irrigation of crops and increasing cropping intensity. Out of these, 40 acres at karraguda village in Goidi Panchayath in Seethempeta Mandal and 100 acres in Chinnagora Village in Veeraghattam Mandal in Manyam district.



Two solar mobile energy carts are given in Mullanka village of Veeragattam Mandal and Maniga village of Bhamini Mandal. Solar energy cart will be useful for the farmers where there is no electricity; they replace oil /diesel engines. Using solar energy carts for irrigation saves money, increases self-reliance, and reduces pollution. The technology serves irrigating from dispersed water bodies as the carts are mobile and can be installed quickly.

Three Bio-input Resource Centres (BRC) were established at Sanni Colony Village of Bhamini Mandal, Jakkaravalasa and in Chinnagora Village in veeraghattam mandal to brought under organic farming up to 100 acres in each of the respective mandals; this activity includes paving of 17 cattle sheds lining, automated collection and fermentation units.



## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

Farmers selected for Cashew Orchard intensification and Productivity enhancement. Two labor group formed and selected 2 Chain Saw entrepreneurs for doing the pruning and trench works. 43 acres of cashew orchard land were pruning work has been completed in Seethampeta cluster areas.

37 farm ponds were excavated in four cluster villages of Seethampeta, Veeraghattam & Bhamini Mandal. All these farmers merged with fisheries Interest Group (FIG) for grow out fish culture

Following a participatory exercise on strengthening local circular economies, the women SHGs and the Gram Sabhas identified several small enterprises that can be economically viable and at the same time reduce the time for households to go to faraway processing facilities. **Processing hubs** were established in the locations identified by the community; different kinds processing facilities were established in the 4 GPs; these are Rice Mill (4), Oil Extractor (4), Flour Mills (12), Grader (4) and De-Stoner (4) machines. And taken flour cum rice mill for making poultry feeds preparations.

For establishing of Agriculture equipment's Hiring Centers (CHC) in all clusters of Bhamini, Veeraghattam and Seethampeta mandal procured some equipment's like Cycle Weeder (15), Multi Grain Thresher(4), Bed Makers(4), Grader(1). Chain Saw(4), Tiwan Sprayer (1), Power Weeders(4), Oil Engines(4), Sprinkler Pipes(25 sets) and other small agriculture equipment's to reduce the drudgery in village level.

The program is providing good learning on how infrastructure development when planned along with the community can bring in changes in the local economies in the tribal areas.



# PROJECT SABAL (STRENGTHENING SUSTAINABLE AGRICULTURE AND BIODIVERSITY ACROSS LANDSCAPES)

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**Brief overview:** State: **Andhra Pradesh**  
Districts: **ASR, Manyam, Kadapa, Nandyala, Vizianagaram**  
**Andhra Pradesh**  
**Target:** 79 habitations with 4532 households in 12135 ha area

■ Supported by RainForest Alliance

WASSAN as a technical agency has been partnering with the Rainforest Alliance to coordinate and guide the SABAL project being implemented in the Eastern Ghats region of Andhra Pradesh in collaboration with RYSS and FES. The project is funded by GEF, UNEP and IUCN. Purpose of the project is to achieve a transformation of land management into sustainable agricultural systems and attainment of Land Degradation Neutrality (LDN), biodiversity conservation and improved rural livelihoods in Andhra Pradesh and Karnataka. It will reduce land degradation, conserve biodiversity and ensure the flow of ecosystem services in priority landscapes in these States through a holistic programme of policy reform, sustainable agricultural practices, multi-stakeholder landscape governance, market development and public-private finance.

The five years project started in the month of July 2022 and continue till 2026. The project has Identified 8 Micro Landscape areas for implementation; WASSAN is extending support in developing methodologies and tools for planning using spatial database, field support for implementation, developing MIS and in policy interface.



## KEY ACTIVITIES/ ACHIEVEMENTS (2022-2023)

The project is taking shape and is in its initial period. A total of 4532 families covered from 79 villages of 8 Micro landscapes areas and the project is being implemented intensively in 12135ha of land out of which 35% is under forest land and 10% under common lands. Micro action plans were prepared along with profiling of each micro landscape area.

Fisheries development was taken up in six landscape areas for enhancing local food security and livelihoods; this includes training of the local communities on the fisheries. Two spring-shed project proposals were developed and submitted to NABARD for Kondabaridi and K.G. Pudi areas. 1000 families were supported with seed kits for developing kitchen gardens. Integrated fisheries development initiated in 6 landscapes for enhancing local nutrition.

## FOLU INDIA – SUSTAINABLE RAINFED AGRICULTURE PROGRAM (FISRAP)

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WASSAN is partnering with the Food and Land Use Coalition (FOLU)- India on themes related to rainfed agriculture; this is a part of their international program in India and Ethiopia supported by the IKEA Foundation.



## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

As a part of the Phase 1 of the project, landscape level action plans are developed in Vikarabad and Satya Sai districts of Andhra Pradesh for wider spread of the sustainable and regenerative agriculture practices in the rainfed areas. The plans emerged from a survey of 397 farmer households. These plans will be implemented in Phase 2. CEEW, TERI, RRA Network and the PMU team of FOLU along with WASSAN are involved in developing the methodology and survey instruments.

The team also interfaced with different line departments and the district administration and also the public representative in the legislative assembly explaining about the project and seeking longer term collaboration. Several training programs were organised.

Various practices related to agroecology such as crop diversification, pre-monsoon dry sowing, promoting indigenous rice varieties under natural farming, reducing usage of chemicals etc., were introduced in the program areas in a limited scale.

WASSAN anchored an exposure visit of FOLU-Ethiopia team to the Vikarabad site along with RRA network and FOLU-India. Senior government officials and CSOs from Ethiopia were part of the exposure visit. WASSAN also hosted a field visit of a member from IKEA Foundation.

## REGENERATIVE, PRODUCTIVE AND CLIMATE RESILIENT LANDSCAPES

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WASSAN in collaboration with Rainmatter Foundation and RRA Network taken up an initiative to co-create 'an ecosystem of support services enabling smoother transition to regenerative and climate resilient agriculture'.

**Location:** Jharkhand: Kantasole Gram Panchayat in East Singhbhum district in partnership with Kalamandir, a CSO in the Eastern high rainfall semi-arid); Sakri Gram Panchayat, Baijnath Block, Kangra (Himachal Pradesh) in the Himalayan landscape and Panjra Bothali, Arvi, Wardha (Maharashtra) in the Deccan landscape.

An array of participatory tools to profile village economies, assessing the potential impacts of climate change, ecological and livelihood crises and evolving place-based community response to the issues identified has emerged from the program.

In Kantasole the 'sense of the house' exercises resulted in flagging the issues of water availability, need to move towards natural farming and extensive cultivation of vegetables emerged as the priority. The plans were endorsed by the local Tribal community leadership. In Kantasole, Jharkhand – Kalamandir team and the local community resource persons initiated

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

action on water security plans to source water for at least 10 households in each village for vegetable production, exploring solar base irrigation systems; spreading natural farming methods to over 100 farmers, paving the livestock sheds for collection of cow-urine, trying out pre-monsoon dry sowing for improving soil fertility and multi-tier farms with foraging poultry are some of the initiatives taken up by the community.

In Sakri in Kangra district of Himachal the engagement was with the Gram Panchayat where a woman is the elected Pradan. The Panchayat presents a contrasting picture of relatively well-off society not much dependent on agriculture. 'Sense of the house' exercises conducted along with the women SHGs and Gram Panchayat identified the abandoned livestock turning wild, revival of Kuhl, the traditional irrigation systems and their management, developing indigenous seed systems and moving towards natural farming. Solar based fencing and other attempts at addressing the issues along with the Gram Panchayat did not materialize well.

In Arvi, Wardha in Maharashtra the 'sense of the house' exercises resulted in a focused initiative by the community on reclaiming the irrigation system. Water resources planning was taken up and community approached the irrigation department and could get the canals repaired.

**Sense of the House tool:** Following the landscape level workshops, a comprehensive tool building upon participatory rural appraisal (PRA) approach was developed. 'Sense of the house' is a set of participatory exercises (e-PRA, Fasal Chakra, Basket of needs and others) that enable the community to visualize and discuss the ecological and economic profile of their GP.



# ENGAGING PASTORAL COMMUNITIES

## Engagement with Pastoral Communities

Poda Thurupu cattle is the 1<sup>st</sup> cattle breed registered in the state of Telangana in the year 2020. WASSAN in collaboration with ICAR – CIRC (Central Institute for Research on Cattle) has initiated a program for the improvement of the Breed and strengthening livelihoods of the breeders by integrating with farming practices with agro-ecological principles.



Under this project, a total of 1802 Poda Thurupu cattle from 12 villages were vaccinated with Raksha TrioVac during monsoons and before migration with the support of the Assistant Veterinary Surgeon of the State Animal Husbandry Department, Nagarkurnool district. Additionally, to boost immunity and nutrition intake capacity of the cattle, two packets of mineral mixture (weighing 1 kg per packet) were provided to each of the 236 breeders associated with the project.

In order to establish open nucleus herds of Poda Thurupu to promote selective breed improvement process, 21 identified herds based on the scientific parameters and criteria preferred by communities. Through participatory evaluation (scientists, breeders and CSO representatives) 10 herds will be selected for regular monitoring.

As a part of demonstration, cattle shelter along with solar operated Dravajeevamrutha, a bio-fermentation unit, which uses urine and dung collected from the cattle shelters as raw

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

materials, have been installed, pilot tested and made functional. In the pilot phase, 8000 litres of *Drava-jeevamrutham* were prepared, 750 lt of which has been applied to the chilli farms by four farmers. The use of DJ in farm cultivation contributes to WASSAN's ongoing efforts to integrate and capitalise on livestock utility in natural farming practices.

A scoping study was undertaken to identify the implements that could be fabricated for reducing workload and improving work efficiency and functionality in the farms. Both bullock-owners cum operators and consumers of the bullock-services (farmers) were interviewed to understand the needs. Field trials of existing implements were undertaken in Amrabad and an action plan for how customized implements could be adopted by farmers was devised.

A study was constructed to understand the potential milk and milk product value chain of the Poda Thrurupu Cattle. Amrabad Poda Lakshmi Gavu Sangam received its Breed Registration Certificate from ICAR-NBAGR on February 16, 2023, at New Delhi.

Poda thurpu herders have also been actively participating in capacity building programmes and events for pastoralists in India. President of the Amrabad Poda Lakshmi Gavu Sangam interacted with Shri Parshottam Rupala, Cabinet Minister, Ministry of Fisheries, Animal Husbandry and Dairying during a Pastoralist Convention in Bhuj, Kachchh, Gujarat in January 2023.

WASSAN has been engaged with Pastoral communities to strengthen their institution for the implementation of Community Forest Rights under RoFR Act 2006 for pastoral communities in Telangana. A program has been initiated in collaboration with Centre for Pastoralism (CfP), CONARE in **40 villages**, covering **17197 households** (HHs), mainly belonging to the ST, PVTG, SC and OBC categories are taken up for intervention. The estimated CFR area of a village in the project intervention area is around 100 – 200 acres. It was assumed that approximately **6150 acres of CFR area** will be covered under the present project.

In the year 2022-23, Forest Rights committees are formed and PRA Mapping and Natural resources sharing mapping has been successfully completed in 18 villages out of 21 first phase selected project villages. Collection of evidence for filing of claims has been initiated.

# ENABLING IMPACT AT SCALE - ECOSYSTEM SUPPORT SERVICES (ESS) APPROACH

## **Millets to Millions - 'Millet Mentor'**

Millets are an essential element of climate resilient and sustainable agriculture. They are critical for diversifying cropping systems as well as improving household nutritional status. Widespread consumption of millet by all socio-economic classes, especially the rural communities, can be achieved only through a comprehensive approach. There has been a need to strengthen the millets value chain with a focus on local consumption. This has been a consistent challenge across all millet promotion investments in the past. To tackle this, the need was felt to build a supportive ecosystem where critical gaps around technical, business knowledge as well as business linkages for





millets are addressed, especially for small entrepreneurs-SHGs, FPOs, individuals.

The 'Millet Mentor' initiative was conceptualized to be able to provide this supportive platform to entrepreneurs. The main objective of the initiative is to bring experts and enterprises on a common platform and develop mechanisms through which entrepreneurs can access critical technical and business development services effectively.

### **Key activities undertaken:**

- Situation analysis in pilot landscape-Odisha-enterprises supported under Odisha Millet mission /other enterprises
- Designing the initiative-needs, services, clients, outreach, knowledge gaps
- Developing knowledge material by documenting practical knowledge about decentralized small scale millet processing
- Participation in events to increase outreach for Millet mentor services
- Partnering with key experts/stakeholders with rich experience in processing/sales of millets and millet products

### **Input Systems for Natural Farming: / Bio-Resource Centres**

Bio inputs refer to concoctions prepared from cow dung, cow urine, biomass and some microbial cultures. Bio-input availability is a pre-requisite for transition into chemical-free natural farming in a given landscape. Bio-input resource centres are essentially village-level shops which produce these concoctions in bulk for supplying local demand. This makes the transition to natural farming easy and less cumbersome. At the same time, it provides opportunities for village entrepreneurship. WASSAN has experimented with standardized automated BRC units which have addressed issues of local urine collection in bulk and regular stirring for fermentation etc.

Scaling up this and similar models is critical for promoting natural farming at scale in the country. WASSAN hosted a National Workshop in partnership with National Institute of Plant Health Management (NIPHM) and National Coalition for Natural Farming (NCNF) in September, 2022. The workshop saw participation from diverse stakeholders - Farmers, BRC Entrepreneurs, NGOs, Researchers, Experts, Financial Institutions etc. The workshop was instrumental in building an understanding of the situation on ground in different states as well as forging connections with critical stakeholders.

### **Market Systems with Collateral Management- a pilot initiative**

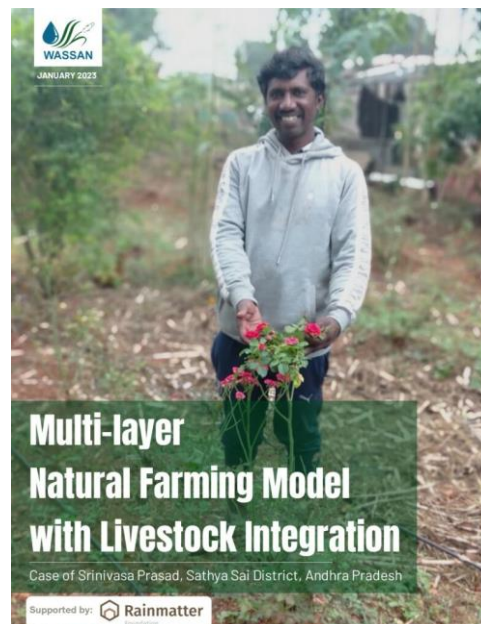
Price risk is one of the major risk factors faced by farmers (aggravated in the case of small and marginal farmers). Market forces dictate price fluctuations, farmers end up selling when prices are low as they are in need of cash and cannot hold the product, other factors such as lack of storage facilities and collateral loan facilities for the produce, further prevent them to take advantage of price rise. To address these challenges, a micro-warehousing pilot -*Gram Mandi* or Village Trade Centre (VTC) was designed and rolled out in March 2023. The main features involved flexibility on part of farmers to sell/store their produce (at the VTC), benchmarking

prices against quality during procurement, affordable collateral credit for farmers upon storage, all operations through digital portal etc.

### **Intensive and (livestock) Integrated farms**

A detailed case study of a multi-layer farm in Kadiri, Andhra Pradesh, highlighting its potential for income generation, nutrient recycling, and biomass generation was documented to build a case for supporting such farms at scale.

(Go to <https://www.wassan.org/case-studies/> )



### **Developing a framework for strengthening ‘Circular and Sustainable Local Economies’**

In the process of learning and evolving approaches to work with Gram Panchayats (GPs) (local civic bodies) an initiative on mobilising Gram Panchayat leaders in promoting agroecology in their landscapes was taken up. This was supported under the Ford Foundation’s BUILD program and taken up in partnership with Sanjeevini, a CSO, farmers groups and Sovva and Sagara Gram Panchayats in Dumriguda Mandal of ASR district of Andhra Pradesh.

With the inputs, the GP leaders in Sovva have taken a pledge on converting their Panchayat into chemical free farming. This was followed by ward-wise planning of the natural resource’s development led by the ward members. Tools using GIS and mobile applications were developed for purpose. Entire Sovva GP landscape and economy were profiled. The water resources plans were implemented by sourcing support from Coromandel company’s corporate CSR. 50 farm ponds were constructed under this program. Various initiatives on water collectives, Bio-input Resource Centre, natural farming extension are in the process.

### **Farm Easy- Developing Renewable Technologies for Enabling Agroecology**

‘Farm Easy’ evolved as a program in WASSAN to focus on developing technical solutions enabling farmers to practice natural farming/ agroecological methods with ease and reduced workload. Internal capacities in this area have evolved with the Sustain+ program in partnership with SELCO Foundation. Technology development has evolved as a vertical in WASSAN

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

particularly in the areas of millets processing, irrigation and agroecology evolved as a part of the BUILD program.

Several variants of the mobile-energy carts powered by solar energy evolved to provide on-site irrigation facility for farmers using dispersed and seasonal water bodies without grid-connectivity. These range from backpack systems with 0.25 hp to bullock-cart drawn 3 hp pumps. Millet mixies (nano-dehullers) have now spread and supporting over 100 women enterprises in interior tribal areas where communities left small-millets consumption due to labour intensity in their processing.

Automated Drava Jeeamrutam units for enabling fermentation using solar energy are now standardised and are taken to many places. Several other technologies are in the pipeline.



# NETWORKING RESEARCH RAINFED AGRICULTURE NETWORKING

Networking, partnership building and co-creation of programs and initiatives is core to the work of WASSAN. The two networks – Revitalising Rainfed Agriculture Network and National Coalition on Natural Farming have expanded their outreach and impact.

## **NETWORK HUB OF THE REVITALISING RAINFED AGRICULTURE NETWORK**

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The RRA Network (RRA-N) has evolved into a large platform for civic engagement on issues constraining rainfed agriculture. The RRA network platform brings together civil-society organizations, scientific community, policy makers, farmers' organizations etc. from across India. WASSAN hosts the Network Hub of the RRA network. The network focuses on strengthening the agenda of Rainfed Agriculture through increased research, engagement with policy development, enhanced capacities and knowledge across network members and developing platforms for cross-sharing. These are carried out through state chapters and thematic working groups. RRA network hub was supported by grants from GCFC.

### PEOPLE'S CONVENTION ON MILLETS FOR MILLIONS

- A two-day national event in New Delhi on February 24-25, 2023, titled "People's Convention: Millets for Millions" brought together 500 stakeholders from 28 states and union territories. The participants include tribal farmers, seed champions, processing enterprises and government representatives. Policy recommendations derived from these discussions were submitted to the Ministry of Agriculture & Farmers' Welfare, Government of India. Several organisations across India contributed to the 'Millets to Million' convention.
- A Millet Theme Song titled "*Hum the, rahenge!*" (We were there, will be there) released as a celebration of the origins and varieties of millets. Composed by Smt Charul Bharwada and Shri Vinay Mahajan, the song is a tribute to the rural people who cultivate and consume millets, affirming that these grains have always been at the center of people's lives. It's a reminder of the enduring value and importance of millets to our communities, and a call to continue cherishing and preserving this vital aspect of our cultural heritage.



## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

**Community Managed Seed Systems:** National Rainfed Agriculture Authority (NRAA) and RRA Network joined hands to develop agroecology-based Standard Operating Procedures (SOPs) for community-managed seed systems to preserve traditional varieties/landraces.

**Working group on “Livestock – RRA Network”** formed for strengthening extensive livestock systems and pastoralism on which larger numbers of livestock rearers depend. The Working Group participated in the first Round Table on International Year of Rangelands and Pastoralists (IYRP) 2026 and are supporting the Government of India in conducting the first-ever Pastoral Census in Andhra Pradesh and Telangana.

A collaboration with the Maharashtra Knowledge Corporation Ltd evolved with the **Maha RRA network (MahaRRA)** to develop district plans. The Karnataka Chapter focused on understanding in much detail the multi-crop system ‘Akkidi Saalu’ and reviving it in Karnataka.

The **Himachal RRA Network (HimRRA)** organised a three-days training program on the technicalities of reviving Indigenous Seeds & Seed Systems, and a 4-day training program on “Natural Farming: Principles & Practices” conducted in partnership with MANAGE and SAMETI. An action plan has been developed to promote the cultivation of indigenous seeds and millets in three districts through Natural Farming in Gram Panchayats.

## NATIONAL COALITION FOR NATURAL FARMING (NCF)

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WASSAN is anchoring the secretariat of the National Coalition formed to further Natural Farming in India. The NCF aims for collective action of the civil society in scaling up natural farming across India by building grass-roots capacities of the organisations working on ground and enabling dialogue to further be understood on agroecology. The Coalition expanded by this year to include 500 partners and over 1400 members. It has 8 active state level coalitions (in the states of Gujarat, Himachal Pradesh, Jharkhand, Kerala, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh).

The coalition actively promoted Bio-input Resource Centres- over 300 such smaller enterprises were promoted by various organisations after they received capacity building inputs. It has brought out the farmers’ stories on natural farming – “spreading roots”. Developed collaborations with various government agencies and Gram Panchayats. It has signed MoUs with NCF and MANAGE as knowledge partners



## **UNDERSTANDING THE TRADITIONAL CROPPING SYSTEM OF INDIA**

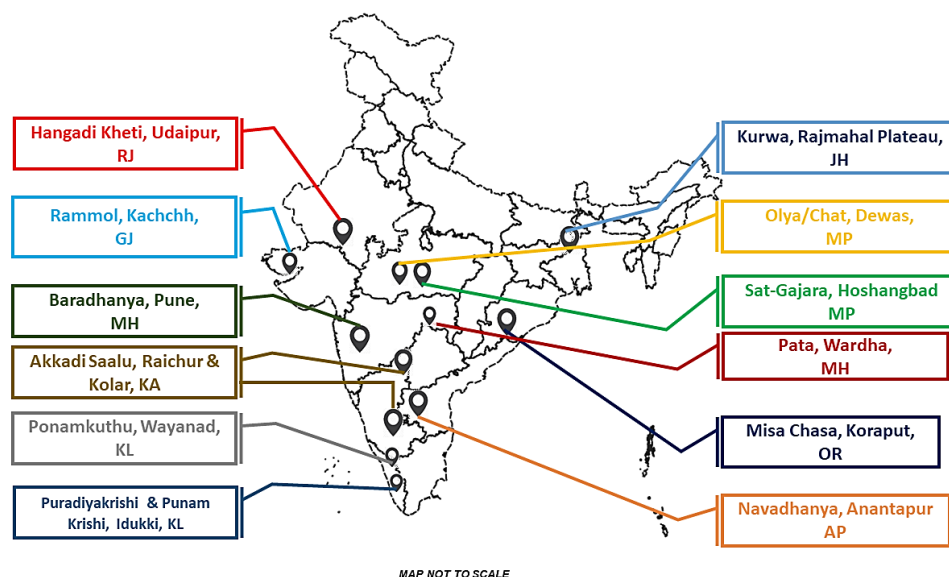
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A comprehensive study was undertaken as part of the TIGRESS initiative (Transforming India's Green Revolution by Research and Empowerment for Sustainable Food Supplies) of the University of Cambridge to understand the traditional multi-cropping systems that are prevalent in various regions of India across agroecological conditions prior to Green Revolution.

The study documented 12 multi-crop systems in different agroecological conditions across the country. These crop systems are mainly rainfed and consist of multiple crops (over 8 crops) with specific crop systems design. The study was carried out in 9 states with equal number of partners. The traditional crop systems characterized by features such as multi-crops, single-time sowing yielding multiple harvests at various intervals, multi-tier canopy structures, prolonged soil cover, and specific crop phenotypes seems to be prevalent before the green revolution.

## ■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

Twelve different crop systems were documented as indicated below:



## ECONOMIC AND EMPOWERMENT BENEFITS OF MILLET PROCESSING AND MILLET VALUE ADDITION VENTURES BY WSHGS (KORAPUT)

The program was taken up in partnership with the University of Greenwich, University of Kent and the University of Brunel- in UK and IGIDR, Women SHGs of Odisha (Mission Shakti), Govt of Odisha and WASSAN; it is supported by 3IE (International Initiative for Impact Evaluation).

The program envisages promotion of millet-based processing and value addition enterprises by WSHGs through capacity building intervention involving trainings, exposure visits, participatory machinery development, recipe innovation, nutrition profiling, stakeholder liaison and market linkage of products. It has an outreach to 1669 farm families in 87 villages of Koraput district of Odisha.

Six training modules were developed that includes, connecting millets to roots; Health benefits of millets; Introducing OMM Importance of collectivisation; Mission Shakti, Mission Shakti and OMM convergence; Financial management plan for WSHG enterprises; Collective vision building for Millet based Enterprises; Business development plan for millet based WSHG enterprises (value addition); Financial management plan for WSHG enterprises (value addition) and Millets Recipe training.

The trainings were conducted using various participatory methods with high levels of gender sensitivity and includes exposure visits to various ongoing enterprises. Another key feature of the program is 'participatory machine development' where the comfort of women in handling the existing machines was analysed and the modifications required were identified.



## WATER MANAGEMENT IN RAINFED AREAS - OUTSCALING AUSTRALIAN SUPPORTED R4D IN ODISHA, KARNATAKA AND ANDHRA PRADESH

This program taken up in collaboration with the Commonwealth Scientific and Industrial Research Organization (CSIRO); Western Sydney University (WSU); South Australian Research and Development Institute (SARDI); Watershed Support Services and Activities Network (WASSAN), National Rain-fed Areas Authority (NRAA), Government of India's Ministry of Agriculture and Revitalization of Rainfed Agriculture Network (RRAN). The project is funded by the Australian Water Partnership (AWP), the Australian Centre for International Agriculture Research (ACIAR) and CSIRO. The program was taken up in Odisha, Andhra Pradesh and Karnataka.

The Learning Water Resource Management (LWRM) project is an initiative aimed at improving water management in rainfed areas of Odisha, Karnataka, and Andhra Pradesh, India. It's a collaborative effort involving Australian and Indian organisations, funded by Australian agencies. The project focuses on training water professionals in various aspects of water resource management – including climate analysis, Strategic Irrigation using Virtual Irrigation Academy (VIA tools), relationship between soil microbiology and water management and primarily targeting application of knowledge from global research to local contexts. Over 56 water professionals from CSOs and Government working in various water resources related projects were trained on the above tools. It has an expected outreach of 6000 farmers.



# INSTITUTION STRENGTHENING

WASSAN is a part of the Building Institutions and Networks (BUILD) initiative of the Ford Foundation helping us to become stronger and more resilient over time. In continuation of the earlier efforts, several areas of institutional strengthening of WASSAN have been initiated. Social Synergy Foundation helped reviewing various internal policies and processes related to finance and human resources.

As building internal capacities of WASSAN in working with communities' own institutions – the tribal community organisations/ Pastoral communities/ Gram Panchayats is one of the focal area in BUILD program action plan. This has been initiated in several locations. In Araku valley of Andhra Pradesh, a detailed Gram Panchayat Plans were prepared in participation with the Ward members and community using Google Earth maps. The process of generating these plans using digital tools was standardised. It also attempted a way of capturing the size of the agriculture economy of the Gram Panchayat from the resource inventory.

Work with pastoral communities in Telangana has deepened. The Poda Toorpu Cattle is now recognised as Telangana's first recognised cattle breed. This was achieved by strengthening the pastoral communities and building scientific documentation on animal breed characteristics.

BUILD program also supported in enhancing the IT / digital capacities of WASSAN. The team now have developed tools for mapping villages using drones and also taken a stab at machine learning to automate some processes. Institutional governance systems and processes were streamlined as much of the internal information systems were developed into a comprehensive IT system called CLAP.

Such institutional strengthening supported by the BUILD grant made WASSAN manage its growth.

### CORPUS FUND FROM AZIM PREMJI FOUNDATION

The robust, transparent and decentralised institutional systems and processes; the ardent pursuance of the agenda of rainfed agriculture through teamwork motivated the Azim Premji Foundation to extend a Corpus Grant of Rs. 100 crores to WASSAN. This is a significant contribution from the APF to ensure longer term sustainability of the organization in pursuing its mission. With lessened burden on fund raising, the senior leadership of the organization can devote a great amount of their time on the programs benefitting communities. The interest accrual from the Corpus will be used to meet the human resources and program costs of the organization.



# COLLABORATIONS AND PARTNERSHIPS

WASSAN works with over 200 civil society organisations in various modes of partnership / collaboration across the country. The RRA Network and NCNF have a much larger engagement with multiple stakeholders. The following are the various collaborations/ partnerships of WASSAN.

## 1. Research and Technical Partnerships:

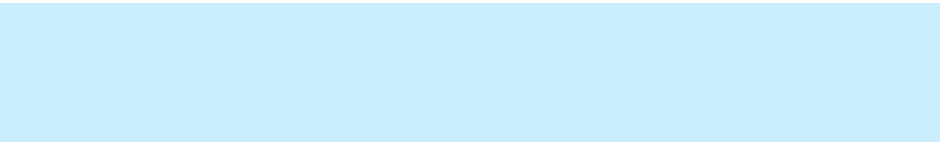
- a. ICAR-Central Research Institute for Dryland Agriculture
- b. ICAR- Central Institute of Agriculture Engineering
- c. MANAGE
- d. CSIRO (Commonwealth Scientific and Industrial Research Organisation)
- e. WSU (Western Sydney University)
- f. SARDI (South Australian Research and Development Institute)
- g. University of Greenwich (UK)
- h. University of Cambridge (UK)
- i. CEEW (Council on Energy, Environment, and Water)
- j. TERI (The Energy and Resources Institute)
- k. National Rainfed Areas Authority, Ministry of Agriculture, Govt of India
- l. Department of Animal Husbandry and Veterinary services, Govt of India

**2. Government and Program partnerships**

- a. Department of Agriculture and Farmers Empowerment, Odisha
- b. ST&SC Development Department, Govt of Odisha
- c. Department of Agriculture, AP Community Natural Farming Program, Rythu Sadhikara Samstha
- d. Food and Land Use Coalition (FOLU) India
- e. Rainforest Alliance

**3. Donor organisations:**

- a. Azim Premji Foundation (APF)
- b. Ford Foundation – India
- c. HDFC-Parivarthan CSR Program
- d. Coromandel Foundation
- e. Government of Andhra Pradesh (GoAP)
- f. Department of WDCW, Government of Telanganaa
- g. Bharat Rural Livelihoods Foundation (BRLF)
- h. Brot fur die Welt-Germany
- i. Welt Hunger Hlife India (WHH)
- j. Detroit Telugu Literacy Club (DTLC)
- k. World Resources Institute (WRI)
- l. Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ)



# FINANCIAL STATEMENTSS



**MAHESH, VIRENDER & SRIRAM**

Chartered Accountants

6-3-788/36&37A, Ameerpet, Hyderabad - 500 016.

Tel: 040 – 23401738, 23401739 Email :mvshyd@yahoo.com


**AUDITORS REPORT**

We have audited the accounts of **WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK**, a registered Trust having its office at Plot No.685 & 686, Road No.12, Narasimha Swamy Colony, Nagole, Hyderabad – 500 068 for year ended 31.03.2023. These financial statements are the responsibility of the Management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our Audit provides a reasonable basis for our opinion.

- a. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of audit.
- b. The Balance Sheet and Income and Expenditure Account dealt with by the report are in agreement with the Books of account.
- c. In our opinion and to the best of our information and according to the explanations given to us, the statements together with the schedules attached thereto and read with the Accounting Policies and Notes thereon give:
  - i. In case of the Balance Sheet of the State of affairs of the Trust as at 31<sup>st</sup> March, 2023.  
and
  - ii. In case of the Income and Expenditure Account the Excess of Income over Expenditure for the year ended on that date.

for Mahesh, Virender & Sriram  
Chartered Accountants  
Firm Reg. No.001939S

  
(B.R. Mahesh)

Partner

M.No.18628

UDIN No.23018628BGXADK1284

Place : Hyderabad

Date : 26.09.2023



Watershed Support Services And Activities Network (WASSAN)			
Plot No. 685 & 686, Road.no.12, Narasimha Swamy Colony, Nagole, Hyderabad 500 068 - Telangana			
CONSOLIDATED			
BALANCE SHEET AS ON 31-03-2023			
PARTICULARS	Annex	2022-2023	2021-2022
CORPUS FUND	1	1,00,00,05,008	5,008
GENERAL RESERVE	2	5,69,32,177	4,45,80,505
RESTRICTED FUND	3	15,30,43,468	17,64,77,299
<b>SOURCES OF FUNDS</b>		<b>1,20,99,80,653</b>	<b>22,10,62,812</b>
FIXED ASSETS	4	2,37,18,355	2,49,07,324
CURRENT ASSETS	5	1,18,62,62,298	19,61,55,487
<b>APPLICATION OF FUNDS</b>		<b>1,20,99,80,653</b>	<b>22,10,62,812</b>

Vide our report of even date  
for Mahesh Virender & Sriram  
Chartered Accountants(Reg.No 001939S)

for Watershed Support Services and Activities Network(WASSAN)

(B.R.Mahesh)  
Partner  
(M. No. 18628)  
Place: Hyderabad  
Date: 26.09.2023

(A.Ravindra Babu)  
Executive Secretary

(Jagadananda)  
Chairperson

UDIN: 2301862886XADK1284





■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)

**Watershed Support Services And Activities Network (WASSAN)**  
Plot No. 685 & 686, Road.no.12, Narasimha Swamy Colony, Nagole, Hyderabad 500 068 - Telangana  
Consolidated Depreciation statement for the year ending 31.03.2023

Annex - 4

SI No	Name of the Asset	Rate	WDV as on 01.04.2022	Additions Before sep/aftersep	Deletion	Total	Depreciation	WDV as on 31.03.2023
<b>Foreign Contribution</b>								
1	Furniture	10%	1,97,873	-	-	1,97,873	19,787	1,78,085
2	Office Equipment	10%	83,392	-	-	83,392	8,339	75,053
3	Land at Hyd	0%	13,97,500	-	-	13,97,500	-	13,97,500
4	15.6KW Solar Compact System	40%	3,80,961	-	-	3,80,961	1,52,384	2,28,577
5	Office Building Nagole Hyd	5%	10,68,576	-	-	10,68,576	53,429	10,15,147
	<b>Total FC</b>		<b>31,28,302</b>	-	-	<b>31,28,302</b>	<b>2,33,940</b>	<b>28,94,362</b>
<b>LOCAL Contribution</b>								
1	Furniture & Fixtures	10%	1,06,697	-	-	1,06,697	10,670	96,027
2	Office Equipment	10%	53,088	-	-	53,088	5,309	47,780
3	Land at Parigi	0%	14,29,242	-	-	14,29,242	-	14,29,242
4	Land at Hyd	0%	14,87,252	-	-	14,87,252	-	14,87,252
5	Building at Parigi	5%	13,38,533	-	-	13,38,533	66,927	12,71,606
6	UPS	10%	78,284	-	-	78,284	7,828	70,456
7	Building a/c - Nagole	5%	1,72,85,927	-	-	1,72,85,927	8,64,296	1,64,21,631
	<b>Total LC</b>		<b>2,17,79,024</b>	-	-	<b>2,17,79,024</b>	<b>9,55,030</b>	<b>2,08,23,994</b>
	<b>Grand Total</b>		<b>2,49,07,325</b>	-	-	<b>2,49,07,325</b>	<b>11,88,970</b>	<b>2,37,18,355</b>



■ WATERSHED SUPPORT SERVICES AND ACTIVITIES NETWORK (WASSAN)


Watershed Support Services And Activities Network (WASSAN)			
Plot No. 685 & 686, Road.no.12, Narasimha Swamy Colony, Nagole, Hyderabad 500 068 - Telangana			
CONSOLIDATED			
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31.03.2023			
PARTICULARS	Annex	2022-23	2021-22
		Amount Rs	Amount Rs
<b>INCOME:</b>			
Grant income during the year		1,35,31,476	29,69,216
<b>Other Income:</b>			
Bank Interest - FC		23,09,069	8,63,348
Bank Interest - NFC		31,93,324	9,90,336
<b>Total Income</b>		<b>1,90,33,869</b>	<b>48,22,900</b>
<b>EXPENDITURE:</b>			
General and Admin exp - FC		13,98,497	4,16,587
General and Admin exp - NFC		40,94,731	15,45,470
Project Expenses Charged		-	20,71,478
Depreciation		11,88,970	13,48,153
<b>Total Expenditure</b>		<b>66,82,197</b>	<b>53,81,688</b>
Excess of Income over Expenditure for the year (Transfer to Balance Sheet)		1,23,51,672	(5,58,788)

Vide our report of even date

for Mahesh Virender & Sriram

Chartered Accountants(Reg.No 001939 S)

for Watershed Support Services and Activities Network(WASSAN)



(B.R.Mahesh)

Partner

(M. No. 18628)

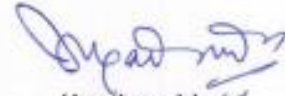
Place: Hyderabad

Date: 26.09.2023



(A.Ravindra Babu)

Executive Secretary



(Jagadananda)

Chairperson





# ANNUAL REPORT 2022-23

