



Aranya
AGRICULTURAL ALTERNATIVES
Permaculture India - Forest Farming

ANNUAL REPORT 2023-2024

Aranya Agricultural Alternatives

CONTENTS

Restore Promise of Water (RPOW).....	2
Biochar Application in Crop Fields.....	4
Permaculture Education.....	6
Permafund- Community Seed Bank Project	9
Andhra Pradesh Irrigation and Livelihoods Project (<i>APILIP II</i>)- Guntur-Andhrapradesh.....	10
National Permaculture Convergence (NPC)	12
Beejvan Project.....	13
Farmer Producers Organization Support.....	14
Farmers Support Program.....	16
Farmers Exposure visits.....	18

RESTORE PROMISE OF WATER

In 2023–24, Aranya Agricultural Alternatives implemented the CSR project *Restore Promise of Water (RPOW)* in Sangareddy district, in collaboration with IIT for IIT, with three CSR partners Jalashakthi Asian Paints, Patancheru, Samhitha CGF-S&P Global, and NBAW (VB). The project focused on desilting water bodies, silt application, renewable energy solutions, digital financial literacy, and social protection schemes, benefitting over 600 farmers directly.

As an implementation partner under the RPOW project, Aranya facilitated silt removal from 14 water bodies across 11 Gram Panchayats in 6 Mandals. A total of 152,283 cubic meters of silt was removed, enriching 347 acres of farmland and directly supporting 208 farmers. Farmers reported improved soil fertility, higher germination (50%–90%), and shifts from monocropping (cotton) to diversified crops such as soya, pulses, and millets. The activity also created seasonal livelihoods.

Portable Solar Pumps:

To promote sustainable irrigation, 14 portable solar pumps were distributed in Singeetham, Bodasettipalli, and Eduakulapalli by Samhitha - benefitting 56 farmers cultivating 3-4 acres each. Farmers successfully grew vegetables, pulses, and millets year-round, with some earning Rs.6,000–7,000 per month from surplus sales.

Digital Financial Literacy:

Aranya through Samhitha, also facilitated Digital Financial Literacy programs across 14 villages in 4 mandals of Sangareddy, training 352 members in topics such as income management, digital banking, insurance, government schemes, and fraud protection. A mass awareness program at Jharasangam attracted participants from 18 villages, ensuring widespread outreach. Additionally, 101 farmers were linked to government social protection schemes, including E-Shram, PMJJY, and PMSBY, providing critical safety nets for vulnerable families.



RPOW Project Sangareddy District

RPOW Project Nirmal District



Solar Pump Sets Supply



Digital Financial Literacy and Shramcards awareness



BIOCHAR PROJECT

In the second year, the project expanded to 7 villages within the same mandal. Farmers were provided with 50 kg of charged biochar per acre in exchange for crop residues, reducing their need for chemical fertilizers while continuing to recycle biomass.

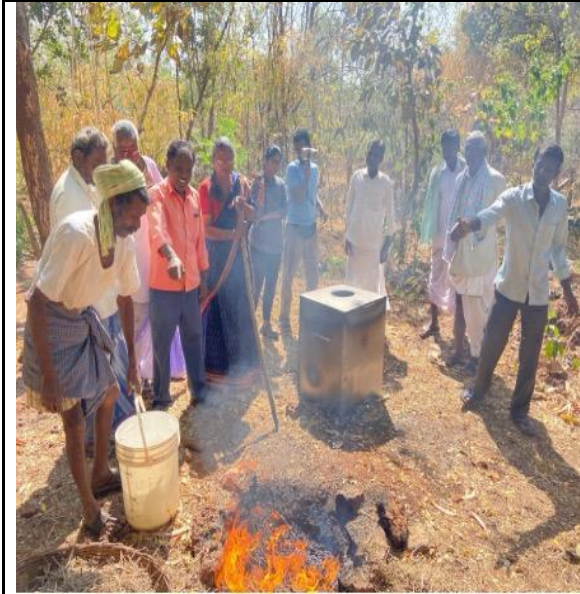
This year, greater emphasis was placed on the application of biochar in agricultural soils. While the recommended quantity is 3–4 tons per acre, the available supply was limited, making it impractical to cover entire fields. Recognizing biochar as a precious resource, demonstrations were conducted to showcase the effectiveness of row application and spot application, which proved to be the most efficient use methods.

Farmers were also encouraged to adopt the pit method for producing biochar on their own farms. This approach is both cost-effective and sustainable, enabling farmers to generate biochar independently without relying on external sources. The initiative not only built awareness about the value of biochar but also equipped farmers with practical solutions for improving soil health and crop productivity.

The program demonstrated that biochar application improves soil health and crop productivity. During a season of excess rainfall, fields treated with biochar yielded up to 13 quintals per acre, confirming its resilience and effectiveness across different crops. Farmers gradually accepted the method, recognizing its benefits over conventional practices.

Overall, the biochar project combined environmental sustainability with economic incentives for farmers. By converting crop residues into nutrient-rich biochar, the project reduced burning, enhanced soil fertility, and increased crop yields across multiple crops and villages. The program not only strengthened awareness about sustainable practices but also created a scalable model for carbon sequestration, soil regeneration, and improved agricultural productivity.





PERMACULTURE EDUCATION

The Permaculture Design Course (PDC) at Aranya is an internationally recognized 13 day program that introduces participants to the ethics, principles, and practices of permaculture. It provides both theoretical knowledge and practical experience in ecological design, regenerative agriculture, and community resilience. The course equips individuals with the skills to design sustainable systems for food, water, energy, shelter, and social structures. Through a combination of classroom sessions, hands-on farm activities, and group design projects, participants learn how to apply permaculture to diverse landscapes and communities.

Permaculture Design Courses

This year, the PDC was attended by a total of 234 participants. Of these, 210 participants were Indian nationals representing 21 states, showing the growing interest in permaculture across the country. In addition, 24 international participants from 12 countries joined the course, adding global perspectives and cultural diversity to the learning environment.

Participation was balanced across genders, with 51.4% male and 48.6% female representation. This gender balance showed the inclusiveness of the program and its ability to attract people from all walks of life. The age distribution was highest in 27–35 age group, highlighting the strong interest among young adults in sustainable practices and community-based solutions. To make the course accessible to those in need, scholarships were awarded to 30 participants, ensuring that financial barriers did not prevent motivated learners from joining.

The special Telugu Permaculture Design Course (PDC) for tribal youth organized by Dhaatri NGO as a part of their Youth Eco feminism course in 2023 was a truly enriching experience, as it was the first program specifically organized for this target group. The participants brought remarkable skills and knowledge, and the course became a vibrant space for cross-learning, where both facilitators and students exchanged ideas and insights. Many students recognized that their existing farming systems aligned closely with the permaculture principles being taught, yet the course provided new techniques and perspectives that could accelerate sustainable practices in their communities.

The impact of the course was tangible and inspiring. Several participants changed their cropping patterns and actively shared the knowledge within their villages, creating visible awareness and encouraging community-level adoption of regenerative practices. The enthusiasm of the students was evident as they returned to Aranya with members of their communities to learn more.





PERMACULTURE TEACHERS TRAINING:

In February 2024, Aranya Agricultural Alternatives conducted a Permaculture Teacher Training attended by 15 participants, all of whom had previously completed a Permaculture Design Certificate (PDC) and were keen to share their knowledge and teach permaculture. The course curriculum covered essential aspects of effective teaching, including understanding adult learning styles, planning lessons and sessions, facilitating participatory learning experiences, using teaching tools, creating safe and inclusive learning spaces, and managing courses at both grassroots and diverse cultural settings. Participants also explored teamwork, course logistics, and strategies for personal and professional development within the field of permaculture education.

The training was facilitated by Narsanna Koppula, Jedidiyah Alfred, and Padma Koppula, who combined practical experience with teaching expertise. By the end of the course, participants gained confidence in facilitating permaculture courses, engaging diverse learners, and applying participatory and experiential teaching methods. The program strengthened their ability to inspire and educate others, fexpanding the network of trained permaculture educators ready to implement and share regenerative practices in their communities.



INTRODUCTION TO PERMACULTURE 2 DAY :

In May 23, we organized a two-day Introduction to Permaculture workshop with a special focus on food forests for beginners. The interactive sessions introduced participants to core permaculture principles and guided them through the process of designing resilient food forest systems. By the end of the workshop, participants had created their own food forest designs, gaining both practical skills and confidence to begin applying permaculture in their own contexts.



PERMAFUND- COMMUNITY SEED BANK PROJECT

As part of our community seed bank project in Nirmal, supported by Permafund Australia, we have provided heirloom seeds to the community last year . These seeds are being cultivated and multiplied to establish a small community seed bank within their hamlets and villages. Access to good quality seeds has become a big challenge, even in tribal areas these days. Many traditional varieties are being lost due to the increasing dominance of commercial hybrid seeds, which often require chemical inputs or do not produce viable seeds for replanting. This situation is threatening threatens local food security and biodiversity, as communities lose access to the diverse, resilient crops that have sustained them for generations. Cimmunity seed banks aims to reduce this trend by providing access to good seed , preserving seeds and promoting sustainable agricultural practices .

11 families were involved and saved 10 vegetable varieties and crop varieties (Paddy, Green gram, Black gram , Cow pea, lab lab) of crops i.e. is 250 kgs. The seeds were distributed in the National Mission Natural Farming villages (NMNF) during the seed mela organized in Nirmal. A total of 225 farmers were given seeds worth Rs.28,000/- apart from those saved for the next crop.



ANDHRA PRADESH IRRIGATION AND LIVELIHOODS PROJECT (*APILIP II*)- GUNTUR-ANDHRAPRADESH

Andhra Pradesh Irrigation and Livelihoods Project (*APILIP II*) is the JICA assisted project that has given the opportunity to ARANYA, SO by WRD, GOAP for Guntur District,

As an SO have provided the services in the promotion and improvement of the livelihood component, as well as to strengthen the functioning of WUAs in the project area. The activities performed during this year are as follows:

Aranya has been working in Participatory Irrigation Management since last two and half decades in major, medium and minor irrigation projects.

II. Participatory Irrigation Management

The team facilitated WUA monthly review meeting in all 16 tanks; the Field officers attended the monthly WUA meeting. Along with WUAs members mobilized farmers to attend the meeting, the points discussed were – finalized micro plans and budget proposed for the repairs. Explained Livelihood plan related to agriculture and relevant processing and value-added products, and fisheries plan of action. Once again oriented of APFMIS Act, Roles and Responsibilities of Management Committees and sub committees. Facilitated the members to have a choice of crops for the coming season, cropping sequence, discussed infrastructure establishment cold storages, processing units and value chain.

This year SO were given additional 7 tanks these tanks are located in Palnadu district covering three mandals Veldurthi, Macherla and Durgi. The projects visited Patlavedu tank, Gangireddypalli tank, Vajaralapadu tank, Gudipadu tank, Nemallagandi Tank. Atmakuru tank and Gandrakota tank

- Conducted District level, Sub Divisional Level Strengthening the Capacities of ADAs, AO, HOs, VAAS, VHAS, MPEOs, on GAP and certification of Dr. YSR of Polam badi and Thota badi Training
- Workshop on Chilli Value chain Development, Akula Ganapavaram, FPO office, Rajupalem, Resource Persons was ADA Horticulture, Participants: 4 FPO BODs of Akulaganapuram, Julakal, Achampet, Korsuru 50 participants attended.
- District level, Sub Divisional Level Strengthening the Capacities of ADAs, AO, HOs, VAAS, VHAS, MPEOs, **on GAP and certification of Dr. YSR of Polam badi and thota badi Training**

- Covered all 16 tanks in Guntur and Palnadu district in planning, implementation, monitoring and evaluation of all community level activities pertaining to PIM, agriculture, horticulture, livelihoods and pilot initiatives under the project.
- Aranya has formed four FPOs capacitated and strengthened the farmers association tank level for active functioning at community level. BODs of Akulaganapuram, Julakal, Achampet, Korsuru.
- Conducted trainings Identifying training needs of communities and assisted DIU in capacity building initiatives under the project. Created awareness to Ayacutdhars the purpose of small groups formation, self-managed independent group of farmers with a shared goal and interest. Large farmers' Federation and mainstreaming in FPO. The size of the farmer interest group in three tier system, mobilisation, formation, strengthening and empowering the groups. Around 504 participants/ farmers attended the trainings.
- Facilitated Small-scale farmers from farmers groups, cooperatives and networks, by which they helped each other not only through marketing advantages, but also through the exchange of knowledge and experiences, and through the increased bargaining power in the purchase of inputs, equipment and better prices for their crops through collective marketing.
- All the Farmers Interest groups aggregate at the village level and formed as Village Farmers Federation the approach with three tiers shall be taken for the formation of FPOs; farmers SHG consisting of 10 -15 farmers in the first tier, Village level Farmers' Federation consisting of 100- 150 farmers in the second tier, and an FPO consisting of 1,000 -1,500 farmers are developed in a phased manner.



NATIONAL PERMACULTURE CONVERGENCE (NPC) 2023

Aranya Agricultural Alternatives successfully hosted the third annual National Permaculture Convergence (NPC) from November 18th to 20th, 2023, in Telangana. The event brought together 350 participants from 21 states across India and 5 countries, including farmers, academicians, policymakers, entrepreneurs, and sustainability enthusiasts. The theme “Future Food & Culture” emphasized designing resilient ecosystems, ensuring future food security, and fostering cultural preservation. NPC 2023 provided a platform to exchange knowledge, review previous learnings, and inspire post-COVID confidence and collaboration within the Permaculture community.

The three-day convergence featured keynote addresses, panel discussions, and parallel sessions. Keynote speakers such as Dr. Vandana Shiva, Mr. Vijay Jardhari, Dr. Sultan Ahmed Ismail, and Padmavathi Koppula shared insights on soil health, seed conservation, food systems, and women’s role in sustainable agriculture. Panel discussions addressed water management, collective action, and ecological resilience. Parallel sessions covered topics ranging from fermentation, social permaculture, biochar, and rainwater harvesting to cultural integration in farming practices. Practical demonstrations, workshops, and knowledge-sharing opportunities enabled participants to gain hands-on experience and actionable insights.

Cultural programs and locally sourced food highlighted the importance of preserving traditional knowledge and promoting sustainable livelihoods. The event’s logistics and operations were supported by over 30 staff members and volunteers, ensuring smooth management and participant engagement. NPC 2023 successfully strengthened networks among diverse stakeholders, promoted innovative approaches for sustainable agriculture, and reinforced the transformative potential of Permaculture in addressing social, environmental, and cultural challenges across India.



Beejvan Project

Beejvan Project, supported by Lush Spring Prize, based in Khanand village, Karjat Taluka, Raigad District, Maharashtra, worked with around 100 tribal households (primarily from the Thakar community) to regenerate land, livelihoods, and community resilience. The initiative focused on indigenous seed conservation, soil and water restoration, and ecological farming. In 2023, Beejvan established a community seed bank, conserved and exchanged over 50 varieties of indigenous seeds, and engaged more than 40 farmers directly in activities such as seed-sharing, training, and farm-based interventions.

Significant progress was made in water and soil conservation, including the creation of farm ponds, percolation tanks, continuous contour trenches, and swales, along with a pilot borewell recharge system. More than 1,500 trees and 4,000 vetiver slips were planted for afforestation and erosion control, while 250 bamboo plants across 10 varieties were introduced for agroforestry. In addition, Beejvan developed basic community infrastructure, including two toilets, a 500m access road, and a community nursery for 2,000 saplings, strengthening village self-reliance.

Through farmer trainings, student exposure visits, and the involvement of national and international volunteers, Beejvan has built awareness of permaculture, watershed management, and natural farming practices. These efforts have enhanced soil fertility, groundwater recharge, and biodiversity, while improving livelihoods and cultural revival.



FARMERS PRODUCER ORGANIZATIONS SUPPORT (FPOs)

In January 2023, the District Collector of Sangareddy visited Bidakanne village and the Aranya Permaculture Farm to engage with women farmers and members of the Farmer Producer Organization (FPO). The visit highlighted the inspiring work of Bidakanne Women Farmers Procures Company Ltd (BWFPCL), which currently has 473 active members.

A significant number of these women farmers are practicing natural farming based on permaculture principles, cultivating food ecologically and sustainably. What makes their efforts even more remarkable is the traditional processing methods they use to retain the authenticity and nutritional value of the produce.

This wholesome, naturally grown food is now reaching around 450 families across Telangana, fostering a deeper connection between ecological farming and community well-being. A beautiful example of grassroots sustainability, women-led entrepreneurship, and local food systems thriving together.



Hon'ble Irrigation Minister Visits Bidakanne Village to Hear Women Farmers' Concerns

Hon'ble Irrigation Minister of Telangana, Sri Harish Rao, visited Bidakanne village and interacted with the dedicated women farmers who are transforming their community through ecological agriculture.

During the visit, the women farmers submitted a formal representation to the Minister regarding government-allotted lands that are yet to be issued passbooks and are not reflected on the Dharani portal. These lands, though classified as dry lands, have been remarkably developed into food forests with 20 varieties of fruit trees and moringa plantations, thanks to the support from Aranya Permaculture.

Despite their efforts, the farmers highlighted the lack of irrigation facilities, which forces them to carry water manually in head loads to sustain the plantations. Their resilience and commitment to ecological farming stand as a testament to grassroots innovation and community-led sustainability.

Following his visit to Bidakanne village, Hon'ble Irrigation Minister of Telangana, Sri Harish Rao, fulfilled the commitments made to the women farmers with remarkable speed and sincerity.

Patta Books Issued: As promised, 215 farmers received their patta books, and the land records are now officially reflected on the Dharani portal, ensuring rightful ownership and transparency.

Rythu Bandhu Payments Initiated: With land records updated, the Government of Telangana has begun disbursing Rythu Bandhu payments, providing crucial financial support to the farmers.

Irrigation Support Secured: The Minister sanctioned 52 borewells for 152 acres through the SC Corporation. Out of these, 48 borewells have been successfully executed, and each one has yielded water, transforming dry lands into thriving food forests.

The women farmers, who had earlier carried water on head loads to sustain their plantations, now celebrate this milestone with immense joy and gratitude. Their heartfelt appreciation was conveyed directly to the Hon'ble Minister during his follow-up visit.



FARMERS SUPPORT PROGRAM:

Aranya supported vulnerable single women farmers in Bidakanne village through timely interventions. Begari Manemma (55 yrs after losing her son, she was left caring for two grandchildren without proper housing. The local women's group approached Aranya for support. The community came together to provide mud flooring, while Aranya contributed by constructing a tin roof for her home.



International Women's Day Celebrations at Jharasangam:

Every year Aranya organizes International Women's Day celebrations, all women from Jharasangam, Zahirabad and Raikode mandals were gathered discussed about women issues discussed.

The year theme is DigitALL: Innovation and technology for gender equality. Earlier to that how many of women is having bank accounts on their names. Most of the women said they have bank accounts. Out of which smartphones 12% women are using phone pay or google pay. All women bank account linked to the husband or son smart mobile.

Women were trained how is use smart phones using google and phone pay. Now owmn has acess to bank loans, you can spend yourselves. Always not for the family. Women are accessing loans spending for their husbands or sons to buy the two wheelers, these installments are being paid by women Rest 50% men are supporting in the family.



Farmers Exposure Visit to Aranya Farm:

Dry land Farmers and Sustainable farming enthusiasts from Institute for Cultural and Research Action ICRA , NGO from Bangalore had visited Aranya Permaculture farm for an exposure visit. The farmers were happy to learn about various permaculture techniques and see them practically implemented .

