

# Tamil Nadu Water Week 2024

Water for Peace: Unite around water

*Proceedings*



**DHAN Foundation**  
Madurai

Date:  
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# Tamil Nadu Water Week 2024

## Water for Peace: Unite around Water

### Water in Tamil Nadu: Sources and Challenges

There are 17 river basins in Tamil Nadu. Cauvery is the only major basin. Of the others, 13 basins are medium and 3 are minor river basins. At 75 percent dependability, the annual surface water generated in the State is 692.78 TMC (19,619 MCM). The State depends on neighbouring States for considerable quantum of flows. Tamil Nadu constitutes 4 percent of India's land area and is inhabited by 6 percent of India's population, but has only 2.5 percent of India's water resources. More than 95 percent of the surface water and 80 percent of the ground water have already been put into use. Major uses of water include human/animal consumption, irrigation and industrial use.

The demand for water in Tamil Nadu is increasing at a fast rate both due to increasing population and also due to larger per capita needs triggered by economic growth. The per capita availability of water resources however, is just 900 cubic meters when compared to the national average of 2,200 cubic meters. Agriculture is the largest consumer of water in the State using 75 percent of the State's water resources.

The State is heavily dependent on monsoon rains. The annual average rainfall is around 930 mm (47 percent during the north east monsoon, 35 percent during the south west monsoon, 14 percent in the summer and 4 percent in the winter). which is about 261.70 TMC (7411 MCM) annually. *(Reference: EIACP PC-HuB: Tamil Nadu, State of Environment and Related issues)*

## Challenges faced by the state

1. Lack of integrated approach on water management for using surface and ground water judiciously
2. Degradation and/or reduction of cultivable lands
3. Lack of strategies towards sustainable management and maintenance of water bodies.
4. Limited cost effective technologies to treat or reuse waste water generated at households
5. Rapid urbanisation
6. Limited encouragement for water saving technologies
7. Lack of effective management and governance on water sector

## Tamil Nadu Water Week: Genesis and Editions

In 2013, the Tamil Nadu Water Week was initiated with the goal of discussing the state of water resources in Tamil Nadu and creating a framework for managing water demand sustainably. The fourth edition and the theme of the event converged with the world water day theme of the year i.e Water for Peace. The themes of the previous editions were Water and food security (2013), Water management for sustainable development (2014), Accelerating change to solve the water and sanitation crisis (2023).

The purpose of the event is to provide a platform for development practitioners, academic institutions, CSR partners, and government institutions to showcase and exchange their incredible works in conservation of water commons and water demand management. The Tamil Nadu Water Week 2024 has hosted fifteen events including conventions, workshops, seminars, technical sessions, competitions at schools/colleges with a range of participants from academic institutions, CSR, development practitioners, community federations, government departments, etc

Five themes are taken for deliberations as listed below. At the end of the event, declarations were released along with policy recommendations to the government.

## **Theme 1: Water Commons and Community Collective**

### ***Sub theme 1.1 - Social capital for sustainable development***

Sustainable development of water commons for generations is possible only when a strong social capital is built around it. The Community collective constituted with vibrant social capital fosters sustainable development of water commons irrespective of the contexts. The nested institutions like Vayalagam promoted at different levels accelerates the change process at higher order aiming at constructive governance towards water commons.

### ***Sub theme 1.2 - New social order on water governance***

In the present scenario, the demand for water is escalating; the availability is diminishing on the other hand. In order to address this adverse proposition, investment on behavioural change towards conservation and preservation of water is highly necessary. Reviving the traditional wisdom in safeguarding water commons as well as inducting the community across different live stages towards conserving water requires equal attention. A set of new social order is to be evolved and disseminated for a larger shift towards constructive water use.

## **Theme 2: Water for Peace**

### ***Sub theme 2.1- Advancing partnership for water***

Partnership with a shared vision brings prosperity. Community-lead water conservation models ever invite multiple stakeholders to exchange their resources and expertise for a larger outcome. The partnership paves way for co-creation and co-learning and generates new dimensions to the mission. An organic interface between the nested institutions and partner institutions maximizes the investments towards water commons keeping the equality and equity as core elements in bringing peace at large.

### ***Sub theme 2.2- Women and Water Commons***

Women and water are highly indispensable in our cultural system. In drought zone, Women's life may be more peaceful if they are not compelled to carry water over long distances. The women who are in nested institutions

like Kalanjiam federations are capable of leading the water conservation works to address water scarcity. The women SHGs which are graduated into civic phase have a greater scope and responsibility in adopting community-lead water conservation works with the guidance of Vayalagam water collective.

### ***Sub theme 2.3 - Prevention and Eviction of Encroachment***

Encroachment is one of the detrimental elements which make water commons extinct at a faster rate. Eviction of encroachment requires intensive persuasive process to attain the desirable change. Though it is a time consuming process with greater possibilities of friction and conflicts, the outcome brings peace to the community forever. It enlarges the availability of water not only for the landed one, but also for landless, flora and fauna in the ecosystem.

## **Theme 3: Water and Agriculture**

### ***3.1 Productivity enhancement: Technological solutions***

Crop productivity in tank-fed agriculture depends on multiple factors including number of filling, water adequacy during critical stages and appropriate package of practices. Indeed, the community possess huge range of technologies in productivity enhancement which are inherited for generations. The technologies like tank silt application witnesses it. Strong convergence between tank-fed farmers and agriculture research institutions in highly required to learn and adopt no and low cost technologies for productivity enhancement

### ***3.2 Water security for agriculture: Approaches and outcomes***

While the quantum of rainfall as well as the number of rainy days has uncertainty, it is highly imperative to harvest the water for agriculture. The initiatives like farm ponds have witnessed water security in tank-fed and rain-fed agriculture in critical hours. The farm ponds serve as supplementary sources and assures successful harvesting of single crop by small and marginal farmers. The farm ponds have gained greater attention by the farmers in drought zone and widely implemented as a loan product.



### **3.3 Social security for farm-based livelihoods**

Shocks and vulnerabilities are highly indispensable in farm-based livelihoods. The life of a small and marginal farmer will be in tragedy unless they get back the investment made in agriculture. The social security packages like crop insurance and livestock insurance gives comfort for the farmers as they could ensure compensation despite severe failure in livelihoods. Strong social capital operates in a large scale has a greater potential to generate wide range of insurance products which could be governed by community themselves. The institution like People Mutuals witnesses it.

## **Theme 4: Water and SAWAS**

### **4.1 Safe drinking water**

Access to safe drinking water is the primary agenda for the community in remote areas. Expenditure towards health is one of the major leakages for the poor wherein the unsafe drinking water plays a greater role. The key initiatives like customized roof water harvesting provides assured water for drinking with safety link. While most of the villages in drought zone depends on surface water sources for drinking like Oorani, ponds, springs, etc, appropriate filter mechanisms are to be advocated at household level like bio-sand filter.

### **4.2 Partnership for hygiene and health**

Organic interface between the community institutions and government initiatives on health security is always necessary to secure hygiene and health for a family in last mile. While health is becoming one of the prominent agenda for the CSR investments, the key interventions shall be jointly designed in a bottom-up approach for an effective outcome. The SUHAM Trust along with its collective institutions across different geographical contexts demonstrates it.

## Theme 5: Water balance and budgeting

### 5.1 Water resource management: Blue, Green, Grey and Virtual

Water literacy is emerged as a prominent agenda to secure for water for generations. Water literacy doesn't stop at knowledge transfer, rather it calls for action like water budgeting t household as well as habitat level. The Centre for Water Literacy (CWL) envisages to encourage different stakeholders for a consistent effort in conserving water for future. It would offer platform for the practitioners and missionaries to exchange their insights on water conservation to the community at large. Indeed, the education about blue, green, grey and virtual water is a lifelong literacy to realign our way of life with the water ecosystem time to time.

### 5.2 Coping-up climate change: Resilience building

Ecosystem based approach is need of the hour towards resilience building. By drawing inspiration from native wisdom of five ecosystems as documented in Tamil literature viz. Kurinji (Mountain Ecosystem), Mullai (Forest ecosystem) Marutham (Several agriculture ecosystems-wet land, dry land and garden lands), Neithal (coastal based ecosystem) and Palai (Desert ecosystem) the coping-up mechanisms are to be evolved. While these ecosystems are often go through uncertainties and disasters, and adverse effects of climate change, there is a need for long term strategies for resilience building and sustaining it.

### Side events:

Besides events at DHAN Foundation, Madurai, side events were held in Vellore Institute of Technology and in TNAU, Nagapattinam to deliberate on the technological solutions for productivity enhancement. Similar to TN water Week, the events like Karnataka water week and Telengana water week were plnnd in June and August 2024 and the policy recommendations of all three events will be taken to the National Water Week scheduled by Ministry of water resources, New Delhi in Sep 2024.

Key segments in Tamil Nadu Water Week from March 18 – 22, 2024

March 18 (Monday)	Engagement with youth in academic institutions including schools and colleges and celebrating World Water Day 2024 through a range of competitions
March 19 (Tuesday)	Consolidating the celebrations by the Vayalagam Movement across Vayalagams, Cascade and Federations at national level
March 20 – 22 (Wednesday, Thursday and Friday)	Technical sessions, conventions, workshops, seminars in DHAN Foundation, Madurai and in TNAU, Nagapattinam and VIT, Vellore

## Chapter - 2

# Global Inauguration

// Date: March 20, 2024 //

The Tamil Nadu Water Week 2024, which commenced with a reverent prayer, set the stage for the dialogue on effective water resource management. Dignitaries, including chief guests, representatives from DHAN Vayalagam Tank Foundation, Panchayat presidents, and community leaders, gathered to address the pressing need for conservation and sustainability in water management practices.

In his poignant welcome address, Mr. V. Venkatesan, CEO of DHAN Vayalagam Tank Foundation, highlighted the invaluable traditional water management methods passed down by our ancestors. He stressed the urgency for the present generation to uphold and enhance these practices, welcoming esteemed guests and emphasizing their pivotal role in the symposium.

Following Mr. Venkatesan's remarks, Mr. Dixit, Advisor, National Water Mission delved into



technical aspects, outlining four critical points for effective water resource management. These included the imperative need for enhanced community participation, adoption of innovative agricultural technologies, and fostering collaborations among various stakeholders for sustainable water management practices.

Addressing the audience, Dr. Madhavi Ganesan, Director, Centre for Water Resources, Anna University, lauded the efforts of the DHAN Foundation in promoting community-driven water management initiatives. She underscored the necessity of revitalizing water associations and urged proactive measures to combat water scarcity, drawing insights from successful water management models in countries like Israel.

Mr. Sourabh Kumar, IFrS, Former Ambassador of India to the UN Offices, emphasized the global significance of water management, highlighting the challenges posed by uneven water distribution and the imperative need for community compliance with governmental initiatives such as Jal Jeevan Mission and Swachh Bharat Mission.

Dr. V.Geetha Lakshmi, Vice Chancellor of Tamil Nadu Agricultural University, stressed the multifaceted benefits of water conservation, emphasizing its pivotal role in economic development, ecosystem preservation, and community welfare. She advocated for the adoption of cost-effective and sustainable farming practices, including drip irrigation systems.

Further insights were provided by Mr. Mohammed Ali Jinnah, Former NABARD Chief General Manager, who underscored the importance of financial prudence in water management projects and urged for policy seminars and grassroots movements to drive change.

Concluding the symposium, Mr. M.P. Vasimalai, Executive Director of DHAN Foundation, outlined actionable plans for urban wastewater management, sustainable water usage, and educational initiatives. A vote of thanks by Mr. J. Mohan, COO, DVTF concluded the inaugural event, marking a step forward in collaborative efforts towards sustainable water management practices.

The global inauguration was concluded at 1:30 PM, leaving attendees inspired and motivated to implement the discussed strategies for a water-secure future.

# Convention on Water for Peace: Advancing collective governance towards sustainable development of water resources

// Date: March 20, 2024 //

The Convention on Water for Peace, focusing on advancing collective governance for sustainable water resources, was held at the DHAN Foundation on March 20, 2024. The event witnessed the participation of key stakeholders, including Vayalagam CEO Mr. V. Venkatesan, esteemed guests, and representatives from various water conservation programs.

Mr. V. Venkatesan extended a warm welcome to all attendees, emphasizing the unity and strength of Vayalagam ayacut farmers. A video presentation showcased the impactful initiatives undertaken in Kadaladi Vayalaga Vattaram in Ramanathapuram district.

Mr. Nagoor Ali Jinnah shed light on significant water conservation missions across different regions, including Kakathiya in Telangana and Sauni in Gujarat. He highlighted the success stories of water-related projects, emphasizing the need for collective efforts in addressing the global water crisis.

Mr. Santanu Basu, Project Director from HCL Foundation discussed the current water situation, stressing the critical groundwater levels in 60% of Indian districts. He underscored HCL's CSR initiatives, including tree plantation and water body renovation projects in collaboration with DHAN Foundation.

Dr. Chelvi Ramesh, Professor, ICAR-KVK, Aruppukottai shared valuable insights on rainfall patterns, water usage, and innovative agricultural practices.



Dr. Madhavi Ganesan elaborated on irrigation schemes, farming techniques, and government initiatives aimed at enhancing water sustainability.

The convention concluded with actionable steps to promote sustainable water management:

- Establish sustainable people's institutions for all tanks.
- Evict encroachments in water bodies with the support of ayacut farmers.
- Conduct Shramdhan at frequent intervals for tank maintenance.
- Raise awareness about use of water for domestic and irrigation purposes in a conservative way.
- Create MOU agreements between Vayalagam and Panchayats.
- Implement modern agricultural techniques and collaborate with government schemes like MGNREGS for Vayalagam sustainability.

The event concluded with a vote of thanks by Mr.Durairaj, President of the Vayalagam Movement, expressing gratitude to all participants and guests for their valuable contributions.

# Seminar on Role of women SHGs in efficient management of water commons – Showcasing the experiences of Kalanjiam women groups

// Date: March 20, 2024 //

A seminar highlighting the pivotal role of women Self-Help Groups (SHGs) in the efficient management of water commons, showcasing the experiences of Kalanjiam women groups, was held at DHAN Foundation on March 20, 2024. Coordinated by K. Rajalakshmi and M. Vidhya, the event witnessed the participation of 45 members, leaders, and staff from various districts.

The seminar commenced with the lighting of the lamp by esteemed guests, community leaders, and staff. Ms. M. Vidhya, Regional Coordinator, delivered the welcome address, followed by insights shared by Ms. A. Natchiyar Ammal, Deputy Director of Agriculture, on the changing trends in water consumption and the importance of efficient water usage. She emphasized the significance of water saving practices, traditional food systems, and the role of mothers in instilling water conservation values in the younger generation.

Ms. Vidhya presented a PowerPoint on the role of women SHGs in water management, highlighting challenges faced by women in water management and their contributions to water conservation efforts. She emphasized women's involvement in renovation activities, community meetings, and decision-making processes related to agriculture water requirements.





Ms. K. Rajalakshmi, Programme Leader, DHAN Foundation outlined the Proposed Theory of Change for women SHGs in water management, focusing on financial services, technical expertise, and social capital. She detailed the achievements of Kalanjiam Foundation in water conservation and outlined the five-year plan for further initiatives.

### **Subsequent group discussions led to actionable insights:**

**Role of SHGs in Mainstreaming Water:** Discussions focused on practical actions like renovating tanks, ooranies, and ponds to optimize water storage, addressing borewell-related community needs, and ensuring regular tank maintenance. Initiatives such as planting tree saplings in tank bunds and constructing rainwater harvesting structures in member households were emphasized, along with promoting water literacy and promoting Vayalagam associations.

**Mobilization of Funds from Panchayat and Local Donors:** Efforts were made to mobilize funds with Panchayat authorities and local donors. Community members can contribute through labor work, demonstrating their commitment. Funds are allocated at the Kalanjiam level to ensure project sustainability. Leveraging government schemes like the 100 days' work program for tank renovation will further facilitate resource allocation.

**Role of Women in Water Conservation:** Women play a pivotal role in conserving water through efficient usage and maintenance of water structures, contributing significantly by recycling water for agriculture and household management. They actively engage in cleaning and maintaining water structures, ensuring cleanliness and proper functioning, and nurturing tree saplings to promote greenery.

**Policy for Water Conservation in Women SHGs:** Water conservation plans are integrated into annual and people planning exercises, focusing on greening initiatives achieved through effective water recycling, emphasizing sustainability within women SHGs.

The seminar concluded with a vote of thanks by Ms. K. Rajalakshmi, acknowledging the valuable insights shared and the commitment towards effective water management by women SHGs.

# Workshop on Mainstreaming Water Policy at Village Panchayat

// Date: 20.03.2024 //

The workshop focused on various dimensions related to water policy at the Village Panchayat level. Discussions centred around the role of Panchayats in water management, the design of water policies, and their operational aspects, with participation from 42 individuals including Village Panchayat Presidents, ward members, Sangamam leaders, and staff.

During the event, Shri. Saurabh Kumar, IFRS (Retd), Former Ambassador of India to the UN Offices, delivered a special address on water policy at the Village Panchayat level. He emphasized the crucial role of Panchayats in designing inclusive water policies that consider the inputs of all families within their jurisdiction.

Key points discussed during the meeting included the importance of Village Panchayats, as the third tier of democratic governance, to take bold steps in formulating water policies that prioritize water as a common resource for all. The workshop highlighted the importance of engaging local institutions and traditional knowledge in crafting these policies, as well as addressing water conservation activities in alignment with climate change factors.

To facilitate the development of water policies, it was suggested to collect relevant data with community consultation. This includes demographic details of the Panchayat, landscape mapping of biodiversity, livestock



population assessments, documentation of existing water resource structures, and analysis of water availability at the Panchayat level.

Several resolutions were proposed in connection to formulation of water policies at the Panchayat level. These resolutions encompassed various areas,

- Policy for Governing Existing Water Resources
- Policy for Creating New Water Sources and Renovation
- Policy for Water Conservation and Management
- Policy for Collection of Community Contribution for Water Services
- Policy for Collaboration with Line Departments for Convergence of Water Conservation Activities among Stakeholders
- Roof Water Harvesting Policy for Individual Houses and Common Buildings of the Panchayat
- Policy for Community Management of Common Water Body Resources
- Policy for Integrating Social Capitals for Effective Water Governance
- Policy for CSR and Mainstream Resources

The way forward involves conducting a series of consultative events at the Panchayat level to finalize the water policy document. This document will then be presented at Gram Sabha events to gather opinions and seek approval from the community members.

# Workshop on Water and Agricultural Productivity Enhancement through Technological Solutions

// Date: 20.03.2024 - Venue: VTT Agri Clinic //

At Vellore Institute of Technology (VIT) on the eve of TNWW 2024, the workshop on productivity enhancement through technological solutions was successfully conducted with active participation of members from DHAN Rainfed Agriculture Development Programme's farmers, VIT contact farmers, VIT students, Water scientists and professors.

Mr.U.Vellaiappan and Mr. N. Venkatesan have facilitated the workshop along with VIT professor and gave lead and technical presentations respectively to the workshop.

Dr.M.Annie Jenifer, Professor has presented that importance of water and its availability from different sources for different usages. She also highlighted that water utilization in different purposes shall be budgeted annually by the village community. Water budgeting could emerge as a pattern and culture in farming community as like expenditure being made by the family against their income annually.

Followed to that Dr.Nisha, Professor has presented about the comparative impact on Drip irrigation based crop productivity and non-drip irrigation based crop productivity through experimental learning in local farmers under PMKSY Scheme. She also emphasized that all possible field with farmers shall be followed micro irrigation techniques.



She also shown different crops (Sugarcane, Banana, Paddy and cotton) yield as part of a trial conducted by using drip system at different farmers' fields.

Dr.Paul Man Singh, Professor expressed that the present challenges in conserving water sources could be handled through different development program offered by the government. The community can be empowered and involved in development projects by engaging themselves in planning and execution along with local governance system.

The post lunch session was mainly focused on group discussion and facilitated by VIT water and Agriculture experts. The Student and farmer community have raised valuable questions related to water and agriculture productivity enhancement and got clarified. The professors of VIT and water scientists have appreciated DHAN works in water sector and expressed willingness for collaborative endeavours with DHAN.

### **The following are the way forward as declarations from the workshop**

1. The forum declared that the importance of water management through micro irrigation system such as drip, sprinkler and Rain gun etc. can be shared to all farmers through the social capital created by the NGOs. The VIT can extend support to the NGOs working in Vellore district.
2. The forum recognized that the creation of farm ponds as one of the suitable technology for drought prone district in TamilNadu based on the experience realized from the Ramnad district.
3. The VIT's Agriculture college and agri clinic has committed to extend its cooperation to have partnership with DHAN Foundation for water and agriculture related discussion and advancement in future.
4. The VIT's student community shall work on Agriculture and livestock development intensively
5. Land based Water harvesting structure shall be facilitated by academic and NGO sectors through Government program.

6. Evaporation and percolation loss study shall be done by VIT like academic institutions while using farm pond as irrigation source to the crops.
7. Integrated Farming system and its knowledge can be disseminated with community for doubling the productivity
8. Preservation of traditional seeds and dissemination of organic agriculture concept for ensuring the sustainable and climate smart agriculture
9. Soil and water quality shall be tested in farm lands and crop choices can be decided based on the soil nutrient and water test.

# Systematic Voters 'Education and Electoral Participation (SVEEP) Programme and Workshop on Technological Solutions for Productivity Enhancement in Coastal Agriculture

// Date: 21.03.2024 - Venue: AC & RI, TNAU, Keezhvelur //

DHAN Foundation collaborated with the Agricultural College and Research Institute (AC&RI), Kurukkaththi, Nagapattinam, to commemorate World Water Day at Keezhvelur. The events aimed to rally various stakeholders involved in water resource management across Tamil Nadu to address the looming challenges of water scarcity and its implications on food production.

Dr. D.Dhamodaran, Ph.D., Professor & Academic Coordinator at AC&RI, delivered the welcome speech, extending a warm welcome to farmers, executive engineers from the Agriculture Engineering department and Tamil Nadu Water Supply And Drainage Board (TWAD), college staff, DHAN colleagues, and students.

During his felicitation, Mr.V.Venkatesan, Chief Executive Officer of DHAN Vayalagam Tank Foundation, highlighted the global importance of water, emphasized efficient water usage practices, and highlighted the community-led initiatives of the Vayalagam nested institutions and their impacts.



Mrs. Ilavarasi, Senior Team Leader-Human Resources Department at DHAN Foundation, enlightened participants during the technical session about traditional water body names, cascades, water supply methods for farming, and the significance of irrigation tanks and water bodies. She also shed light on other DHAN Foundation initiatives like Kalanjiam, Mutual, and Farmer Producer Organization, emphasizing community-led programs. Her session concluded with a song celebrating water and agriculture.

Mr. K. Murugesan, M.Tech, MBA, PhD, Executive Engineer of the Tamil Nadu Water Supply and Drainage Board, discussed water management and the current water source situation in Nagapattinam. He generously sponsored 100 tree saplings to be planted around the college campus.

Mr. Palanisamy, B.E. Agri, Executive Engineer, Agriculture Engineering department, Nagai, shared insights into global water levels, the drawbacks of unlevelled farmland, the benefits of laser leveling, and advocated against excessive water usage in farming. Following these speeches, college students delivered a special address on Water and the Right to Vote.

Concluding the function, Dr. Ravi, PhD, Dean of AC and RI, explained the institute's infrastructure and emphasized collaboration with DHAN Foundation. He encouraged farmers to cultivate millets instead of paddy, stressing their value-added products and marketing strategies. AC&RI are in the process of releasing a saline-tolerant variety of small millets.

The forenoon session ended with a vote of thanks by Dr. A. Anuratha, Ph.D., Associate Professor (Soil Science) at AC&RI, Keezhvelur, Nagapattinam.

After lunch, the college organized a field visit to Pioneer farmers' fields for hands-on experience sharing. Farmers have gained valuable insights from this visit.

### **Declarations and Way forward of this Programme:**

1. Students are encouraged to take social responsibility by learning from farmers and traditional technologies, enriching their education while contributing to sustainability and cultural preservation.



2. Collaboration among academic institutions, NGOs, government departments, and farmers is crucial for developing technological solutions to enhance productivity in coastal agriculture.
3. By adopting technologies like laser leveling and improving saline water quality, supported by government services, farmers can optimize resource use and mitigate challenges in coastal agriculture.
4. Recognizing the significance of voting as a civic duty, making voting compulsory encourages citizen engagement in decision-making processes.
5. Integrating native wisdom with current agricultural technology is essential for sustainable farming practices, promoting resilience, innovation, and economic development in rural communities.

# Technical Session on localizing water balance towards sustainable development: Decoding Blue, Green, Grey and Virtual Water

// Date:21.03.2024 //

Mr. Elamuhil, Team Leader at Centre for Urban Water Resources (CURE), opened the session with introductory remarks, acknowledging World Forest Day and drawing parallels between Tamil culture and forests from Sangam Literature. He highlighted a study by Dr. T.V. Ramachandra on the correlation between food diversity in Indian culture and deforestation in the Western Ghats, impacting the flow of the river Cauvery. Mr. Elamuhil distributed a work sheet to farmers, prompting them to track water data for their villages over the past 30 years, emphasizing the necessity of water metrics.

In his keynote address, Dr. D. Suresh Kumar, Director of CARDS at Tamil Nadu Agricultural University (TNAU) addressed about the role of water budgeting in maximizing water use efficiency at the local level. He outlined major water sector challenges, including severe water scarcity, droughts, declining groundwater levels, reduced tank storage capacity, and increasing conflicts among water user groups. Mr. Kumar simplified water budgeting through case studies relevant to farmers, illustrating its importance in resolving conflicts and aiding crop selection based on agro-climatic conditions.

Following Mr. Kumar's presentation, Mr. Praveen Kumar from TDA decoded localizing blue water estimation, stressing the importance of testing drinking and irrigation water regularly for human and crop health.

Mr. Lokesh, Coordinator at CURE Vizag, presented on localizing grey water, emphasizing its value and introducing various household-level soak pit models and village-level management systems. He highlighted the importance of training Panchayat presidents for effective implementation.



Ms. Swetha, Project Executive, discussed green water conservation techniques such as mulching and drip irrigation, urging farmers to focus on both soil moisture and soil conservation.

Ms. Arsh, Project Executive, explained virtual water through examples like cotton shirts, demonstrating how participants could calculate virtual water for selected food items, enhancing their understanding of virtual water's impact on food choices.

Mr. Elamuhil later discussed industrialization's impact on rivers like the Mercy and Thames in the UK, drawing parallels with pollution in the river Noyyal and the virtual water economy. He emphasized the need for action to combat climate change's effects namely on annual rainy days, rainfall intensity, erratic rainfall and rise in temperature on water resources.

Following a comprehensive session aimed at localizing water balance for sustainable development, the participants collectively proposed the following declarations:

1. **Block-Level Water Budgeting Pilot:** We advocate for the initiation of a block-level pilot program on water budgeting like financial budget planning facilitated by the Water Knowledge Centre, hosted by the people Institutions.
2. **Establishment of Water Recording Stations:** We call for the installation of water recording stations, including rain gauges, at each Panchayat. These stations will be maintained by the association to ensure accurate and continuous monitoring of water resources.
3. **Irrigation Tank Survey Initiative:** We emphasize the need to survey irrigation tanks to determine their actual capacity for restoring the tanks assessing the impact and potential for further scaling.
4. **Compilation of Best Practices:** We propose the creation of a compendium showcasing best practices focusing on the effective utilization of blue, green, and grey water resources.
5. **Development of Water Budgeting Toolkit:** We advocate for the development of a simple, scientific, and context-based 'Water Budgeting' toolkit.

Overall, the session provided valuable insights into localizing water balance for sustainable development.

# Workshop on Building Climate Resilience using Roof Water Harvesting for drinking at individual and Institutional Infrastructure

// Date: 21.03.2024 //

The workshop began with a prayer, followed by Mr. N. Saravanan, the event anchor, highlighted insights into the agenda and objectives of the event. He extended a warm welcome to all guests and participants to the workshop. The workshop, organized by SUHAM, aimed to raise awareness about rainwater harvesting practices and adapting to climate change. Climate change affects the availability, accessibility, and quality of Water, Sanitation, and Hygiene (WASH) services, emphasizing the need for action and resilient development strategies to protect water resources.

Chief Guest Mr. P.M. Jose, Senior Programme Manager at Water.org, Chennai, emphasized the current water scarcity issue. He shared insights from a field visit to the Madurai rural region, where the community sought assistance for a battery inverter. Mr. Jose encouraged exploring solar panel options through guidance from Kalanjiam groups. Additionally, he stressed the importance of embracing climate change adaptation and grassroots technological advancements, highlighting strategies such as diversifying water sources, strengthening infrastructure, and promoting conservation.

Chief Guest Mrs. Jeyabharathi, Head Master, Umarup Puzhavar Corporation Higher Secondary School addressed the forum, emphasizing the significance of roof water harvesting in combating environmental pollution, preserving dignity, especially for women, and enhancing hygiene efforts. She advocated for proper excreta disposal and the provision of individual household roof water harvesting structures to ensure access to safe drinking



water. Mrs. Jeyabharathi also highlighted ongoing community education initiatives and the formation of forums to address climate change resilience collectively.

### **Collaboration: Key to move forward**

Mr. B. Saravana Kumar, as the event anchor, presented on Climate Resilience using Roof Water Harvesting for Drinking at Individual and Institutional Infrastructure. He underscored the broad-reaching effects of climate change on water resources, necessitating urgent action to safeguard water availability, quality, and access. Mr. Kumar emphasized the critical role of collaboration among governments, civil society, the private sector, and international agencies in addressing roof water challenges amid climate change.

### **Discussion with Community based on Lead Questions**

A group discussion ensued, focusing on climate-resilient roof water interventions and associated challenges, including product dissemination, community engagement, rainwater governance, and staff roles in ensuring safe water for all. Participants raised concerns regarding space constraints, financial limitations, and awareness gaps within communities. Suggestions emerged, such as repurposing existing water tanks for rainwater harvesting, and participants committed to implementing rainwater harvesting at their households.

### **Action Points**

Community declarations included commitments to implement workshop learnings in the field, construct roof water harvesting structures across DHAN collective regions, install soak pits and solar panels in all households, and establish common bore wells at the village level. The meeting concluded emphasizing the importance of community involvement in monitoring and maintaining safe water sources. Participants were encouraged to conduct water quality testing, share knowledge, recognize contamination signs, and utilize household filtration systems.

A vote of thanks was extended, highlighting the crucial role of water conservation in securing a healthy future for generations to come.

# Seminar on Building climate-resilient agro-ecosystems

// Date: 21.03.2024 //

The seminar commenced with a welcome address by Mr. V. Avadaiyappan, Team Leader, followed by the lighting of lamps by the participants. Mrs. S. Ahila Devi, Chief Executive of People Mutuals, delivered the keynote address. She elaborated on the various risks faced by the farming community and emphasized measures such as risk avoidance, prevention, reduction, mitigation, and transfer to minimize financial losses. Mrs. Ahila Devi stressed the importance of adopting an integrated approach to protect farmers from diverse risks, which vary across urban, rural, coastal, and hilly areas. Sharing best risk management practices among participants was encouraged to benefit farmers across different regions.

The session focused on enhancing agricultural resilience to climate change impacts. It emphasized the interconnected components of agricultural landscapes, including crops, soil, and water resources. Insurance was highlighted as a crucial element in family financial development, with current coverage in India standing at only 4%. Efforts need to be made to ensure comprehensive coverage for all the eligible family members under various insurance programs. Auto-renewal systems for insurance policies were proposed to facilitate continuous coverage, with insurance playing a significant role in lifting families out of poverty.

Mr. N. Venkatesan, Chairperson of People Mutuals, delivered a special address, highlighting the increased risks faced by present and future generations due to climate change, attributed in part to factors such as pollution and rising temperatures. He emphasized the need for innovative and affordable insurance products to safeguard livelihoods. Mr. Ajith Kumar,



Project Executive at People Mutuals, DHAN Foundation, discussed the design and features of heat index-based Livestock insurance products. He detailed the product's application in the dairy sector and emphasized the importance of innovative solutions to protect livelihoods in the face of climate change.

Dr. B. Bhakiyathu Saliha, Professor & Head and Chief Scientist at the Agriculture Research Station, Kovilpatti, presented on "Technology for Climate Risk Management Adaptation Practices." Topics included sustainable farming practices, climate-smart agriculture, soil health and management, and water management. Dr. Saliha underscored the role of technology in mitigating climate risks and outlined practices such as timely cropping and irrigation techniques to reduce vulnerability to climate change.

Group discussions yielded several recommendations, including the selection of suitable crops and varieties, timely weeding, and the adoption of drip irrigation systems. The Uzhavan app was highlighted as a valuable tool, with suggestions for widespread training among farmers. Soil testing and training on organic farming and integrated farming systems were also emphasized. The seminar concluded with a vote of thanks from Mr. Ajith Kumar, expressing gratitude to all participants for their valuable contributions.

# Workshop on Ensuring access to adequate safe water

## by sustainable partnership with Jal Jeevan Mission

// Date:21.03.2024 //

The workshop commenced with Mr. Rafi, Team Leader, DHAN Foundation extending a warm welcome to the participants. In his opening remarks, he highlighted the mission of Jal Jeevan Mission which aims for universal safe drinking water by 2024 to 19.31 crore households through participatory planning, infrastructure development, promotion of Functional Household Tap Connections (FHTCs), and community empowerment. By mid-2020, only 2% of households had received tap connections, equivalent to 3.86 crore households in rural India. Presently, 75% or 14.48 crore households in rural India have access to tap connections, with the goal of achieving 100% coverage by December 2024.

The objectives of the workshop encompass various critical areas aimed at advancing the goals of the Jal Jeevan Mission. Firstly, the workshop aims to facilitate the sharing of best practices implemented by the DHAN Foundation under the Jal Jeevan Mission. This sharing of experiences and successful strategies can serve as valuable insights for other stakeholders involved. Secondly, the workshop endeavours to formulate effective strategies to ensure that all eligible households have access to safe water connections, aligning with the mission's objective of universal rural clean water access. Thirdly, the workshop seeks to enhance participants' understanding of technical issues related to water quality, treatment, operation, and maintenance, essential for maintaining sustainable water infrastructure. Lastly, the workshop aims to address coordination gaps among various departments and agencies involved in water provision through strategic measures, fostering cohesive efforts towards achieving the mission's objectives.





Mr. Rajapandian, CEO of SUHAM Trust, in his keynote address provided insights into Jal Jeevan Mission's endeavours and the various activities undertaken within the scheme. Mr. Bharanitharan, Training Head, Panchayat, Collectorate, Madurai district, offered valuable insights into field-level issues, intervention strategies, daily operations, water conservation techniques, government funding mechanisms, and implementation strategies.

Mr. Malaisamy, President of Kondayampatty Panchayat, Alanganallur Block, shared practical experiences and challenges faced during the installation of tap water connections, along with innovative ideas for smoother implementation.

Mr. Prahalathan, representing DHAN Panchayat Development Foundation (DPDF), shared his experiences with tap water connections, insights into available government funding schemes, and approaches for CSR fund utilization.

In his lead presentation, Mr. Arikumar provided a comprehensive overview of Jal Jeevan Mission programs, detailing mechanisms, achievements, and stakeholder involvement. He shared the strategies for rural communities to ensure tap connections include surveys, village identification, gram sabha participation, and collaboration with health departments and panchayats. To achieve 100% watertap connections by 2024, initiatives such as community literacy, technology adoption, and climate resilience were emphasized.

In his valedictory remarks, Mr. Rajapandian, emphasized the importance of Jal Jeevan Mission's initiatives and proposed collecting funds of Rs 1000/=per household through Panchayat mechanisms for tap water connections. The workshop concluded on a promising note, with participants committed to implementing a range of strategies for ensuring access to adequate safe water in rural areas.

Based on the outcomes and discussions, the following declarations are proposed:

- Ensuring Lasting Access: Commitment to ensuring lasting access to safe water through sustainable partnerships with the Jal Jeevan Mission, aiming to provide Functional Household Tap Connections (FHTCs) to every rural household by 2024.

- **Sharing Best Practices:** Pledge to actively share and implement best practices demonstrated by the DHAN Foundation under the Jal Jeevan Mission, fostering collaboration, and learning among stakeholders along with educational materials featuring case studies.
- **Strategic Formulation:** Resolution to formulate and implement effective strategies to extend safe water connections to all eligible households, ensuring alignment with the mission's objective of universal rural clean water access to Schools, Anganwadi centers, Gram Panchyat buildings, Health centers, wellness centers, and community buildings.
- **Technical Understanding:** Acknowledgment of the importance of enhancing understanding regarding technical aspects of water quality, treatment, operation, and maintenance among stakeholders, to ensure the sustainability of water infrastructure.
- **Coordination and Collaboration:** Recognizing the necessity to address coordination gaps among various departments and agencies involved in water provision, through strategic measures aimed at fostering cohesive efforts.
- **Community Engagement:** Emphasis on active community engagement in decision-making processes related to water management and conservation, promoting awareness at multiple levels, including educational institutions.

# Convention on Advancing community governance in water commons through Vayalagam movement

// Date:22.03.2024 - Venue: DHAN Foundation, Madurai //

The day commenced with the reflections, setting the tone for profound discussions and insights. Participants gathered to share their experiences and learnings from various visits and engagements, fostering a sense of collaboration and mutual understanding.

As the session progressed, the lamp lighting ceremony added a touch of symbolism, representing enlightenment and unity among the attendees. This ritual marked the official beginning of the day's proceedings, infusing the atmosphere with a sense of purpose and collective spirit.

Mr. J. Praveen Kumar took the stage to deliver the welcome address, setting the stage for the day's discussions. His words resonated with the audience, echoing the importance of the gathering and the significance of the topics to be discussed.

Following the welcome address, Mr. V. Venkatesan, the Chief Executive Officer of DHAN Vayalagam Tankfed Agriculture Foundation, took the podium to share his insights. He highlighted the theme for the year 2024 as "Water for Peace," emphasizing the critical role of water in fostering harmony and stability within communities. Mr. V. Venkatesan spoke passionately about the foundation's efforts in renovating 6000 water bodies, underscoring the organization's commitment to addressing water-related challenges. He shed light on the lessons gleaned from a recent field visit to Nagaland, where



he witnessed first hand the effectiveness of community-generated rules and regulations in ensuring water governance. Drawing parallels to these practices, he called for similar initiatives within the Vayalagam institution and federation, stressing the importance of effective rule enforcement for sustainable water management. Additionally, Mr. Venkatesan advocated for the celebration of 100th DVTF location in the coming year, signifying a milestone in the journey towards water security.

Dr. J. Vasanthakumar, a distinguished academic and former Dean of the Faculty of Agriculture at Annamalai University, took the floor to share his insights on water management. With profound wisdom and expertise, Dr. Vasanthakumar emphasized the paramount importance of ensuring water availability for all, both for present needs and future generations. He delved into the challenges of poor community governance and the erosion of trust, underscoring the need for robust regulatory frameworks and governance mechanisms. Dr. Vasanthakumar proposed a multifaceted approach to sustainable water resource management, advocating for traditional rainwater harvesting methods, desalination, and greywater recycling. He stressed the urgency of addressing pollution, encroachments, and habitat loss, highlighting the need for concerted efforts to safeguard our water resources. Furthermore, Dr. Vasanthakumar called for effective policies to ensure water for livelihoods and food security, urging for regulatory reforms and modern industry governance practices.

In conclusion, the day's deliberations underscored the critical importance of collective action in achieving water security and peace. Through insightful discussions and actionable strategies, participants reaffirmed their commitment to sustainable water management, paving the way for a brighter and more water-secure future.

# Seminar on Productivity Enhancement through Agro Advisory – Technological Solutions

// Date: 22.03.2024 //

The seminar commenced with reflections facilitated by the Agro Advisory Centres coordinators. Mr. J. Madhankumar, Project Executive at DHAN Foundation, delivered the welcome address, extending a warm welcome to all participating farmers, as well as esteemed guests including Mr. Saravanamuthu, Asst Engineer, Agri Engineering Department, Natham; Mr. Karthick Raja, Director of TKS Aerospace Pvt Ltd; and Ms. Bhakiyutha Saliha, Chief Scientist at the Agriculture Research Station, Kovilpatti. He also welcomed the Programme Leaders, Federation Coordinators, and all Agro Advisory Centre staff for their presence.

Following the welcome address, the ceremonial lighting of the lamp was conducted by all guests and farmers.

Mr.B.Muthukumarasamy, Programme Leader at DHAN Foundation, set the tone for the seminar by addressing the importance of Agro Advisory Centres in enhancing productivity for farmers. He outlined the objectives of the seminar and elaborated on the services provided by Agro Advisory Centres, emphasizing their role in increasing agricultural productivity through technological tools.

Ms.S.Ahila Devi, Programme Leader at DHAN Foundation, focused on Agro Advisory for climate-resilient agriculture. She discussed the climate risks faced by farmers and shared experiences of Agro Advisory services provided by Resilience Centres, highlighting their role in promoting climate-smart agriculture.



Farmers then shared their experiences with the services offered by Agro Advisory Centres. Mr. Nambirajan from Tirupulani shared his integrated farming practices, facilitated by Agro Advisory Centres, including goat rearing, fish rearing, mushroom cultivation, and farm pond construction.

Ms. Pandimeena, an Agro Advisory Centre Coordinator, shared her success in changing farmers' practices through Agro Advisory services. She cited an example of farmers in Devakottai who shifted from cultivating paddy to cultivating black gram after receiving Agro Advisory Centre's assistance.

Mr. Saravanamuthu, Asst Engineer at the Agriculture Engineering Department, Natham, discussed water management techniques for productivity enhancement, emphasizing the importance of drip irrigation and various water management schemes available.

Ms. Bhakiyutha Saliha, Chief Scientist at the Agriculture Research Station, Kovilpatti, emphasized the importance of irrigation management through digital technology.

A demonstration of drone usage in agriculture was conducted by Mr. Karthick Raja, Director of TKS Aerospace Ltd, Sriviliputhur. He highlighted the advantages of drones in reducing labor and fertilizer costs and increasing productivity.

Finally, Mr. Ajith Kumar, Project Executive at DHAN Foundation, concluded the seminar with the following way forward

- Enhance agricultural practices, by embracing IoT-based irrigation management technologies for efficient water usage and crop management and optimize agricultural processes.
- Expand the number of Agro Advisory Centres services contributing to enhanced productivity and sustainable farming practices.
- Incorporating drones into Custom Hiring Centres of each Farmer Producer Organization (FPO) for aerial monitoring, crop spraying, and data collection, thereby reducing labor costs and increasing efficiency.
- Strengthening farmers' networks through social media platforms to access timely information, share experiences, and collaborate on best practices leading to better-informed decision-making and improved agricultural outcomes.

# Seminar on Productivity Enhancement by Women Farmers – A Gender perspective

// Date: 22.03.2024 //

Mr.N.K.Vasanth Kumar commenced the session by emphasizing the importance of agriculture, particularly women's role in farming. Mrs. Chitra, Assistant Professor at Tamil Nadu Agricultural University, and Mrs.A.Umarani, CEO of the Kalanjiam Community Banking program, were also present. Participants, including staff and leaders from Ramanagara, Mysore, Tumkur, Kerala, Thanjavur, Dindigul, Theni, and Madurai rural regions, attended the seminar.

The issue of water scarcity, attributed to insufficient rainfall and poor water management, was discussed. Furthermore, the conversion of agricultural land into buildings, driven by increasing land values, was highlighted as a significant concern leading to decreasing agricultural land.

The decline in agricultural productivity was attributed to various challenges in marketing agricultural and agri-based products, including value-added ones.

The seminar aimed to explore best agricultural practices, identify challenges faced by women farmers, and discuss solutions. Participants stressed the importance of retaining agricultural land and adopting new technologies to improve agricultural practices.

Dr.S.Chitra, Associate Professor, AC&RI, Madurai shared insights into seed treatment, emphasizing its role in enhancing growing conditions. She highlighted the use of bacteria such as acetobacter and phospho bacteria for seed treatment, particularly beneficial for paddy cultivation. The adverse



effects of inorganic fertilizers and pesticides on health and the environment were discussed, promoting a shift towards organic agriculture.

Several success stories were presented, including Ms Punita's small millet industry and Ms Manonmani's successful implementation of water management techniques. Professor Chitra emphasized the importance of problem-solving skills, mentorship, and branding in agricultural success.

Leaders shared their experiences, with Ms Mangala Gowri from Bannur region discussing their transition to agriculture and the challenges in marketing crops. The importance of green manures and organic farming practices in reducing production costs and increasing income was emphasized.

Challenges faced by women farmers, including marketing difficulties, technological limitations, and the presence of middle men, were acknowledged.

Following the session, participants formulated declarations to enhance agricultural productivity, emphasizing seed treatment, organic farming, and digital marketing. Suggestions included avoiding pesticide use, retaining agricultural land, and providing training for women farmers in machinery operation and digital trading.

Overall, the seminar provided valuable insights and recommendations for empowering women farmers and improving agricultural practices.



# Workshop on Water Security and Agriculture Livelihoods Enhancement

// Date:22.03.2024 //

In a collaborative effort to address water security and promote sustainable agricultural livelihoods, stakeholders convened at the DHAN Foundation Central Office a workshop on “Water Security and Agriculture Livelihood Enhancement”. Distinguished guests, including Dr. B.J. Pandian and Dr. A. Gurusamy, along with representatives from DHAN Foundation and partner organizations, participated in insightful discussions and knowledge-sharing sessions.

The workshop commenced with prayer, followed by the lighting of the lamp ceremony, symbolizing the enlightenment and unity of purpose among participants. Ms. K. Shanthi, Chief Executive Officer of Jeevidam Limited, delivered the welcome address, setting the stage for discussions on the workshop’s objectives and outcomes.

Key presentations were delivered by Mr. M. Palanisamy, Chief Operating Officer of DHAN Foundation, who provided valuable insights into rainfall patterns, water storage statistics, and practical interventions for water security and productivity enhancement in agriculture. Dr. B.J. Pandian, Principal of Kumaraguru Institute of Agriculture, highlighted the historical significance of Tankfed Agriculture in Tamil Nadu and emphasized the importance of crop diversification and sustainable farming practices.



Dr. A. Gurusamy shared his expertise on water management strategies and the implementation of drip irrigation systems, stressing the need for localized knowledge transfer and capacity building initiatives. Experience sharing sessions, led by regional coordinators and stakeholders, provided valuable insights into productivity enhancement initiatives and community-driven conservation efforts.

Sub-group discussions yielded actionable declarations, including the promotion of micro-irrigation systems, preservation of traditional seeds, and the adoption of climate-smart agriculture practices. Ms. K. Shanthi, in her closing remarks, reiterated the importance of sustainability, knowledge dissemination, and community engagement in achieving water security and agricultural livelihood enhancement goals.

The workshop concluded with a renewed commitment from participants to implement the identified strategies and collaborate towards a more water-secure and resilient agricultural sector in Tamil Nadu.

# Global Closing

// Date: 22.03.2024 //

Global Closing Ceremony of Tamil Nadu Water Week commenced at 3:00 pm on Mar 22, 2024 at DHAN Foundation office premises. In his welcome address, Mr N.Venkatesan, Program Leader highlighted the theme for the year 2024, declared as “Water for Peace” by UN. He emphasized the cultural significance of efficient water usage as a traditional practice and underscored the importance of protecting water resources through the renovation of water bodies via the “Kudimaramarathu System,” a practice championed by DHAN Vayalagam Tank Foundation for over three decades. He extended a warm welcome to all the subsidiaries of DHAN Foundation, including Kalanjiam Foundation, Rainfed, CALL, and various people institutions such as Jeevidam and SUHAM.

Dr S.Mohan, Vice Chancellor, Puducherry Technological University (Virtual), in his address stressed the importance of water body maintenance and system practices by communities, emphasizing the notable contribution of women in water management. He stressed the significance of orienting communities towards fish rearing through Vayalagam institutions and advocated for domestic water reutilization practices to combat pollution. Highlighting successful demonstrations of these practices in Virudhunagar district, he called for concerted efforts in water conservation and management.

In her experience sharing, Ms Poomalai leader from the Palamedu Federation emphasized the importance of water literacy from a young age and advocated for the implementation of kitchen gardens for effective nature conservation. She stressed the need for initiating change within community institutions.

Mr Baskaran highlighted the importance of teamwork in promoting and executing initiatives, particularly in encouraging pulses and millet cultivation and practicing effective water management in farming. He emphasized the

need for advocating for water body renovation and strengthening district-level positions.

Mr M.P. Vasimalai, Executive Director, DHAN Foundation called for advocating for movement towards domestic water reutilization and the establishment of open sewage-free societies. He proposed initiatives such as urban farming in tanks and encouraged rainwater harvesting, emphasizing the need for value-based clubs and water courts at the village level.

Mr P Subburaj, Joint Director of Agriculture, shared valuable insights on water utilization for various crops, highlighting specific water requirements for optimal growth. For crops like sugarcane and paddy, substantial amounts of water, approximately 2000 mm and 1750 mm respectively, are necessary. Similarly, gingelly and small millets require 150 mm and 300 mm of water respectively. He emphasized the importance of agricultural practices such as summer ploughing, weed removal, and land leveling to enhance water storage efficiency. He underscored the significance of water conservation by illustrating that even a single drop wasted in a water pipe equates to 6.5 liters lost in an hour. Additionally, he discussed the importance of water agreements with nearby states, citing the example of the Cauvery River. He advocated for the adoption of drip irrigation and sprinkler irrigation over canal irrigation to minimize water evaporation and ensure efficient water use in agriculture production. Furthermore, he emphasized the benefits of soil mulching, silpan sheets, and green sheds for cultivation, which contribute to water conservation and crop health. He also highlighted the importance of using value-added products such as certified seeds, with a seed duration of 9 months for optimal germination, thereby enhancing agricultural productivity and sustainability.

Various declarations were made by esteemed speakers on Water Commons and Community Collective by Mr.S.Sivanandan, Programme Leader, DHAN Foundation, on Water for Peace by Ms.N.ShanthiMaduresan, Chief Executive, DHAN Panchayat Development Foundation on Water and Agriculture by Ms.K.Shanthi, Chief Executive, Jeevidam Limited, on Water and SAWAS by Mr.R.Rajapandian, Chief Executive, SUHAM Trust and Water balance

and budgeting by Ms.S.Ahila Devi, Chief Executive, People Mutuals. These declarations encompassed a wide range of initiatives, including the revival of traditional farming practices, the implementation of water literacy centers, and the promotion of crop insurance and risk-resilient centers.

Mr. U.Vellaiyappan, Senior Team leader, DHAN Foundation extended his gratitude to all the participants, guests, and institutions involved in making the event a success. He specially thanked the Tamil Nadu Election Board and the Madurai district police department, along with VIT College and Nagapattinam Agricultural College, for their support in organising the events for the Tamil Nadu Water Week.



# Declarations

### Theme 1: Water commons and community collective

1. It is resolved that the Vayalagam institutions shall facilitate other thematic federations to promote water collective to enable the larger community for water bodies restoration and environmental protection.
2. It is resolved that, for a more extensive and long-term conservation of water bodies across the country, the traditional water management technique known as “Kudimaramathu” will become more widely used through persistent collaboration between people’s institutions and mainstream organizations, including Corporate Social Responsibility.
3. It is resolved that the Vayalagam institutions shall prioritize promoting water volunteers and community custodians for surface water commons, especially from the youth section, to absorb the inspiring lessons learned by the DHAN Vayalagam Tank Foundation and share them with society at large for holistic ecosystem development.
4. It is resolved that preserving traditional practices shall receive major attention in moving towards a new social order, wherein traditional water management practices like the Neerkatti system, traditional crop varieties, and traditional breeds are to be given primacy everywhere.
5. It is resolved that Vayalagam federations shall expand the social capital in a saturation mode to make their initiatives more pervasive and serve a larger community.
6. It is resolved that a new social order will be established by the exchange of best practices from community-led water conservation programs that are executed at the cascade, watershed, and river basin levels, wherein the community Yatra will take precedence as a crucial tool for collective learning.
7. It is resolved that urban water governance shall be scaled up through an active partnership with multiple stakeholders, including government, CSR, industries, and academia, in safeguarding urban water bodies.

## Theme 2: Water for Peace

1. Addressing the root causes of conflict, we vow to evict encroachments in water bodies with the support of ayacut farmers. By reclaiming these resources, we seek to restore harmony and ensure access for all, fostering peace within communities.
2. Embracing the spirit of cooperation, we commit to conducting annual Shramadhan (Voluntary labour) for tank maintenance. Through collective effort, we will enhance water infrastructure resilience and promote peaceful coexistence.
3. Recognizing water's role in societal stability, we pledge to raise awareness about water usage reduction for domestic and irrigation purposes. By promoting efficient water management, we strive to mitigate conflicts arising from scarcity and inequality.
4. Embracing innovation for peace, we commit to implementing modern agricultural techniques and collaborating with government schemes like MGNREGS. By enhancing agricultural sustainability, we seek to address underlying causes of conflict and promote peace through prosperity.
5. Emphasizing collaboration for peace, we will facilitate MOU agreements between Vayalagam groups and Panchayats. Through formalized cooperation, we aim to enhance water governance and foster peaceful relations within communities.
6. We resolve to implement various methods for ensuring clean drinking water, including rainwater harvesting, construction of check dams for rainwater storage, and utilization of groundwater recharge techniques to safeguard potable water sources.
7. We resolve to undertake initiatives for ensuring sanitation by treating wastewater for non-potable use, constructing soak pits in areas without sewage systems, and establishing household water management systems to promote sanitation practices.
8. Our groups will convene in village councils in accordance with the guidelines of local administration and government departments, advocating for the implementation of necessary water supply maintenance projects and initiating programs to create awareness and implement measures for water conservation at the grassroots level.

### Theme 3: Water and Agriculture

1. We resolve to promote water management through micro and precision irrigation systems, emphasizing community participation and creating deepened awareness for implementation.
2. It is resolved to assess the previous potential of water resources in the working area with the assistance of elder farmers, evaluating the resilience of these resources for today's agricultural context.
3. We commit to implementing Agro Advisory services specifically tailored for water-based agricultural livelihood enhancement, ensuring optimal utilization of available resources.
4. Preservation, multiplication, and marketing of traditional seed varieties will be prioritized to reduce the cost of production, with a focus on ensuring Participatory Varietal Selection (PVS) for all existing crops in the working location.
5. Soil and water quality analysis will be conducted to tailor production plans to suit the specific conditions of the area, ensuring sustainable agricultural practices.
6. We aim to revive the application of Tank silt as a means of increasing soil fertility, moisture retention, and crop productivity, utilizing it as a source for renovating tanks to enhance their water holding capacity.
7. Conservation of soil and water resources will be emphasized through initiatives such as reviving summer plowing, adopting water-saving techniques, and promoting the cultivation of less water-intensive crops.
8. We resolve to encourage Agro forestry, integrated farming, and Crop diversification to improve the microclimatic conditions of the working area, promoting biodiversity and resilience.
9. Evolving water budgeting techniques and their implementation with community participation will be prioritized for market-based crop production planning, ensuring efficient use of resources.
10. It is resolved to encourage the community to adapt Climate Smart Agriculture practices, fostering sustainable agricultural production and income generation in harmony with changing environmental conditions.



## Theme 4: Water and SAWAS

1. Safe drinking water should be ensured through sustained partnership with the Jal Jeevan Mission, which aims to provide household piped connections to every household by 2024.
2. To ensure the availability of clean drinking water for everyone, efforts and strategies must be made to create infrastructure such as schools, sanitation facilities, village councils, healthcare centers, residential complexes, and public buildings.
3. It is essential for everyone to understand the importance of water conservation through education that emphasizes the aspects of water quality, purification, management, and conservation related to technological advancements.
4. Collaboration and collective action are crucial for addressing the interconnected challenges faced by various sectors and organizations involved in water supply initiatives. Recognizing common intermediaries, understanding needs, and coordinating efforts are essential for addressing challenges.
5. Climate change is a global problem. People should be made aware of its effects at the field level and the resilience of the people for safe drinking water should be created through the corresponding programs.
6. Rainwater harvesting systems for drinking water should be established at the family, village, and community level in order to meet the drinking water needs of the people in order to cope with climate change. Realizing the need for the same, training should be provided to all the workers.
7. Common rainwater harvesting structures should be established not only in houses and industries but also in villages and urban areas, especially during times of scarcity. Additionally, people should strive to achieve self-sufficiency in drinking water. Furthermore, emphasizing the importance of community involvement in monitoring and maintaining rainwater is essential.

## Theme 5: Water resource and budgeting

1. We advocate for the initiation of a block-level pilot program on water budgeting like financial budget planning facilitated by the Water Knowledge Centre, hosted by the people Institutions.
2. We call for the installation of water recording stations, including rain gauges, at each Panchayat. These stations will be maintained by the association to ensure accurate and continuous monitoring of water resources.
3. We emphasize the need to survey irrigation tanks to determine their actual capacity for restoring these tanks assessing the impact and potential for further scaling.
4. We propose the creation of a compendium showcasing best practices focusing on the effective utilization of blue, green, and grey water resources.
5. We advocate for the development of a simple, scientific, and context-based ‘Water Budgeting’ toolkit.

# Partnership in Sustainable Development of Water Commons: Milestones of DHAN Foundation

### Genesis of DHAN's Works on Water and Poverty

The hydrological characteristics of the Indian monsoon necessitated the creation of storage facilities to hold the rainwater of the monsoon. With extraordinary engineering, managerial and social skills, an extensive system of rainwater harvesting structures like tanks and ponds had been built and maintained by the people for centuries. Behind these existing indigenous systems of irrigation, there are thousands of years of tradition.

DHAN Foundation initiated an action research project in 1992 for regeneration of farmers' management in the tank irrigation system. Later it took a shape of a scalable 'Vayalagam Tank-fed Agriculture Development Program', which has expanded its approach of working on isolated tanks to tank-based watersheds, reviving chains of tanks in minor river basins to multiply the impact of the renovation and restoration works. In the process, DHAN has also evolved scalable models for community-led conservation and development of traditional water resources, inland fisheries development, creation of drinking water ponds, as well as low cost and household level water treatment methods. In an effort to scale-up the conservation programmes, DHAN Foundation promoted DHAN Vayalagam (Tank) Foundation in 2006.

### Enhancing Access to Water

Through the Vayalagam, Farmers' Organizations, over these years, DHAN has facilitated rehabilitation of around 5000 tanks & Ponds and took up soil and water conservation measures nearly in 100 watersheds, resulting in enhanced water availability. In addition to restoring the physical structures of the irrigation tanks to their originally designed standard, DHAN has

facilitated proper maintenance of the tanks, efficient water management and improved cropping practices to ensure sustainable crop production. In all these rehabilitation works, the farmers have shared one fourth of the cost of rehabilitation by contributing either cash or labour. Rehabilitation of irrigation tanks to their original storage capacity has increased availability of water for more area for cropping. Earlier all these tanks and the command area were facing the problem of water shortage towards the end of the cropping period as tank water was inadequate to provide adequate water for even a single crop. The restoration works are designed in such a way to saturate the cascade, sub basin and basin with appropriate interventions to benefit the community at large.

### **Water Demand Management**

While many discuss on water supply intervention, DHAN has demonstrated water demand management in rural areas. Addressing the growing water demand requires sound knowledge on traditional practices and adaptive skills. Several interventions made by the organization include shift from high to low water requirement crop, improved cropping practices leading to reduced water requirement, on-field water savings measures leading to improved moisture level in the soils etc.

### **Farm ponds for life-saving-irrigation**

While the tanks serve irrigation water needs of the farmers in the entire command area, creation of farm ponds supplement the irrigation needs of each farm, creating space for the farmers to go in for diversified cropping. These ponds act as ‘shock absorber’ to the farmers. DHAN facilitates building farm ponds to store water ranging from 500 to 1000 cubic meters depending on the farm size. Besides irrigation, the farm ponds are used in multiple ways such as fodder production for livestock, raise vegetable crop on its bunds and for fish rearing. So far, DHAN has enabled the small and marginal farmers to establish over 4000 farm ponds.

### **Creating access to drinking water**

In the water-starved regions of southern peninsular India, acute shortage of drinking water is a common phenomenon every year. The ground water

is saline and unfit for drinking and irrigation. Traditionally, surface drinking water ponds (Ooranis) maintained and nurtured over generations by the local communities have been the source of water needs for the millions of people in this region. Each village has two or three ponds, one for drinking, and another for domestic purposes and for animals. Breakdown of community management and poor maintenance have made these water bodies lose their efficacy pushing women to walk 3-5 kilometers every day to fetch water. Harvesting and storing the rainwater is the only way out of this otherwise intractable situation. DHAN has successfully rebuilt drinking water ponds in the drought-prone districts of Tamil Nadu and people have access to drinking water.

### **Building Markets for the Small and Marginal Farmers**

Small and marginal landholders are mostly unorganized, characterized by lack of access to capital, technology and market information. They are often subjected to exploitation by the middlemen with deceptive weights and measures, and unfair prices for their produces. Livelihoods of these smallholder farm families could be made sustainable only when their capacity is enhanced to influence the value chain, in which they enjoy little control. The institution has organized farmers involved in production of various crops into Primary Producer Groups. These groups have been federated into 66 Producer Companies. These Companies facilitate collective purchase and distribution of farm inputs at cheaper price, build requisite skills for improved production and productivity, facilitate farm credit from local banks, help them pool their produces and gain better price for their produces through market linkages. Also, the institution helps farmers to get into value addition of produces, branding and reaching the consumers directly through retail outlets.

### **Sanitation and Hygiene**

Almost 70 percent of households in rural India do not have a toilet. India loses more than 1000 children of less than five years of age to diarrhea every day; 80 percent of deaths are below the age of two. Apart from affecting their self-esteem, defecating in open has serious impacts on their health, hygiene

and sanitation. DHAN's Sustainable Healthcare Advancement Programme work towards enabling poor households to construct toilets, access to household water connection and safe drinking water.

### **Safe Drinking Water through Household Water Treatment**

Next to ensuring access to drinking water, the institution addresses the issues of quality of drinking water, as more than 80 per cent of the diseases among the poor communities are attributed directly or indirectly to unsafe water, for which at least 25-30 percent of family's income is drained towards healthcare expenses. DHAN promotes low-cost household water treatment technology that has proven its efficacy through a significant improvement in the microbial quality of water and reduction in the episodes of diarrheal diseases. Bio-sand filters, adapted from the traditional slow sand filters have been provided to the households.

### **Sustaining Efforts through Peoples institutions**

DHAN never follows 'Delivery Approach'. It always believes in 'Enabling Approach' and 'Institution Building Approach' which lays emphasis on self-help, mutuality, community ownership and control over resources and benefits, thereby the interventions like water resources development are just taken as means and not the ends. The ultimate goal is to build Peoples' Organizations using these inputs as vehicles of change and enabling them to sustain the efforts and results for long time, even beyond generations. These Peoples' Organizations provide platform for nurturing innovations at the grassroots, scale-down technologies and contextualizing those technologies for addressing the issues of poverty. The People institutions work in collaboration with mainstream institutions like Government departments and banks, as it would provide continuity for the works through local resource mobilization, and help them negotiate and claim entitlements meant for them in the long run.

### **Professionalism in Execution**

The institution believes in peoples' capacities, which continues to attract, groom and place highly qualified and socially concerned development workers at the grassroots works. DHAN engages people with engineering,

agriculture, fisheries, management and finance background for implementing the conservation works professionally at field. In an effort to decentralize, DHAN has established regional offices and promoted DHAN Resource Centers to implement context specific development works.

### **Partnerships made it Possible**

DHAN always works in partnership with the state, private philanthropies, corporate institutions under corporate social responsibility, banking and financial institutions, academic and research institutions. It continues to involve new partners, inspired in professional way of working with poor communities and its enabling model of development work.

Chapter - 5

Poster Release



**DHAN Vayalagam**



*Way*





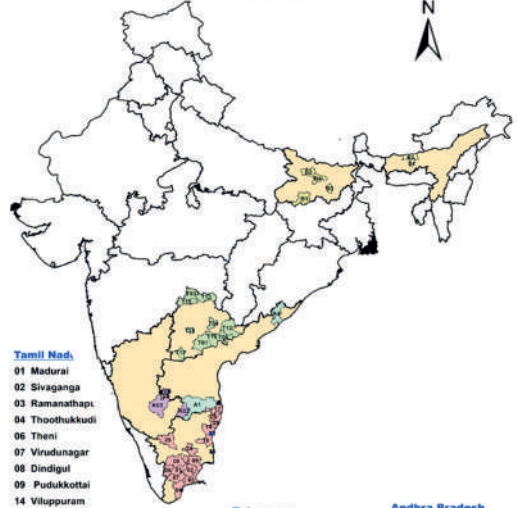
2



## DHAN Vayalagam (Tank) Foundation As on September 2022

Basins covered	17
Tank Vayalagams Associations	6,545
Tank Cascade Associations	452
Members reached	4,17,446
FPOs promoted	45
Water bodies restored	4,197
Amount invested for restoration (Rs.)	217 Crores
Community investment for restoration (Rs.)	39 Crores
Bank linkage (Rs.)	242 Crores

## DVTF Reach 2023



### Tamil Nadu

- 01 Madurai
- 02 Sivaganga
- 03 Ramanathapuram
- 04 Thoothukkudi
- 06 Theni
- 07 Virudhunagar
- 08 Dindigul
- 09 Pudukkottai
- 14 Viluppuram
- 15 Kancheepuram
- 17 Thiruvallur
- 18 Cuddalore
- 24 Tiruchirappalli
- 25 Erode
- 26 Chengalpattu

### Puducherry

- 33 Puducherry
- 34 Karaikal

### Karnataka

- K02 Kolar
- K03 Tumkur

### Telangana

- T01 Nalgonda
- T03 Adilabad
- T04 Warangal
- T08 Khammam
- T10 Medchal Malkajgiri
- T12 Bhadradri Kothagudem
- T13 Asifabad
- T15 Sangareddy
- T16 Suryapet
- T17 Wanaparthy

### Andhra Pradesh

- A1 Chittoor
  - A4 Vizianagaram
- ### Assam
- S1 Nalbari
  - S2 Baksa
- ### Bihar
- B1 Gaya
  - B2 Muzaffarpur
  - B3 Munger
  - B4 Samastipur



3



## Water and Governance

### DHAN Vayalagam Way

- Building nested institutions for conservation of water commons with community investment
- Facilitating equity in water sharing through collective decision making and monitoring
- Partnership with Panchayat system to give priority for conserving the water commons
- Collective visioning to mobilize and manage resources for conserving the water commons as long term mission

Governance Conserves Commons



4



## Water and Wisdom

### DHAN Vayalagam Way

- Valuing the traditional water commons as the symbol of heritage and wisdom
- Rejuvenating the traditional practices like Kudimaramathu and Neerkatti system to instill conservation traits within the cultural practices
- Preserve, restore, and scaling-up of traditional practices and community wisdom
- Building on from traditional risk mitigation practices and contextualizing the native wisdom

The Living Heritage



5



## Water and Livelihoods

### DHAN Vayalagam Way

- Advancing tank based livelihoods through bringing qualitative and quantitative shift in the structure and strategies
- Facilitating adaptation to climate change to make the farm based livelihoods more sustainable
- Enabling the community to make a right choice of livelihoods which is socially sustainable, ecologically conscious, and economically viable
- Improving the soil fertility and crop productivity through tank silt application

Lifeline for Livelihoods



6



## Water and Women

### DHAN Vayalagam Way

- Tank Vayalagams consider the family as its basic unit wherein both men and women gets equal importance
- Exclusive space to women for fish rearing, tree growing, tank-fed cultivation, and medicinal plants cultivation on the tank bund and channel
- Enabling the women self help groups to handle the initiatives on drinking water assurance to poor
- Reducing drudgery of women by providing access to drinking water within their village and preventing them from walking for a long distance

SHE Builds Dignity



7



## Water and Environment

### DHAN Vayalagam Way

- Community-led conservation of water commons serves for climate regulation, ground water regulation, and drought mitigation
- Promoting multilevel people institutions around individual tanks, cascades, sub-basin, basin for a comprehensive conservation and development of ecosystem
- Building freshwater ecosystem for promoting inland fisheries and greening the ecosystem with orchards
- Priority to conservation of water commons provides space for better water use and enhanced crop productivity

Restoration Regenerates Ecosystem



8



## Water and Poverty

### DHAN Vayalagam Way

- Exclusive social capital for poor with distinctive value additions facilitates poverty eradication
- Sustained conservation of water commons fosters self-declaration by members as moved out of poverty
- Federation collective comprising mother federation, Jeevidam, SUHAM and Mutual federations brings holistic growth to the family
- Financial, livelihood and skills related services builds the Vayalagam families as self reliant

Investment Eradicates Poverty



9



## Water and Health

### DHAN Vayalagam Way

- Safe water and sanitation for all through bio sand filter and house hold level water treatment measures
- Safety-net financing for health and insurance through Agriculture Finance Groups
- Primary and secondary health care in a accessible and affordable way through community-led SUHAM healthcare units
- Consistent health care services to the community to get stabilized from the ill effects of Covid pandemic

Equity Ensures Wellness





10



## Water and Partnership

### DHAN Vayalagam Way

- Partners collective comprising banks, governments, academics, CSR and other stakeholders drives Vayalagam institutions towards sustainability
- Partnership graduation facilitates saturation of Vayalagam mission across the basin
- Win-win proposition in partnership brings prosperity and positioning at mutual end
- Partnership beyond geographical boundaries fosters exchange of resources for a collective growth

Vision Leads partnership



11



## Water and Peace

### DHAN Vayalagam Way

- Conservation of water commons commences with conflict resolution which enlarges space for community investment
- Vayalagam institutions acts as a whistle blower to make the water commons move out of encroachment
- Vayalagam Mutual Movement drives the member families towards new social order with equality and responsibility at higher order
- Democracy in decision making and collective responsibility in conservation unites the community beyond boundaries

Justice brings Peace



12



## Water and Literacy

### DHAN Vayalagam Way

- Consistent literacy to the community shapes their investment and performance more professional in conservation of water commons
- Emphasizing water literacy as everyone responsibility and disseminating the traditional technologies aiming to preserve it for generations
- Enabling the Vayalagam leader as resource expert to educate the fellow members on the desirable practices and outcomes
- Water walk and Vayalagam Yatra beyond the boundaries of Basins brings new knowledge and experience to the Vayalagam community

Literacy Cascades Wisdom



13



## Water and Economy

### DHAN Vayalagam Way

- Community-led conservation of water commons brings the resources; generates the resources; and sustains the resources fostering holistic growth in local economy
- Multiple benefits realized through the Federation Collective sustains the family economy at higher order
- Usufructs sharing and Panchayat linkages enlarges community investment through collective endeavours
- SCRIPT through Agriculture Finance Groups expands linkages with mainstream institutions and enlarges the village economy

Collectives Elevates Economy

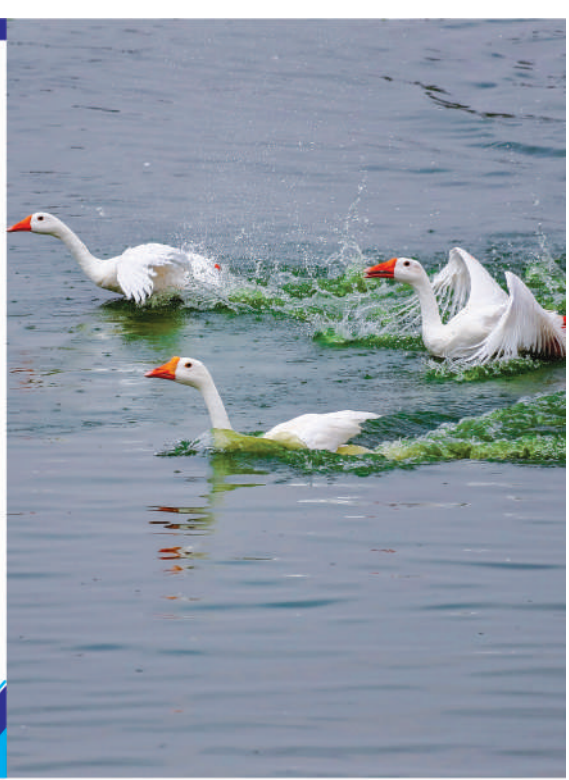


## Water and Leadership

### DHAN Vayalagam Way

- Building leadership at grassroots with high primacy for accountability, transparency and self-regulation
- Vayalagam leaders demonstrates participatory decision making wherein entire members have equal space to contribute and own the mission
- Graduating the grassroots leaders as water leaders to drive development beyond basins
- Integration with National level People Movements to showcase and broadbase Vayalagam brand more pervasive

Leaders Drive Development



## Notes

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