

# TAMILNADU WATER WEEK 2014

Water Management for Sustainable Development

December 8-12, 2014

Bulletin

Day 1: December 8, 2014



Ms. Rohini Ramdoss, Additional Collector, Madurai lighting the lamp

**A**dopting water saving technology is the solution for water scarce regions of the State, which will enable the farmers to harvest more crop per drop was the central message of the Tamil Nadu Water Week 2014. The Tamil Nadu Water

Week 2014 observed during 8<sup>th</sup> to 12<sup>th</sup> December is jointly organized by DHAN Foundation, Madurai, Madras Institute of Development Studies, Water Resource Centre-Anna University, Water Technology Centre- Tamil Nadu Agriculture University, Agriculture College and Research Institute, Madurai, Thiyagarajar College of Engineering.

Dr. K.V.Rao, Chief General Manager, NABARD in his inaugural address said, "The surface and ground water is already exploited. Out of 385 blocks in Tamil Nadu, groundwater resources are heavily exploited in 142 blocks. We are using electricity for collecting groundwater. Because of overexploitation and extraction of groundwater beyond the need, we are wasting water and electricity. We need to learn to use water more efficiently. In order to use the water resources judiciously, water users' organizations need to be promoted in all the areas and technologies that ensure efficient use of water should be promoted".

Corporate must come forward to use their two percent of their profit under Corporate Social Responsibility for promoting water resource conservation and development works, he added.

It is our duty to conserve land and water resources for the next generation, said Dr. S. Natarajan, Ph.D., Vice-Chancellor, Gandhigram Rural Institute. In his keynote address he said, "I appreciate the Vayalagam members for implementing the water conservation works to the tune of Rs. 69.64 crore. Average rainfall of Tamil Nadu is lower than the national average. We are unable to harvest rainwater completely. We need to find a way to harvest the rainwater. We have 62 dams in Tamil Nadu and they can be de-silted once in five years. Until 1965, paddy and betel vine crops were cultivated in the Noyyal river basin. After diverting the industrial waste, the river has become unfit for usage. Presently, industrial waste and sewage water are flowing through the canal. We need to find a technology to change the situation". In Tamil Nadu we have 40,000 tanks, about 30 percent of which are in deteriorated condition due to encroachment. Due to sand mining and encroachment in supply channel we are unable to harvest the rainwater completely. We need to renovate and protect the supply channel, he added.



Dr. Natarajan, Vice Chancellor, Gandhigram Rural University delivering keynote address



**Roof water harvesting model displayed at the Tamil Nadu Water Week Exhibition**

In her special address, Ms. Rohini, IAS, Additional Collector said, "A major share of water resources is used for agriculture. This year we have got sufficient rain and every drop of water must be used efficiently. Farmers must come forward to use water efficient technologies. Though Tamil Nadu is a region of water shortage, the ancestors who lived here are highly efficient in water resource management. The oldest dam, Kallanai is in Tamil Nadu. The District Rural Development Agency is promoting farm ponds to enhance the groundwater level. Farmers must come forward to get their entitlement under the government scheme for improving the ground water level. More importance has to be given for harvesting rainwater".

The participatory approach is the foundation for achieving people desired development. Farmers, together as an institution, need to come forward to work with organizations like DHAN Foundation, said Dr. R.Sakthivadivel, Emeritus Professor, Centre for Water Resources, Anna University. Mr. M. P. Vasimalai, Executive Director, DHAN Foundation, said "our ancestors had many technologies to save and use water efficiently. Such technologies have to be identified and used along with other modern technologies for irrigation. Farmers must prioritize cultivation of less-water-requirement crop like minor millet. By this, we will be able to save water and electricity".

Professor Arunachalam, Thiagarajar College of Engineering and Dr. B.J.Pandian, Director, Water Technology Centre, TNAU felicitated the event. A National level network, "Indian Network of Farmers Federation for Water Resource Management (INFARM)" was launched as part of the Water Week. Mr. Gurunathan, Chief executive of DHAN Vayalagam (Tank) Foundation welcomed the participants and its Chief Operating Officer Mr. N.Venkatesan delivered a vote of thanks. Water experts, students from colleges, farmers, and the public participated in the event. About 500 people participated in all these three events.

### **INFARM – Indian Network of Farmers Federation for Water Resource Management**

A national level network of farmers' federations was launched at the Tamil Nadu Water Week 2014 in Madurai. The INFARM (Indian Network of Farmers Federations for Water Resource Management) is an independent, national network of registered farmers federations, youth organisations and civil society organisations concerned on development and management of water resources. It would be an apolitical and non-religious network, invite only the organisations working on water issues.

The aim of the network is to bring back community governance on traditional water resources, protect precious and heritage water resources and the environment, and promote economic uses of water through integrated water resource management practices.

INFARM would take up policy advocacy on water related issues with the ground experiences and it would facilitate integrated development and management of water resources through capacity building events to Federation Leaders, NGOs/CSOs, Government departments related to management and development of water resources. The network would also take up need based action research projects on development of water resources.

All the member federations of INFARM would govern the network through a general body with the support of a permanent National Secretariat of the network based at Madurai and supported by DHAN Foundation. The Board of Trustees of INFARM would be the people leaders who represent various farmers' federations across the country.

# Demand Management in Tank Irrigation System

As part of Tamil Nadu Water Week, a people seminar on Water Demand Management in Tank Irrigation System was organised in the afternoon of first day. Dr.R.Sakthivadivel, Emeritus Professor, Anna University, Chennai, Dr.K.Palanisami, International Water Management Institute, Hyderabad, Dr.B.J.Pandian, Director, Water Technology Centre, TNAU, Coimbatore and Mr.R.Vasavalingam, Vayalagam Movement were the Panellists.

The Seminar focused on demand management for utilizing the available water efficiently. Participants discussed the need for water budgeting for every tank for deciding the type of crops and varieties that can be cultivated keeping the water available in the tanks,

relevance of drip irrigation to maximize the productivity, crop rotation, selection of less water consuming crops and shift to small millet cultivation will help achieve effective demand management.

Farmers have shared their experiences on community well, tank silt application, crop diversification, and fixing the plug and rod shutters. Farmers have shared their experiences in using of plug and rod shutters for regulating tank water, crop diversification from paddy to barnyard millet which helped to manage the water scarcity, relevance of community well for conjunctive use in tank command area, tank silt application, and installation of pipeline from sluice and irrigation. The deliberations resulted in the following declarations.

## DECLARATIONS

- To ensure the regulation and effective management of water, Public Works Department (WRO), Rural Development Department, NGOs shall organise the users of tanks into Farmers Organisations and enable them to govern their water resources.
- The Farmers Organisations shall undertake water budgeting with the available water in the tanks, based on which they can take up collective crop planning for the tank command area by deciding on area of cropping, crops and varieties. In the years of the low rainfall, as a contingency measure they would cultivate crops that require less water like millets, vegetables and pulses.
- Special loan products or schemes have to be developed by the NABARD and other commercial banks exclusively for the farmers to adopt water efficient technologies like micro-irrigation, laying water conveyance pipelines, tank-silt application, mulching and other water demand management techniques.
- Agricultural Research Stations to take up action research on piped water supply to the command area from the sluice, micro-irrigation in tank command area and other water effective technologies.
- Tank-silt application to the dry lands is the prominent and age-old practice for improving the soil moisture holding capacity. The operational difficulties for getting permission for the tank-silt application for the agricultural purposes shall be simplified. VAOs, assistant agricultural officers, Panchayat presidents and tank associations shall be empowered for issuing approval silt removal for agricultural purpose.
- Tank associations shall be equipped with the endowment fund to carry out annual maintenance of tanks through works like sluice repairing, cleaning the bushes in the channels, and maintenance of the shutters. Government shall help the tank associations to create the endowments through appropriate schemes.
- Wherever possible, community wells have to be created to use the ground water conjunctively along with the tank water during water scarce situations or during the nursery preparation.
- Micro-irrigation shall be made mandatory for the ground water users of the tank command.
- Sluice shutters and surplus weir gates shall be properly maintained by the tank associations in order to avoid the water leakage.
- All the tanks shall be appointed with the “Water Managers” and these water managers shall be empowered with the advanced water management practices.
- Periodical capacity building programme on water demand management shall be organized for the farmers and other stakeholders by the expert institutions and other resource centres.

# Farm Ponds: Climate Smart Solutions in Rainfed Regions

The seminar focused on the relevance and use of farm-ponds in the present context of climate change, and how the farm ponds could do well amidst the vagaries of monsoon resulted by climate change. Farmers and experts came together and exchanged their experiences in farm pond. Best practices in farm-pond based cultivation were showcased by the farmers. The experience of Saveriyarpattinam village in Ramanathapuram district, Tamil Nadu, which has around 450 farm ponds created in the past few years and how they got benefited. Tamil Nadu state government came with new scheme to have 5000 farm ponds in drought prone area after seeing the impact of this village from farm ponds.

The participants narrated how farm ponds are the best adaptation for climate change. Farmers have to do smart agriculture with available water to increase the efficiency and productivity. It requires micro irrigation interventions and success stories of farm ponds should be documented and shared to other farmers for replication and increase the adaptive capacity of poor farmers in rainfed region.

- Farm ponds created in the private lands should be documented in the revenue record to avoid duplication and future management.
- Lifting the water from farm ponds needs innovative cost effective devices through research and development.
- Farm pond farmers have to be organized as like Primary Producer Groups to share the experiences among the villagers or cluster.
- Interest free loan or low interest loans from government scheme and banks to be made available for creation for farm ponds for farmers
- Context wise farm pond design and uses to be appreciated and treated as adaption to climate.
- Integrated farming packages for different ecosystem has to be developed in consultation with farmers to scale up farm ponds to control soil erosion and increase the surface water storage.

## Resolutions

- Farm ponds shall be created like chain of tanks to avoid water flow disputes in all schemes and it would increase the water use efficiency
- Silt removal from farm ponds shall be taken up by using MGNREGA scheme to maintain the water storage of ponds
- State and National Action Plans for Climate Change shall encourage small scale water bodies like farm ponds at the individual farm ponds to adapt climate change

Organised by



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