

**Workshop on  
Sustainable Agriculture Development  
through Demand Management  
in Tank irrigation system at Gundar basin**

14<sup>th</sup> September, 2015  
at Thamukkam Grounds, Madurai

**Madurai Symposium 2015**

Localizing Sustainable Development Goals

## Introduction

Water is essential for life and livelihood, and has a pivotal role in socio-economic development of the country. The ever increasing stress on freshwater resources brought about by population growth and ever-changing demand of water use raises several challenges for planners in the management of water resources. Change in water use often causes conflicts among various stake holders at various levels. Water conflicts in India at the National and State levels are frequent and ever increasing. Situation is no different at local levels also. Number of issues involved in managing water resources like competing demands, scope of increasing water productivity in different sectors, tools that enable most efficient use of available water, maintaining sustainable water quality have to be addressed in a coordinated and integrated manner for effective management of scarce water resources in agriculture.

## Water demand management - tank systems

Almost all monsoon countries in the semi-arid climate depend on small irrigation structures like the tanks. Though they are found all over India, about 60% of tank irrigation is concentrated in Andhra Pradesh, Karnataka, Telengana and Tamil Nadu. Tamil Nadu, with over 39,000 tanks, irrigates one third of the state's irrigable lands. However, storage and supply from tanks for its multiple uses is continuously declining. Because of inadequate institutional development and the piecemeal approach used for implementing the tank rehabilitation, the tanks fell into the vicious cycle of rehabilitation- poor maintenance-deterioration-rehabilitation.

Considering the shortages in storage, and extinction of tanks in many villages demand management needs to be done with great care and pace. Sustainable Agriculture Development (SAD) through demand management in tank system is defined as a set of actions controlling water

demand, either by raising the overall economic efficiency of its use as a natural resource, or by effective operating of agriculture practices with available water. This varies from the traditional approach of hydrologists and engineers who focus on the supply side alone. Forecasts of water demands have often been provided by other departments, ministries or consultants, with a wide range of uncertainty.

## About Gundar basin:

Gundar basin is one of the driest river basin in TamilNadu spread over 3000 hamlets in five district.5 lacks families are residing in this basin most of them marginal, landless and small farming live here for centuries. Total area of the basin spreads against 5660sq.km.The basin receives 550-99mm of Rainfall. There are 2276 tanks, 5500 ponds and 43 diversion weirs are there.85888Ha of lands are irrigated by these tanks which contribute to meet out the food security needs of the people in this basin.

## Sustainable water management in Agriculture:

Sustainable water management in agriculture aims to match water availability and water needs in quantity and quality, in space and time, at reasonable cost and with acceptable environmental impact. Its adoption involves technological problems, social behavior of rural communities, economic constrains, legal and institutional framework and agricultural practices.

Under water demand management most attention has been given to irrigation scheduling (when to irrigate and how much water to apply) giving minor role to irrigation methods (how to apply the water in the field). Many parameters like crop growth stage and its sensitivity to water stress, climatic conditions and water availability in the soil determine when to irrigate or the so-called irrigation frequency. However, this frequency depends upon the irrigation method and therefore, both irrigation scheduling and the irrigation method are inter-related

Finally, all agencies involved in efficient irrigation water management should make every effort to disseminate knowledge, improve education and training at all levels, transfer technology, incite decision-makers to changes, involve the farmers in the decision process and urge the funding agencies and governments to set up the financial means required.

However, water resource policy makers and professionals are now challenged to work out the practical implications of sustainable agriculture development within integrated water resource planning, development and management. New approaches to water management are also beginning to focus on the way in which water is needed and used (efficiency, effectiveness and demand management) in agriculture, rather than simply predicting, planning and providing all its water demands.

In short, there are several necessities to promote and this will enable a paradigm shift towards sustainable development of tank systems.

## Seminar

DHAN Foundation convenes a day-long seminar on “Sustainable Agriculture development through demand management in tank irrigation system at Gundar basin” DHAN also invites others working for the betterment of tank systems to share, discuss and draw action points for a positive policy formulation on the focus of the event. The seminar would bring new insights to deepen our understanding of the focus subject and formulations for future.

DHAN invites all the relevant policy makers, government officials, academics, corporate, water professionals, and farmers to a one day seminar on the proposed subject at Tamukkam ground, Madurai on 14.09.2015.

## Programme Schedule

- 10.00am : Prayer and welcome
- 10.15am : Purpose and background of the seminar
- 10.30am : Opening address: Chairperson
- 10.45am : Lead paper presentation
- 11.15am : Discussion on lead paper findings
- 11.45am : Tea break
- 12.15pm : Paper presentations by the practitioners
- 01.30pm : Lunch break
- 02.30pm : Group Discussion on the theme
- 04.30pm : Synthesis of Group Discussion
- 05.00pm : Conclusion & Way Forward

## Venue and Date of the Seminar

The seminar is planned to be organized in Thamukkam Grounds on 14<sup>th</sup> September 2015

## Registration and contact

Kindly confirm your participation and send your papers if any, along with your travel details through email to

**Mr.N.Rajasekaran**, Programme Leader  
**Mr.Adhinarayan**, Programme Leader  
**Mr.U.Vellaiappan**, Team Leader

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## **DHAN Vayalagam (Tank) Foundation, Madurai**

Tankfed Agriculture Development Programme was one of the thematic programmes of DHAN Foundation towards the purpose of reducing rural poverty. For up scaling the tank programme and for enriching the water related development interventions, DHAN Foundation promoted DHAN Vayalagam (Tank) Foundation (DVTF) which became operational with effect from October 2, 2006. The DVTF is striving for the conservation and development of small scale traditional water resources such as tanks, ponds, ooranies, supply channels etc in addition to the development of watersheds through people's participation. At present DVTF is working in 6 States with the support of Government, National and International Corporate Philanthropies and other funding agencies.

