



Tamilnadu Irrigated Agriculture Modernisation Project

(TN IAM PROJECT)



**Community Collaborative Water Management
in Model Villages**



Implementation Manual

OUT LOOK ON IAMWARM



“Using smart water management and planting practices, **farmers in Tamil Nadu Project** have increased rice yields between 30 and 80 per cent, reduced water use by 30 per cent, and now require significantly less fertilizer. This emerging technology not only addresses food security but also the water scarcity challenge that climate change is making all the more dangerous. These are all lessons for our world”.

Robert Zoellick, President, World Bank,
Article in Hindustan Times, 2010



“Recently I have met **IAMWARM Project officials**. What amazed to me were the enthusiasm and the working spirit of government officials. The unique situation that I have witnessed in this project is the integrated working together of 7 government departments and TNAU. They have implemented SRI in 61,000 Ha. which is yielding more than double the normal productivity of rice”.

-His Excellency Dr. APJ Abdul Kalam
Speech on 06th Jan 2011

“**Model Villages** proved a powerful instrument for integrating interventions at the community level. The villages enabled Government activities to converge in to Multi-departmental teams, the establishment of Single Window Information & Knowledge Centers (SWIKCs) and the community water budgeting exercise as a participatory planning and management tool. These made community members aware of the current uses of existing water resources, enabling them to develop a common vision for more sustainable management options in the future”.

Implementation Completion Report
24th March, 2016.



Tamilnadu Irrigated Agriculture Modernisation Project

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Community Collaborative Water Management in Model Villages



Implementation Manual

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ACTION PLAN FOR MODEL VILLAGE

Aim of Model Village Concept

- To have a holistic approach for ensuring water and food for future generation
- To ensure optimum use of water thereby achieving the project objectives viz...more income per drop of water
- To ensure optimum use of water, equitable distribution of water and thereby water conservation.
- Convergence of water and food sector officials to provide service delivery at the doorsteps of the stakeholders

DEVELOPING MODEL VILLAGE

- By Creating awareness about water scarcity issues
- By involving the community in all activities right from planning stage
- By reviving the defunct water bodies
- As a part of crop diversification, introducing high yield, less water requiring crops for better economic growth
- By sensitizing the community to adopt crop intensification and crop diversification techniques to get over the deficit.

KEY ACTIVITIES TO BE TAKEN UP UNDER MODEL VILLAGE

Community Collaborative Water Management (CCWM)*

- Collection of Baseline Data
- Awareness Creation
 - Entry into villages
 - Building rapport with the community
 - Conducting Awareness meetings
 - Formation of Change Management Group and training them
- Community water Walk
- Participatory Rural Appraisal (Social Mapping & Resource Mapping)
- Village Vision Building
- Conducting Village level water budgeting and development of Decision Support System (DSS)
- Preparation of operational plan for Water Management
- Wall painting of the Village Vision and Water Budget at Prominent Places
- Establishing SWIKC (Single Window Information Knowledge Centre)
- Selection of Youth for liaison between officers and villagers

Checklist:

- ✓ Name board with list of line Department officers and mobile nos
- ✓ Boards & Pamphlets exhibiting schemes (TN IAM & other govt. schemes)
- ✓ Register - shall be maintained which shall contain the details of officer visited (name, designation, date)
- ✓ Details of farmers whom the officer met & brief of discussion / requisition / issues from farmers
- ✓ Action to be taken / suggested by officer and expected date for completion of action
- ✓ Calendar to officers – officers shall commit their dates of visit to village for next 2 months (at least once in 15days)

COMMUNITY COLLABORATIVE WATER MANAGEMENT

'Community Collaborative Water Management (CCWM)' involves the communities at every stage of consultation, group discussion, and decision making. The MDPU staffs facilitate the processes and enable the people to understand and participate in all the programmes.

Process in detail:-

Introductory Program: Involves entry into the villages, rapport building with community and Focus Group meetings

Entry into Villages: The selected villages are visited after giving prior information to the Panchayat Raj Institution, Village, Water Users Associations (WUAs), Women Self Help Groups.

Building rapport with the community: To sensitize the people on this concept of community collaborative approach, informal street corner and water point discussions with the community members to be held to get their support and concurrence.

Awareness Meetings:

- The programme has to be organized with the introductory meeting in the habitations with the participation of the village Panchayat Presidents, WUA Presidents, farmers, women from department officials who are key players in the water sector.



- The objective of the program and the reasons for selecting their village are to be highlighted to the community.

- The entire cross-section of people are informed about the Water Resources Scenario in the village and sensitized them to realize that water is a finite and scarce resource so that they need to involve in all the processes of water management and economic utilisation of the community.

- Several open ended questions to be thrown to the community for facilitating them to think about the present water scenario and sensitize them on the water issues in their village in particular.

- The role of 8 line departments and bringing their services to the village is to be explained to the community.



- During the meeting, in the presence of Panchayat Presidents, the WUA Presidents and the community by informing them that they will come together, cooperate and work in taking up this new concept viz., '**Community Collaborative Water Management (CCWM)**' in the village.

Community Change Management Group (CCMG):

- The Community Change Management Group will essentially consist of the President and Members of the Gram Panchayat, the members of the Village Water and Sanitation Committee the Water User Association, Representations from Women SHG, TANWA women Group Youth Volunteers,

- Including volunteers from working/retired school teachers, retired govt. staff residing in the village members from Dalits and Multi Stake holders etc. This in other words is a forum that provides inclusive space for all village level institutions and unreached community for collectively introspect and find acceptable solutions.
- After the awareness meetings and the formation of CCMG in the village an orientation to the CCMG members must be organised. The first step in the CCWM viz., namely the water walk is to be conducted.

Community Water Walk

- Community Water Walk is a process oriented method which is pioneering the change initiatives in water sector in India and other parts of the world. Community Water Walk initiates the community sensitization process on water which is continuous.



- After the water walk, the community should discuss the water resources scenario of the village based on the information collected. This discussion further motivated them to come together as a community to resolve the issues. This is done with a process called '**Participatory Rural Appraisal**' (PRA).



How to do Community Water Walk

1. Preparations

Visit village prior to water walk in order to contact Village WUA members. Panchayat President, SHGs, Fan clubs and brief them about the programme.

2. Participation of all from the village

Elders : To share their past experience Active farmers,
SHGs: To analyse the present situation. **Youth:** To be aware of the crisis and plan for future. **Other water users:** Pot makers, Dhobi etc.,
School children and teachers: Teachers should be persuaded to consider “Community Water Walk” as part of curriculum for school children and take part in “Community Water Walk”.

3. Participation of WRD and other line departments

Inform the department officials well in advance and request them to participate in the community water walk and fix appropriate date which is suitable for all.

4. Meeting place

Common place which is acceptable to all sections in the village. It can be SHG hall, Panchayat community hall, under a tree.....

5. How to sustain the interest of Villagers

The Community Organizer / Paraworkers to ensure that the department officials catch hold of village community in groups and discuss on different aspects of the village. This is the strategy to be adopted by facilitators mainly to sustain the interest of the community to take active part in the water walk till the end of it.

6. Water Walk : Sequence

1. Briefing meeting, 2. Facts about Water (With specific reference to that particular village), 3. Water as livelihood source, 4. Village water context, 5. Visiting Water resource spots in the village (Ponds, tank, canals, marshy lands etc.), 6. Visiting agriculture fields, 7. Coming back to starting point (meeting place), 8. Mapping Village Water Resources & 9. Analysing the water context in the village.

Participatory Rural Appraisal (PRA)

- The PRA is to be organized in each village involving the participation of the CCMG members and other village communities to analyze the local resources and the problems relating to the water situation in their village. This participatory process viz., 'Participatory Rural Appraisal (PRA)' helps the community to understand the water scenario in their respective villages and motivate them to involve themselves in all the processes initiated to get over the water crisis



How to do PRA

Field visit (staying in the field, relaxed participant observation and conversation)

Frequent visit to the village to establish rapport prior to the PRA exercise

Venue should be a place where all sections of villages could assemble without inhibition (Common Place like Street Corner, Muchandhi, School Ground) in-consultation with villagers

Should reach different sections of people the place and time of social mapping and water budgeting exercises invite them for the exercises explaining the purpose

The facilitator should initiate the process of mapping by initiating the drawing with a stick on floor

There after he should handover the stick to the villagers

Social Mapping of the village followed by resource mapping

Interview about the map by asking questions on the aspects which are not clear about, ask for more information on them, if necessary

Copy the map on to a large sheet of paper

Expected outcome

The village community becomes consciously aware of the water resources of the village and changing trends.

Time required

12 Hours (Do it in two days)

Material required

Rangoli powder for mapping on the floor or sketch pens for mapping on chart paper.

Resource Mapping For Critical Analysis

How to do Resource Mapping ?

- The trainer will facilitate the WUA farmers, Women SHGs, Panchayat members to draw the irrigation water resources on the floor or chart and generate discussion on the past and present scenarios of the water bodies of the village.
- Generate discussion on the changing trends in the village, especially in the water context.
- How are these water tanks being maintained? (The facilitator shall raise series of question pertaining to poor maintenance of the tank by the community).
- Whose responsibility is the maintenance of the tank? (The facilitator shall ask the farmers. (Most of the tanks in TN were constructed two to three centuries ago by our ancestors. They did it for their future generations. Is it not our responsibility to maintain tanks ? The trainer shall keep asking these questions.
- What are the reasons for poor maintenance of these important water bodies? (List out the reasons and also fix the responsibility)
- The need for maintaining the tanks.
- The need and importance of Collaborative Water Management. Process called '**Participatory Rural Appraisal**' (PRA).



Water Budgeting

After conducting water walk and PRA in the village the water management initiatives are to be commenced. The first step is to prepare 'Water Budgeting'.

What is Water Budgeting?

Water Budgeting is one of the key activities under "Community Collaborative Water Management" at village level. It envisages a rough estimation of the water resources available in the village and also the requirements of water for various sectoral uses and equating them to arrive at "Water Balance". The net deficit / Surplus indicate the water scenario in the village will form the basis for micro level water management plan in the village to ensure optimum use of water.

How to do Water Budgeting?

The Water Budgeting exercise has to be done in the presence of all stakeholders using PRA as a tool. All the stakeholders are to involve them in the decision making process for implementation of alternative strategies to be taken up in the village. The model calculation is as below.

Data Required For Water Budgeting

Name of the Village: SIRUNAGAR

Water Availability:-

- a) Area of the Villages : 529.15 Ha.
 b) Annual average Rainfall : 1.0 Metre
 c) Capacity of PWD Tank : 0.41 MCM
 d) Capacity of Panchayat Union Tanks : 0.045 MCM

Water Requirement:-

a) For Drinking Water:-

- i) Human being (Population) : 1851 Nos.
 ii) Cattle: : 882 Nos.

b) For Agriculture purposes:-

Sl.No	Type of Crop	Extent (Ha)
1	Paddy Conventional	106.00
2	Pulses	2.00
3	Groundnut	140.00
4	Vegetables	3.00

Crop Water Requirement

Sl.No.	TYPE OF CROP	CROP WATER REQUIREMENT (Conventional)			Technology	CROP WATER REQUIREMENT (Technology)		
		mm	Lakh Litre / acre	Lakh Litre / Hectare		mm	Lakh Litre / acre	Lakh Litre / Hectare
1	Paddy (Conventional)	1200	48	120	SRI	800	32	80
2	Maize	600	24	60	DRIP	400	16	40
3	Chollam/sorgam	500	20	50	DRIP	300	12	30
4	Kambu/little Millet	450	18	45	DRIP	300	12	30
5	Ragi/ Finger Millet	500	20	50	SPRINKLER	300	12	30
6	Pulses	400	16	40	SPRINKLER	300	12	30
7	GroundNut	450	18	45	SPRINKLER	300	12	30
8	Gingelly	250	10	25	SPRINKLER	160	6	15
9	Cotton	750	30	75	DRIP	500	20	50
10	Surgarcane	1800	72	180	DRIP	900	36	90
11	Vegetables	450	18	45	DRIP	300	12	30
12	Bananna	1800	72	180	DRIP	900	36	90
13	Mango	350	14	35	DRIP	150	6	15
14	Coconut	350	14	35	DRIP	150	6	15
15	Other Trees	250	10	25	DRIP	150	6	15

c) For Industrial Purposes:- If any

Water Budget Calculation Format

Name of Village : SIRUGNAGAR

1. Water Availability:-

- a) Area of the Villages : 529.158 _ Hectares (ha)
b) Annual average Rainfall : 1.0 metre
c) Quantity of water received due to rainfall : 529.15. x 1.0 Ha. m.
: 529.15 x 100 Lakh litres
: 52915.00 Lakh litres.

This quantity of water gets converted as below:-

- i) Ground Water @ 10% : 5291.50 Lakh litres ----- (i)
ii) Surface Water @ 20% : 10583.90 Lakh litres ----- (ii)

Remaining 70 % water absorbed in soils, trees and plants.

iii) From surface water, Lakes and ponds get filled up as below:-

- 1) Sirunagar PWD Tank (60% of the Capacity 0.41 MCM) : 0.41 x 0.60 = 0.246 MCM
: 0.246 x 10000 Lakh litres
: 2460.00 Lakh litres.

- 2) Panchayat Union Tanks (60% of the Capacity 0.045 MCM): 0.045 x 0.60 = 0.027 MCM
: 0.027 x 10000 Lakh Litres
: 270.00 Lakh Litres

Total Water stored in Water Bodies (1+2) : 2460.00 + 270.00 = 2730.00 ----- (iii)

After filling up of the water bodies, the surface water leaves the village after recharging the ground water.

- iv) Recharge to Ground Water by Surface Water @ 20% = (ii) - (iii)
= (10583.00 - 2730.00) x 0.20
= 1570.60 Lakh Litres ----- (iv)

Total Water Availability (i + iii + iv) = 5291.50 + 2730.00 + 1570.60
= 9592.10 Lakh Litres ----- (A)

II Water Requirement:-

a) For Domestic Purposes:-

- i) Human being (Population 1851; @ 70 litres/person/day) : 1851 x 70 x 365 / 100000
: 472.93 Lakh litres
ii) Cattle: (882 @ 60 litres/cattle/day) : 882 x 60 x 365 / 100000
: 193.15 Lakh litres.

Total Drinking Water Requirements (Human + Cattle) = 472.93 + 193.15 Lakh Litres
= 666.08 Lakh Litres ----- (a)

b) For Agriculture purposes:-

1) Conventional Method:-

Sl.No	Type of Crop	Extent (Ha.) (P)	Crop Water Requirement	
			mm (Q)	(Lakh Litre) P*Q*0.1
1	Paddy	106	1200	12720.00
2	Groundnut	140	450	6300.00
3	Pulses	2	400	80.00
4	Vegetables	3	400	120.00
Grand Total				19220.00

Water requirement for Agricultural Purposes: 19220.00 Lakh Litres ----- (b)

Total water requirement (a) + (b) = 666.08 + 19220.00 = 19886.08 lakh Litres ----- (B)

III). WATER BALANCE : Total water availability - Total water requirement
= (A) - (B = 9592.10 - 19886.08 = (-) 10294.00 Lakh Litres

i.e., Deficit/ Surplus of 10294.00 Lakh litres

Deficit/ Surplus ratio = (B/A) = 19886.08 / 9592.10 = 2.07

2) Intervention of Technology and Crop Diversification:-

Sl.No	Type of Crop	Extent (Ha.) (R)	Crop Water Requirement	
			mm (S)	(Lakh Litre) R*S*0.1
1	Paddy (SRI)	106	800	8480.00
2	Groundnut (Sprinkler)	140	300	4200.00
3	Pulses	2	300	60.00
4	Vegetables	3	300	90.00
Grand Total				12830.00

Water requirement for Agricultural Purposes: 12830.00 Lakh Litres ----- (b1)

Total water requirement (a) + (b1) = 666.08 + 12830.00 = 13496.09 lakh Litres ----- (C)

III). WATER BALANCE : Total water availability - Total water requirement
= (A) - (C) = 9592.10 - 13496.09 = (-) 3904.00 Lakh Litres.

i.e., Deficit/ Surplus of 3904.00 Lakh litres

Deficit/ Surplus ratio = (C/A) = 13496.09/ 9592.10 = 1.41

Note: - UNIT CONVERSION - Hectare Meter (Ha. m) x 100 gives Lakh Litre, Hectare Milli Meter (Ha. mm) x 0.1 gives Lakh Litre, Million Cubic Meter (MCM) x 10,000 gives Lakh Litre

Strategies to be adopted to get over the Water deficit

Water budgeting is an exercise meant for sensitizing the community to assess their village water status. Cropping decisions must be taken at the end of the water budgeting exercise. Cropping decision should be derived by involving Head and tail end farmers.

After assessing their village water situation the entire village (community) should take a participatory decision of changing their cropping pattern with the main focus of "More Income per Drop of Water".

தண்ணீர் வரவு செலவு அறிக்கை WATER BUDGETING

கிராமம்: சிறுநகர், ஒன்றியம்: சித்தாமூர், வட்டம்: சேய்யூர், மாவட்டம்: காஞ்சிபுரம்.
கிராமத்தின் பரப்பு 356.15 ஹெக்டேர், மக்கள்தொகை 1951 ஆண்டின் சராசரி மழை அளவு 1044mm

தண்ணீர் வரவு	கூடுதல்	தண்ணீர் செலவு	கூடுதல்	பற்றாக்குறையை நிவர்த்தி செய்யும் வழிமுறைகள்
நிலத்தடிநீர் வரவு / கிரம்பு (மழையினால் நேரடி வரவு)	5291	வீடம் உபயோகத்திற்கு தேவை (மனிதத் தேவை)	473	1. பாரம்பரிய முறையில் நெல் சாகுபடிக்கு பற்றாக்குறு திருந்திய நெல் சாகுபடி செய்வதின் மூலம் மூன்றில் ஒரு பங்கு தண்ணீர் சேமிக்கலாம். அதை கொண்டு ஒன்றரை மடங்கு பாசன யுற்பை அதிகரிக்கலாம். 2. நெல்லுக்கு பதிலாக பயிடுவகை பயிடுகளான நிலக்கடலை, மக்காச்சேளாள் பயிரிட்டால் நீரை சேமிக்கலாம். 3. கோட்டைகளை பயிடுக்கு சொல்நீர் பாசன அமைப்பதின் மூலம் 40% முதல் 50% வரை நீரை சேமிக்கலாம். 4. விளாண்டிக் நில மூலம் மூலம் (MULCHING SHEET) கோட்டைகளை பயிடுகள் சாகுபடி செய்வதின் மூலம் களை மற்றும் நீர் ஆவியாவகை கட்டப்படலாம். 5. திறம்பட மழை நீர் சேகரிப்பு கட்டடமும் மூலம் நிலத்தடிநீரை சேமிக்கலாம்.
உபரி நீர்	1571	கால் நடைகளுக்கு தேவை	193	
மழப்படி நீர்வரவு கிரம்பு	—	விவசாயத்திற்கு தேவை	1922	
வொதுப்பணிக்குறை ஏரி	2440	—	—	
பஞ்சாயத்துக்குறை ஏரி	270	—	—	
வெடுத்த தண்ணீர் வரவு	1572	மொத்த தண்ணீர் செலவு	1936	

தண்ணீர் நிகர பற்றாக்குறை வரவு செலவு சமன் 1205 மடங்கு தண்ணீர் பற்றாக்குறை 1022 மடங்கு விடப்.

கிட்டில்லாதந்த
தண்ணீர்

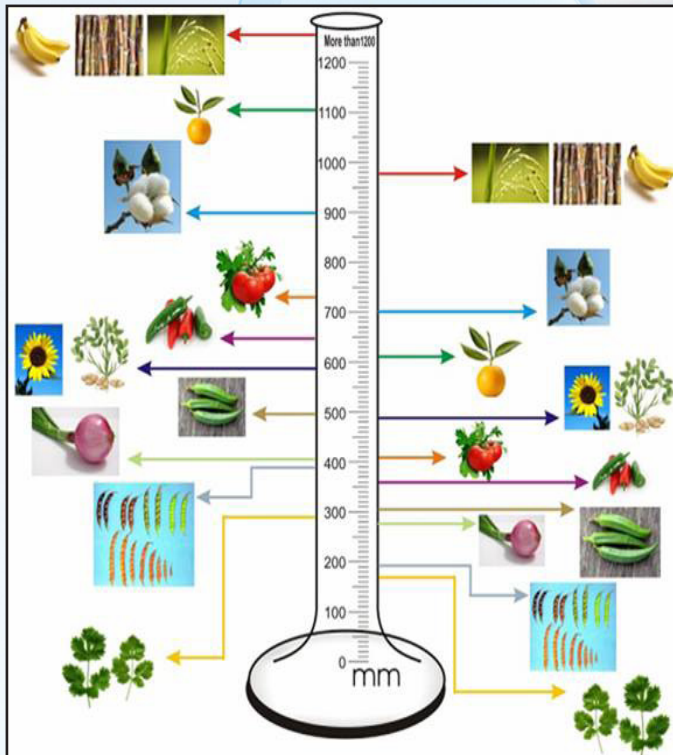
கிட்டில்லாதந்த
தண்ணீர்

TN IAMWARM Project
நீர்வள நிலவளத் திட்டம்

Decision Support System (Cropping Decision Support System)

Decision support systems are information systems including Adhoc knowledge based systems that support decision making activities.

Demystified tools of DSS



Conventional

After Crop intensification & diversification

Operational Plan

The water balance deficit/surplus is discussed among the community to evolve strategies to get over the deficit for ensuring optimum use of water and equitable distribution of water through shared vision planning and trade off. The finalised strategy evolved by the community will be the “Operational Plan” for the particular season.

Village Vision

What is the Village (Water) Vision?

Vision is a desired future situation that could be reached through collective community effort.

Vision for the village will play a very important role in achieving the development goals of the village. It is called Village Water Vision due mainly to the fact that without water, no development can take place. In other words, the development of the village depends upon the availability and accessibility of water to all. While doing Participatory Rural Water Appraisal for the village, people would have realized this fact. Vision for the village plays very critical role in binding the people of different social strata in the village.

Conflicting goals are common in water management scenarios. Conflicts over water often emerge when different groups of households and farmers have different goals. A common “Water Vision”, which is value based as well as action oriented, arrived through a process of micro analysis of water context in the village with the participation of relevant stake-holders, would be the first and foremost step towards the process of **“Community collaborative Water Management (CCWM) for holistic development of the village”**.

The process of Evolving a Village (WATER) Vision involves all key stakeholders (Village people, Relevant service providers from Public Sector and other well-wishers of that particular village).

How to Build a Village Water Vision

1. Drawing a village map as it was seen 20 years back. (Elderly people shall be facilitated to participate very actively in this process)
2. Drawing a village map as it looks now.
3. Trend analysis: While they have a look at the both pictures, facilitate the village people to track important changes from the past to the present. Note down important trends, ask them what will be the future scenario of the village if these trends continue, ask them whether these changes are good or bad for the village.

4. Evolving the vision for future: Ask people, how they want their village look like after 20 or 30 years. Some of the key questions to be asked while evolving the vision for the village
 - What was left to us by our ancestors and what we are going to leave for our future generations (Especially, in the context of Water bodies)
 - How were the water bodies protected in the past and how we are protecting them now? Are we not going to do anything for augmenting availability of water in our village? If we protect them properly how would our village look like after few years?
 - What was the area under cultivation in the past, what it is now? How we are going to increase the area under cultivation? If we do that, how would our village look like after few years?
 - What are the basic needs of our village, if all basic needs of the village are fulfilled, how would our village look like after few years?
 - What is the development we think for our village? (Discuss on what is the development. Make them understand that development is one's capacity to meet his/her basic needs and that makes them to live with dignity.)
5. While above discussions are going on, ensure that a group of youth of the village draw the picture of their future model village. Involve all people of that village to visualize their village after 10 years.
6. Also facilitate them to set goals such as (More area under cultivation, More area under crop diversification, more area under Micro Irrigation, availability and accessibility of safe drinking water to all in the village, equitable distribution of water for irrigation, ensuring water for irrigation to the tail end farmers etc.,)
7. The vision village may look like
 - A village which is protecting and nurturing water bodies (Tanks, Ponds, Open wells etc.,)
 - A village where people are living self-sufficiently. More area under cultivation. More area under crop diversification. More employment for land less agricultural laborers, More income for farmers.
 - A village with basic facilities like School, Primary Health Centre, Playground for children, Bus Shelter, Community Hall, etc.,

- Water and Sanitation facilities to all in the village
 - More area of the village under Model coverage.
 - Modern agricultural implements.
 - Increased ground water tables in the village.
- 8 The role of the facilitator is to guide the village people to evolve a realistic, value based vision for the village.
 9. Process documentation of evolution of village vision is very important. See that somebody does it properly.
 - 10 It is suggested that the village vision is painted on a public wall in the village. See that it is painted at a place so that everyday more people have access to see the vision of their village.



Single Window Information & Knowledge Center (SWIKC)

What is the Village (Water) Vision? What is a SWIKC

A Single Window Information & Knowledge Centre (SWIKC) is a common platform for the officials and farmers to meet and discuss issues.

Where should it be located?

It is to be located in a common place in the Model Village offered by the villagers either free of rent or on minimum rental basis. The SWIKC may be a room in the Panchayat office/Community Hall/Veterinary Clinic etc.

Purpose

- To provide on Schemes, Extension services, Problem solving
- To bridge the gap between the farmers and officials (farmer friendly)
- To provide integrated Service at the door step of the farmers.
- To improve the relationship with the Community and build confidence

What can you find in a SWIKC

- Information brochures of all Department activities
- Register of Villagers queries and grievances and action taken by officials
- Display of Schedule of the visiting officers with their mobile numbers, date and time.
- Current year Programme for that village
- List of previous year's beneficiaries
- Important paper cuttings on Water, Environment, Agriculture & Animal Husbandry

How to develop and maintain a SWIKC

- Identify a common place in the village where the villagers have easy access. (It may be Panchayat building or WUA's building or Village library or Community centre).
- Put a visible board in the SWIKC Centre
- Put another board mentioning the department officials Name, Department, Phone Number, day and time of visits.
- All the line department activities in that village should be displayed in the SWIKC (at least 2 boards or charts per each department) explaining their department activities and the ongoing programme.
- A register should be maintained in the SWIKC. Where the officer attending the SWIKC should sign and write the queries made by the villager with their name and address and the remedies suggested.
- If the queries are pertaining to other department officials he can mention it in the same register for follow up action by the concern department official.
- Frequency of visits:
 - o Once in a week - Village level officer. (specify the day and time)
 - o Once in 15 days - All the 8 department officials should meet in the SWIKC and sort out remedies to the villagers problem apart from that they conduct village camp, agrimela and exhibition in that village, highlighting the village success.



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ROLES AND RESPONSIBILITIES OF EACH DEPARTMENT

General

- Organizing & contributing to combined village meetings.
- Inauguration and functioning of SWIKC.
- Painting of water budgeting, village vision and officials name with mobile number.
- Identification of village volunteer.
- Awareness campaign for farmers, School Children, SHG and TANWA.
- Tree planting programme and its maintenance involving students and by the individuals in the village.
- Each department should keep two charts explaining their ongoing schemes and technologies specific to the village.

Water Resources Department

- Co-ordinate with the Collector and all TN IAM Line departments.
- Awareness campaign should be conducted for WUA's in all the model villages by involving all the line Departments.
- Organize and guide cleaning of inflow channels and field channels, water courses etc by dovetailing NREGA.

Agriculture Department

- Soil sampling and issue of soil health card to the farmers in each village.
- Ensuring Demonstration of silpaulinvermi compost @ one in each village.
- Exclusive campaign should be conducted for explaining water saving techniques in Agriculture pertaining to that village.
- The officials in charge of DoA should at least bring 50% of the paddy area under SRI with the main focus on Alternate Wetting and Drying.
- Necessary arrangements should be made to shift from surface irrigation in Sugarcane to Micro Irrigation availing the existing government schemes.
- Cropping pattern / sequence of the particular village should be altered in such a way to take of water saving and enriching the soil fertility such as Green Manure - SRI and Rice Fallow Pulses.
- Separate Exhibition / Mela / FFS should be arranged by the DoA in each village highlighting the success pertaining to that village.
- Facilitation to supply coconut seedling or other tree seedling at a subsidized cost to the needy villagers.

Horticulture Department

- Study the area for Horticulture potentialities and provide the technology for shift to Horticulture atleast to the 25% of the village cropped area.
- Micro Irrigation and Mulching should be encouraged to tide over water and labour scarcity, wherever possible.
- Encouraging more area under vegetable and fruit crops with more farmers to achieve "More Income per Drop of Water".
- More concentration should be given for the small, marginal and women farmers for installation of Micro Irrigation to enable for easier crop diversification.
- Exposure visit may be organized for two selected farmers from each village for the promotion of Hi-tech Horticulture.
- Dovetail the requirements if any with NHM and similar departments programs for requirement of any additional input.

Agricultural Engineering Department

- The details of percolation pond created by the AED department in the selected Model villages may be handed over to the District Collector for the revival / rehabilitation of the created structure as water harvesting structure, using MGNREGA labour force.

- AED should play a significant role in promoting the water harvesting technologies by excavation of farm ponds in the farmers field.
- Joint campaign by the revenue officials (VAO, RI, Tahsildar) should be organized in each village with the prior intimation to the Horticulture and Agriculture Department and Micro Irrigation companies enable to issue the necessary records as per the request of the Small Farmer/ Marginal Farmer.
- Necessary speedy steps to be taken clear the pending MIS application in the selected Model villages.
- The requirement of Farm Machineries to the Model villages may be explored and supplied by dovetailing with the existing government schemes.

Tamil Nadu Agricultural University

- More emphasis and a separate training should be organized by combining the farmers from all Model villages on the following topics.
- Training on after care and maintenance of Micro irrigation.
- Need for crop diversification and location specific cropping pattern change.
- Encouraging agri allied livelihood sectors such as Dairy farming, Goat rearing etc., depending upon location situation.
- An off campus training (Like FFS) may be organized in all the model villages.
- Take necessary action to make the model village as a pesticide free village.

Agri. Marketing and Agri. Business

- Formation of effective commodity groups and convert into Farmer Producer Company.
- Enroll more farmers in all the selected village for DMI and DEMIC and forward the soft copy of the information to the MDPU team at Chennai.
- Market linkage with reputed companies who need the product.
- Training on grading and value addition of agriculture produce.

Animal Husbandry Department

- Calf Management - Deworming and salt lick.
- Mastitis Management demo.
- Strengthening breeding program - Artificial Insemination.
- Conduct infertility cum Health care camp in all the selected Model villages and issue Cattle health cards.
- Supply of fodder inputs (Fodder Cholam, Fodder Maize, Cowpea and Agathi) by dovetailing other government schemes to the Model villages.

Fisheries Department

- Promoting eco friendly aquaculture in irrigation tanks.
- Promoting Sustainable eco friendly aqua farming in farm ponds.
- Capacity building of farmers in fish seed rearing, fish farming & marketing.

Panchayat Raj Institution

The Panchayat Institutions should take advantage of the initiative of the multi sector officials and take ownership of the Model Village. Proactive participation in issue of Rural Water Supply, Sanitation, Cleanliness and reducing the plastics, recycling waste water etc is expected.

CAPTAIN OF A VILLAGE, CONCEPT & ROLE

- ✓ Each line Department should nominate a person to act as the captain of the model village. The captain will coordinate the activities of all departments in that village. He will take lead in calling for joint meeting, reports etc.
- ✓ Certainly it doesn't mean the village captain of a particular department need not go to the other villages pertaining to their department activities. It is necessary that their department activity should find a place in all the adopted villages.
- ✓ He can identify a village volunteer for mobilizing the community.
- ✓ He should take a lead role by involving other line departments for organizing a joint water walk, water budgeting exercise, vision building etc.,
- ✓ He is also responsible for organizing a Mela / village meeting / skill demonstration / exposure visits with the help of concern department.
- ✓ He has to take responsibility for maintaining SWIKC in his village and he should show interest for normal effective functioning of the SWIKC.
- ✓ It is mandatory of the village captain to sensitize the entire community about their village water status through water budgeting exercise.
- ✓ He should be a better facilitator for the implementation of needy government schemes to the community irrespective of their involving the department.

OUTCOME INDICATORS

Bringing additional area under cultivation
Irrigating non-irrigated areas
Increased cultivable area

Productivity (t /ha) & Production
Gross and Net Irrigated Area (ha)
Farmer income

Increase in micro irrigation systems and their usage
Increase in Land & water productivity

Area under MI units (ha)
SRI command area (ha)

Sufficient water availability for people & livestock
Ground Water table increase

Water bodies without blockage bushes
Minimum 200+ trees planted with survival rate of 90% (1 tree / family)

SWIKC in every village

Line dept officers visiting villages regularly & addressing farmer queries (comparative)

Equitable water sharing

Unresolved water disputes

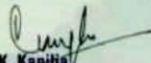



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Secretary, CBIP


A.B. Pandya
President, CBIP

1st January 2015, New Delhi



**TN IAM Project MDPU Office,
Dam Safety Building,
Chepauk, Chennai - 600 005
Phone No : 044 - 28591059
Website: www.iamwarm.gov.in
email: mdputn@gmail.com**