

CONCEPT NOTE FOR UPSCALING MODEL VILLAGES PROGRAMME UNDER IAMWARM PROJECT

Background:

The USP of the IAMWARM Project lies in its multi sectoral, multi stake holder construct. It has been well established that gains in water productivity can only be achieved through converged action of all the 8 departments wholistically at village level.

To Engender this convergence a model village program was piloted in the project. The pilot focused on

- a) Strong multi department Team Work at the Village level,
- b) System of regular and combined field visits for sharing information at pre designated dates (which later evolved as Single Window Information and Knowledge Centre)
- c) Holistic Water Vision approach towards Water management Cropping husbandry and livelihood practices.
- d) An improved level of WUA & Community Participation and
- e) Overall improved income per unit of water.

During their visit to a few model villages in September, 2012, the World Bank Mission was impressed to witness the progress in the model villages the impact of convergence of line department officials in improving project interventions due to change management initiative and functioning of Single Window Information Centers (SWIC). Similar was the response of dignitaries from GOI, other states and countries.

The recent World Bank Mission from May 20th to 27th (para 4 of Aide Memoire of May, 2013 Mission) suggested to upscale the number off Model villages with strategic development plans in convergence along with increased capacity building activities of WUAs.

Objective:

To harness the impact created in the project in pilot model villages and to upscale them across the Project area. To create these villages as project beacons to ensure sustainability beyond the project.

Scope:

400 model villages spread over 17 districts (Annexure II) will be established with strategic converged development plans, dovetailing departmental interventions along with increased capacity building activities of WUAs and service providers.

Goals:

In model villages, focus will be on entire village to create appreciable outcomes and not on the Demo area only. By carrying out the above activities and interventions(detailed vide Annexure-III), it is proposed to target the following outcomes in each village. (at across village level)

- Upto 50 % reduction in the gap area in the ayacut in the village (w.r.t. WOP).
- 25 % increase in conveyance efficiency of channels(time travel method)
- WUAs well trained and effective
- 30% increase in area under Horticulture crops in each village.
- 10% increase in diversification (by Horti., Agri., and TNAU w.r. to WOP)
- 25 % increase in Horti. crop productivity
- 20 % increase in cropping intensification
- 25 % increase in average crop productivity
- Yield improvement in Tonne /Ha. Paddy – 25 %; Maize-25 %; Pulses – 20 %; Others – 20 %
- MI for 25 % of area under technically feasible crops
- 10 % increase in marketable income (or upto Rs.10,000/ha/year) of at least about 120 farmers in each village
- Villagers will be trained to assess the water availability, undertake water budgeting, use Decision Support System for selection of crops and cropping extent. They will be empowered to maintain the irrigation system below the sluice, themselves.

Selection of Model Villages:

The District Collector will finalize the model villages (revenue village) in consultation with the district level officers of line departments. The District level Co-ordination Committee (DLCC) will be responsible for the Planning, Implementation, and Monitoring of the program. The Suggestive criteria for selection of model villages will be

1. The villages in which already model village activities have been commenced will be included in the list. First priority will be for villages within the IAMWARM Project area.
2. A cluster approach i.e., at least three or four villages shall be closed to each other in a radius of 5 KMs.
3. An active WUA or any other informal farmer's group existence is preferable.
4. Any other special advantage like scope for large scale SRI, Crop Diversification, Horticulture is preferable.

Action Plan:

The DLCC shall approve an action plan for each village. A minimum of four or five departmental interventions either under the IAMWARM Project or by dovetailing from State/GOI programmes should be undertaken in the selected village in the next 12 months. Special action plans should be made by the Collector to dovetail activities with NREGA especially channel clearing etc.

Implementation Strategy:

The MDPU - IAMWARM Project will provide detailed operational guidelines on the Strategies for implementation of Model Village Programme. The Key Components of the model village program would include WUA participation through Community mobilization, Single Window Information Knowledge Centre, pre scheduled combined field Visits, a well documented grievance and problem solving mechanism, wholistic Water Vision, Water Budgeting, Water Conservation and Productive Water Use, Crop Decision Support system associated with Water Management / Conservation interventions and Cropping Technologies, E-velanmai and Livestock Interventions, increase return on farm produce.

Co-ordination & Monitoring:

The WRO in the field and PWID in government will be the monitoring, coordinating and Nodal department for this program.

The District Collectors will review the program on alternate Mondays of the month and submit monthly reports to the project and the government. The HOD will also closely monitor the program through their line functionaries and keep the government informed on a monthly basis.

Multi Sectoral Interventions:

The interventions proposed by each IAMWARM department in the 400 Model Villages may be from the suggested list below. (specific details in the table in Annexure- III) and other strategies and innovations the department may decide. The focus should be on impacting the whole village with crop and allied gains with increased income and better management.

Water Resources Department:

1. Objective:

- Reduction in gap area
- Conveyance efficiency to be increased by 25 %
- WUA to be trained and made effective

2. Strategy:

- Repairs to Tanks in the Villages to be ensured either under IAMWARM outlay already allotted or General M&R Funds.
- PIM activities to be strengthened with focus on shared water vision, conservation including water budgeting exercises and strengthened ensuring the involvement of Farmers /Villagers in Planning, Implementation and management of systems
- Impact and Collect data on improved Irrigation in terms of bridging of gap areas and improved Conveyance efficiency and Improved storage in Tanks.
- Converge with NREGA (with support of the District Collector) for rehabilitation of inlet and outlet channels

Agriculture Department:

1. Objective:

- 20% increase in cropping intensity.
- 10 % diversification.
- 25 % increase in intensification (improved agronomy)
- Yield improvement in tonne/Ha
 - a. Paddy - 25 %
 - b. Maize – 25 %
 - c. Pulses - 20 %
 - d. Others - 20 %

2. Strategy:

- 5 Ha. Crop Demos shall be made in each village (as an average)
- Deployment of ATMA Volunteers for Agri. /Horti. Development works shall be envisaged, at one for every two villages for (adoption of diversified water saving crops and agronomic practices)
- Seeds and inputs shall be issued before the crop season
- Special focus on the performance and spread of impact area. Collect data on Yield improvements
- The required funds to a tune of Rs.2.73 Cr. will be met from the exchange rate savings in the project.
- The HOD can issue go ahead orders for 25% of the area immediately.

Horticulture Department:

1. Objective:

- 30% increase in area under horticulture in each village.
- 10 % increase in diversification to horticulture area w.r.to WOP.
- 25 % increase in crop productivity.

2. Strategy:

- 5 Ha. Demos shall be made in each village (as an average)
- Providing plastic trays to handle the vegetables 5 Nos/ ha.
- Providing Shade Net with portrays to raise community nursery in at least 55 villages.
- Mulching the vegetable fields with plastic sheets.
- Collect data on Yield improvements.
- Required funds to a tune of Rs.5.00 Cr. will be met from the exchange rate savings in the project.
- The HOD to issue orders for go ahead for 25% of the area.

Tamilnadu Agricultural University:

1. Objective:

- 20% increase in cropping intensity.
- 10 % diversification.
- 25 % increase in intensification (improved agronomy)

- Yield improvement in tonne/Ha
 - e. Paddy - 25 %
 - f. Maize - 25 %
 - g. Pulses - 20 %
 - h. Others - 20 %

2. Strategy:

- At least 1 ha Precision farming in each village on average
- Establish e-Velanmai in atleast 100 villages (along with Agri. Department)
- Expand the Optimization model in minimum 50 villages
- Provide crop husbandry technologies to Agri. and Horti. Departments
- Recruit needed SRF to achieve these.
- Expenditure of Rs.5.00 Cr. to be met from the savings in it's existing outlay of Rs.86.68 Cr.

Agriculture Engineering Department:

1. Objective:

- MI for 25 % technically feasible crop

2. Strategy:

- At least 5 ha MI (with fertigation as per need) in each village.
- Farm pond 100 Nos. wherever feasible.
- The funds required to a tune of Rs. 8.60 Crores will be met from the existing outlay of Rs. 158. 39 Crores

Agri-Marketing Department:

1. Objective:

- To cover at least 50% of all non paddy farmers (120 farmers as an average)
- To increase the income of these farmers by atleast 10 % i.e. by 10000 /- (over control group) in combination with other departments

2. Strategy:

- Form at least 3 crop Commodity Groups in each village.
- Try to provide Drying yard / facilities catalyzing, wherever feasible
- Encourage Value addition activities including the establishing of vegetable outlets (from at least 100 villages).

- The funds to a tune of Rs.1.10 Cr. to be met with from the department outlay of Rs.66.14 Cr.

Animal Husbandry:

1. Objective:

- To increase milk yield.

2. Strategy:

- Conducting at least one camp in each village
- Develop Fodder cultivation
- Conduct more awareness campaigns
- The funds required to a tune of Rs.40.00 Lakhs will be met from the existing department outlay of Rs.41.40 Crores.

Fisheries:

1. Objective:

- 20% of tanks should have cage based seed or fish rearing.
- To provide 5 nos. of Kiosks for promoting hygienic fish marketing and better income to aqua culturist.

2. Strategy:

- To provide 80 Nos. of fish rearing in fixed cages in suitable irrigation tanks.
- Provide minimum 5 nos. of Kiosks wherever possible
- The approximate funds to a tune of Rs. 60.00 lakhs will be met from the department outlay of Rs.17.80 Crores.

Apart from the above interventions the District Collectors and HODs may be requested to add synergy by dovetailing from the ongoing State/GOI programmes.

General:

1. For capacity building, training etc, a provision of Rs. 1.40 Cr is made at the rate of Rs. 35000/- per each village to be incurred by E.E., WRD, Sub Basin Nodal Officer (vide Annexure –IV).
2. All Departments can use the IEC and training Funds to provide capacity Building activities;

3. MDPU will also do the necessary documentation, monitoring and evaluation of the Model Villages program.

Budget:

Funds are required, to carry out the necessary activities in the Model villages in a systematic manner and complete them within the project period i.e.30.9.2014.

The Department wise funds requirements are:

I. Additional Proposal

Sl. No.	Departments	Amount (Rs. in Crores)
1	WRD	1.40
2	Agriculture Department	2.73
3	Horticulture Department	5.00
	Sub Total	9.13

II. Reallocation of existing Outlays

1	Agri Engineering Department	8.60
2	Agri Marketing Department	1.10
3	Tamilnadu Agriculture University	5.00
4	Animal Husbandry Department	0.40
5	Fisheries	0.60
	Sub Total	15.70

The additional funds of Rs.9.13 Crore required for Model village programme in respect of Horticulture department, Agriculture department and WRD for capacity building, training etc will be met from the dollar exchange rate savings of Rs.220 Cr.

In respect of other line departments AED, Agri Marketing, TNAU, AHD and Fisheries the total amount Rs. 15.70 Crores required for the activities in the model villages will be met from their existing project outlays.

**IAMWARM PROJECT
District wise Model Villages**

Sl. No.	District	No. of Model Villages
1	Coimbatore	25
2	Cuddalore	25
3	Dharmapuri	30
4	Dindigul	20
5	Kancheepuram	35
6	Krishnagiri	15
7	Madurai	20
8	Pudukottai	25
9	Trichy	10
10	Salem	20
11	Sivagangai	20
12	Tiruvallur	30
13	Theni	20
14	Vellore	25
15	Villupuram	30
16	Virudhunagar	20
17	Tiruppur	30
	Total	400

Targets and Activities planned in model villages with estimate cost

Sl. No.	Department	Target /Impact to be created in each village	Activities planned		Estimate (Rs.)				Remarks
			in each village	in total 400 villages	Subsidy/ Rate	Per village	For 400 villages	Total cost	
1	WRD	i. Reduction in gap area &Partially irrigated area by 50 %	i. Completion of rehabilitation of tanks under IAMWARM						No additional fund is required.
		ii. Conveyance efficiency to be increased by 25%(time travel method)	ii. To ensure no leakage of water in all sluices						Rehabilitation of tanks already proposed in DPRs under IAMWARM Project to be completed. Any repairs to additional components required if any will be met from any other scheme.
		iii. WUA to be trained and made effective	iii. WUA to undertake atleast one maintenance work themselves ii. Contribution by farmers in various ways iii. Number of meetings to be conducted regularly iv. Bank A/C to be opened v. Water budgeting to be learnt and done vi. village vision to be created vii. Water Sharing / management principles codified						The awareness to WUAs to be carried out under PIM activities already estimate sanctioned for Rs. 22.04 Crores.
2	Agriculture	i. 20% increase in cropping intensity	i. Demo 5 Ha	2000 demos	10000/-per Ha	50000	20000000	27300000	(Rs.2.73 Cr.) Funds to be met from dollar savings

		ii. 10 % diversification	iii. IEC/Training etc	iii. IEC/Training etc	1000/-per Ha.demo	5000	2000000		
		iii. 25 % increase in intensification (improved agronomy)	iii. Deploying Atma volunteer - 1 No.for two villages (for Agri and Horti department works)	200 numbers	2000/- per person/month	12000	4800000		
		iv. Yield improvement in tonne/Ha	iv. Others				500000		
		a. Paddy - 25 %							
		b. Maize - 25 %							
		c. Pulses - 20 %							
		d. Others - 20 %							
			+						
3	Horticulture	i. 30% increase in area under horticulture in each village	i. Demos - 5 nos.	2000 demos	15000/-per Ha		30000000	49991500	(Rs.5.00 crore) Funds to be met from dollar savin
		ii. 10 % increase in diversification to horticulture area w.r.to WOP .	ii. Plastic tray - 20 nos.	Plastic tray -10000 Nos.	150/-each		1500000		
		iii. 25 % increase in productivity	iii. Shade net	shade net in 55 villages	150000/- each		8250000		
			iv. Protrays -	300 Nos per Unit 300X55=16500 Nos	15/-each		247500		
			v. Mulching the vegetable fields with plastic sheets	1142 ha	7000/ha		7994000		
			vi. IEC/Training etc	iii. IEC/Training etc	1000/ per Ha.Demo	5000	2000000		
4	TNAU	i. 20% increase in cropping intensity	i. e-velanmai	i. e-velanmai	No separate fund			50000000	50 SRF at 10 villages / SRF be deployed.
		ii. 10 % diversification	ii. Optimisation	ii. 50 villages					

		iii. 25 % increase in intensification (improved agronomy)	iii. To provide crop husbandry technologies to Agri.dept & Horti dept.	iii. To provide crop husbandry technique to Agri.dept					Funds required for Rs.5.0 Cr. to be met from the existing outlay of Rs.86.68 Cr.
		iv. Yield improvement in tonne/Ha	iv. precision farming - 1 Ha.	iv. Precision farming- 400 Ha.					
		a. Paddy - 25 %							
		b. Maize - 25 %							
		c. Pulses - 20 %							
		d. Others -20 %							
5	AED	i. MI for 25 %of technically feasible crop	i. 5 Ha.M.I.(with fertigation as per need)	i. M.I 2000 Ha.	No separate fund required		8000000	86000000	Funds required for Rs.8.60 Cr. to be met from department outlay of Rs.158.39 Crores.
			ii. Farm pond 100 Nos. Wherever feasible	Rs.60000 per pond			6000000		
			iii. IEC						
6	Agri.Marketing	ii. To cover atleast 50% of all non paddy farmers (120 farmers as an average)	1. Commodity Group formation - 3 Nos. (non paddy crops)	1200 CG	5000/- per CG		6000000	11000000	Funds needed for 1.10 crore. to be met from department outlay of Rs.66.14 Crores
			2. Drying yard						Priority will be given from 369 Nos. in process

		ii. To increase the marketable income of these farmers by atleast 10 % (or upto Rs. 10000 /ha / year) in combination with other departments	3. Value addition	100 market models	50000 / vge.		5000000		
7	Animal Husbandry Dept	To increase milk yield	i. To conduct atleast one camp in each village ii. Develop fodder Co-3 or Co-4 Slips. iii. Develop fodder Maize or Chulam	400 Nos. 20 Ha. 50 Ha.	9000 Per Camp 16000 Per Ha. 1400 Per Ha.			3990000	Funds needed for 0.399 crore. to be met from existing outlay of Rs.41.40 Cr.
8	Fisheries department	i. Fish Culture in cages fixed in irrigation tanks - 50 Nos. ii Fish seed rearing in cages fixed in irrigation tanks - 30 Nos. iii. To provide 5 nos. of Kiosks		50 Nos. 30Nos. 5 Nos.	60000 Per unit 25000 Per unit 450000 Per unit			6000000	Funds needed for 0.60 Cr. to be met from existing outlay of Rs.17.80 Cr.
9	Community Mobilisation, Capacity Building, Monitoring, Reports, Documentation, Training & Travel, etc. by Executive Engineer, WRD Sub Basin Nodal Officer.				35000/- Village	35000	14000000	14000000	To be met from \$ savings

Annexure-IV

Estimate for Capacity Building and training etc for model village activities

Sl. No.	Description of item	No. of units	Rate/ unit	Amt in Rs.
I 1	For one model village : Expenses towards conducting about 10 meetings for Capacity Building and training for officials and community and following indicative activities, amongst others activities I. Initial convergence meeting (1 No.) II. Awareness meetings at habitation level (3 Nos.) III. Community transect water walk (1 No.) IV. Meeting for PRA Exercise – 1 No. V. Meetings for Water budget and decision support systems – 2 Nos. VI. Meeting for eco friendly activities – 2 Nos. etc	10 meetings	750/ each	7500
2.	Establishment of SWIKC including rent, maintenance expenses such as colour washing, minor repairs, painting and display of boards, registers	LS	5000	5000
3	Painting of village vision and water budgeting calculations in promptly visible public places	LS	5000	5000
4	Travel support to officials to attend above meetings and SWIKC on shared basis for hiring the vehicles / POL charges	LS	7500	7500
5	IEC material, A.V. inputs, School Programs, etc.,	LS.	5000	5000
6	Documentation, photography, Reports, Success stories recording, Monitoring & communication charges etc	LS	5000	5000
	Sub Total for each village			35000
II	Total (35000/village* 400 villages)			Rs.1.40 crore

ANNEXURE -V
Additional Proposal - Head of Accounts

Water Resources Department

Target / impact to be created in each village.

- i. Reduction in gap area & Partially irrigated area by 50 %
- ii. Conveyance efficiency to be increased by 25 %(time travel method)
- iii. WUA to be trained and made effective

Sl. No	Activities	Remarks
1.	Completion of rehabilitation of tank in the village	Rehabilitation of tanks already proposed in DPRs under IAMWARM Project to be completed. Any repairs to additional components required if any will be met from any other scheme. The awareness items to be carried out under PIM activities already estimate sanctioned for Rs.22.04 Crores,
2.	To ensure no leakage of water in all sluices	
3.	WUA to undertake at least one maintenance work themselves	
4.	Collection of charges from farmers	
5.	Number of meetings to be conducted regularly	
6.	Bank A/C to be opened	
7.	Water budgeting to be learnt and done	
8.	Community mobilization, Capacity Building, Monitoring, Reports, Documentation Training & Travel, etc. (vide Annexure-IV)	

TN-IAMWARM PROJECT - AGRICULTURE DEPARTMENT

Targets and Activities planned in Model Villages with Estimate Cost

I. Target / Impact to be created in each Model Village:

- i. 20% Increase in cropping intensity
- ii. 10 % Crop Diversification
- iii. 25 % Increase in Intensification (Improved Agronomy)
- iv. Yield improvement in MT/Ha
 - a. Paddy - 25 %
 - b. Maize - 25 %
 - c. Pulses - 20 %
 - d. Others - 20 %

II. Activities planned in Model Villages:

Sl. No.	Component Details	Physical	Total Amount (Rs. in Crores)
1	Crop demonstrations for 5 Ha in SRI (3 Crop sequence), Maize and Pulses etc., (as location specific) @10,000/ Ha. Total cost per Village: Rs.10,000 /- x 5 Ha. = Rs.50,000 /-	2000 Ha. in 400 Model Villages	2.00
2	IEC / CB Programmes: Campaigns & Village meetings, Demarcation Flags & Field boards, Trainings for farmers & Agri. Laborers, Field days, POL and Other Contingencies @1,000/ Demo. Total cost per Village: Rs.1,000 /- x 5 Ha. = Rs.5,000 /-	400 Model Villages	0.20
3	Engaging / Deploying ATMA Volunteer (Farmers Friend) – 1 No. for Two Villages (for Agri and Horti departmental works) Total Volunteer cost: Rs.2,000 /- (for 2 Villages) x12 Months = Rs.24,000 /-	200 Volunteers	0.48
4	Workshops, Trainings etc: @ Rs.1,250 / Village	400 Model Villages	0.05
Grand Total			2.73

III. Head of Account:

Sl. No.	Component Details	Amount (Rs. in Crores)
1	2401-00-109 PE Improved Agriculture for Tank Irrigation under TN IAMWARM	2.4843
2	2401-00-109 PF Improved Agriculture for Non-Tank Irrigation under TN IAMWARM	0.2457
	Total	2.7300

Horticulture Department

Funds required for the additional activities to be implemented in 400 model villages covering 17 districts under

IAMWARM PROJECT in 2013-14.

Target / impact to be created in each village.

- i. 30% increase in area under horticulture crops in each village.
- ii. 10% increase in diversification to horticulture crops w.r. to WOP.
- iii. 25% increase in Horti. crop productivity.

Sl. No.	Activities	Unit	Subsidy	Total cost in crores	Head of Account
1.	Vegetables area expansion	2000 ha @ minimum 5 ha in each village	Rs. 15000/ha	3.000	Noted in the following page
2.	Plastic trays to handle the vegetables	5 Nos/ha 2000*5 = 10000	Rs. 150/tray (Rs. 750/ha)	0.150	
3.	Shade net with portrays to raise community nursery	55 Nos (each 500/sqmt (in selected 55 villages)	@ 300/Sqmt 500*300*55	0.825	
4.	Pro trays for shade net units	300 Nos per unit 300*55 = 16500	Rs 15/per pro tray	0.025	
5.	Mulching the vegetable fields with plastic sheets	1142 ha	Rs. 7000/ha	0.800	
6.	IEC/CB	2000 ha	Rs. 1000/ha	0.200	
Total				5.000	

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IAMWARM PROJECT

District wise Model Villages

Sl. No.	District	No. of Model Villages	Head of A/c
1	a. Coimbatore b. Tiruppur	25 15	2401-00-Crop Husbandry -119- Horticulture and Vegetable Crops-PC-Improved Horticulture in Non-Tank irrigation under TN IAMWARM Project. (DPC 2401 00 119 PC 0001) Rs.0.50 Crores
2	Cuddalore	25	2401-00- Crop Husbandry -119 Horticulture and Vegetable crops - PB - Improved Horticulture for Tank irrigation under TN IAMWARM Project. (DPC 2401 00 119 PB 0003) Rs.4.50 Crores
3	Dharmapuri	30	
4	Dindigul	20	
5	Kancheepuram	35	
6	Krishnagiri	15	
7	Madurai	20	
8	Pudukottai	25	
9	Trichy	10	
10	Salem	20	
11	Sivagangai	20	
12	Tiruvallur	30	
13	Theni	20	
14	Vellore	25	
15	Villupuram	30	
16	Virudhunagar	20	
17	Tiruppur	15	
	Total	400	



Project Director MDPU <mdputn@gmail.com>

Re: TNIAMWARM Project ? Proposal for up scaling Model Villages Programme under IAMWARM ? NOC requested - Regarding.

Ecook@worldbank.org <Ecook@worldbank.org>
To: MDPU <mdputn@gmail.com>

Wed, Jun 26, 2013 at 6:26 AM

Dear Sir,

The Bank has no objection to the attached proposal for scaling up the Model Villages Program under IAMWARM Project.

With regards,

E. Cook
TTL
IAMWARM

MDPU ---06/17/2013 05:43:35 AM---Sir, Sub:

From: MDPU <mdputn@gmail.com>
To: Ecook <Ecook@worldbank.org>
Date: 06/17/2013 05:43 AM
Subject: TNIAMWARM Project - Proposal for up scaling Model Villages Programme under IAMWARM - NOC requested - Regarding.