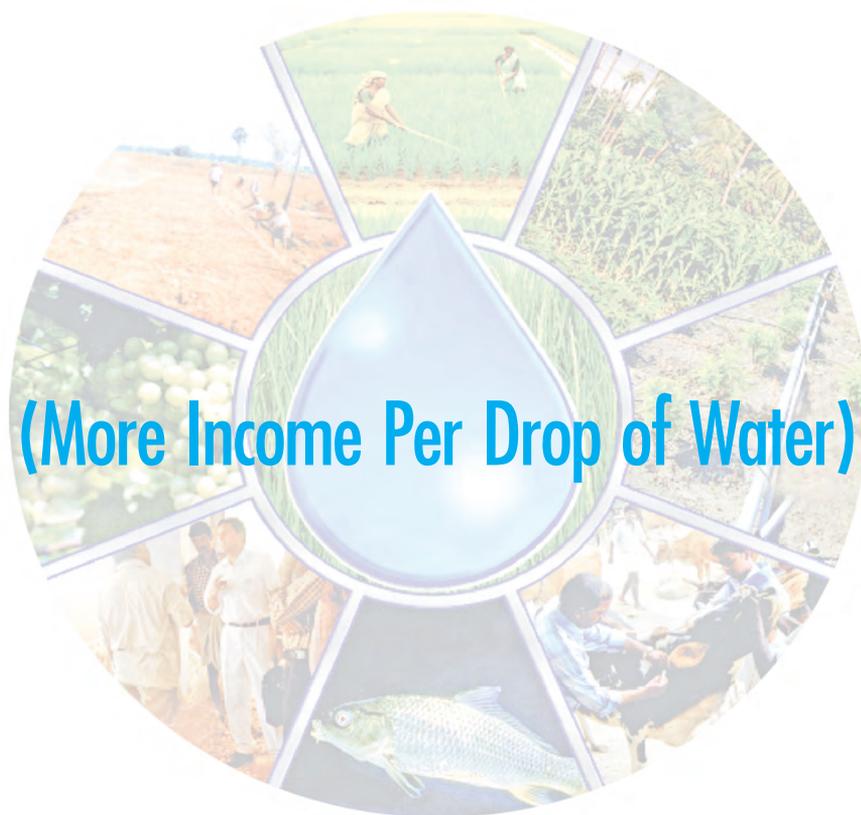


**TAMIL NADU IRRIGATED AGRICULTURE MODERNIZATION AND
WATER-BODIES RESTORATION AND
MANAGEMENT PROJECT**



**ANNUAL REPORT
(2009 – 10)**

FOREWORD

The total water resources of Tamil Nadu were estimated at 44361 Mm³ (2001). The estimated Gap was 7452 Mm³ which indicates that the State of Tamil Nadu is one of the water stressed States of the country. Tamil Nadu Irrigated Agriculture Modernization and Water-bodies Restoration and Management (IAMWARM) Project, in the context of serious water stress in the State, is aimed at augmenting the productivity by using the available water efficiently and effectively in order to enable the farmers to get more profit for each drop of water that is used for agriculture.



It is a widely known fact that agricultural sector in Tamil Nadu consumes about 85 percent of the total water that is available. Through its crop diversification activities, the Agriculture Department & Tamil Nadu Agricultural University under the IAMWARM Project have successfully facilitating farmers to change their cropping pattern from high to low water requirement crops. System of Rice Intensification (SRI), one of the achievements of the project, is being promoted and propagated throughout the State. SRI in Tamil Nadu can save 30% of irrigation water and double farm incomes. Moreover, there is scope for increasing Tamil Nadu rice production by 1.20 million tonnes with comparatively less water consumption.

IAMWARM has initiated a unique process of 'Convergence' amongst 8 Line Departments that are directly associated with development of farmers in Tamil Nadu. It has been a process of linkage of expertise from 8 Line Departments without loosing their respective identities. ***"Convergence has not only brought problem solving focus, but also enhanced the competitiveness and competencies among the Line Departments, without doubt, this concept has potential for creating wonders a paradigm shift in the villages"***.

The Project enables the participation of Water User Associations (WUAs) in the implementation and equitable sharing of benefits of the Project. Efforts have been taken for the formation and capacity building of Water User Associations in all the 63 sub basins. This process should culminate in the participation and ownership of the Water User Associations (WUAs) of water assets and their maintenance.

The Annual Report for the year 2009-10 is an exercise in learning from the experiences of the previous years, aimed at consolidating the best practices so as to achieve long lasting impact on the irrigated agriculture scenario of the State.

A handwritten signature in blue ink, appearing to be 'S. Ramasundaram'.

S. Ramasundaram, IAS,
Principal Secretary to Government,
Public Works Department,
Government of Tamil Nadu.

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More Income Per Drop of Water



1. STATUS OF THE PROJECT

More Income Per Drop of Water



1. STATUS OF THE PROJECT

Irrigated Agriculture Modernization and Water – Bodies Restoration and Management (IAMWARM) is a multidimensional project that envisages bringing about positive changes in the context of Irrigated Agriculture and Farm ecology & economics, involving multiple stake holders both at facilitation and Implementation levels. The project is proposed to be implemented in 63 sub basins in Tamil Nadu. The Project intends to expand the area under Irrigated Agriculture through effective and efficient Irrigated Water Management practices in order not only to grow more crops per drop, more meat, milk and more fish per drop but also to facilitate the farmer in achieving more income per drop of water that he uses for agriculture. The project formulated with World Bank assistance was approved by the Government with an outlay of Rs.2,547 crore, over a period of six years from 2007 to benefit 6.17 lakh hectares.

Objective of the Project:

The IAMWARM project aims to improve the service delivery of irrigation systems and productivity of irrigated agriculture with effective integrated water resources management in a sub-basin framework.

Irrigation systems modernisation in a sub-basin framework:

This component seeks to improve bulk water delivery through modernisation of irrigation systems in 63 selected sub-basins with an ayacut of 6.17 lakh hectares. Activities involve

tank system modernisation by restoring and repairing water bodies and improving canal irrigation systems through repair and rehabilitation.

Agricultural Intensification and Diversification:

This component builds on the improved bulk water delivery to increase the productivity of agriculture-related activities through improved agricultural intensification and diversification of crops, micro irrigation, Animal Husbandry & Inland Aquaculture.

Institutional Modernisation for Irrigated Agriculture:

It is sought to improve the institutional capacity for irrigation service delivery through the Water Resources Department and the Water Users Associations (WUAs) with technically better designs and in a socially sustainable manner. The Water Users Associations would be utilized to implement Participatory Irrigation Management (PIM) by involving farmers.

Water Resources Management:

The institutional arrangements and capacity for sustainable water resources management is proposed to be improved by the Water Resources Department through specialization & working with WUAs. Apart from this, water research would be taken up on relevant topics through Irrigation Research Fund (IRF).

Project Implementation (2007-2010)

The project covers an area of 6.17 lakh ha. spread over 60 sub basins out of the 127 sub-basins in the State.

Phase-I - Implementation was initiated during 2007-08 in 9 sub-basins covering an extent of 2.895 Lakh hectare with an outlay of Rs.714.94 crore in respect of all Departments put together. In the first year itself, works have been successfully initiated by all the Departments.

Phase - II -During the financial year 2008-2009, 16 more Sub-Basins with an ayacut of about 0.672 Lakh ha. were taken up with an outlay of Rs.243.25 Crore.

Phase-III - DPRs preparation for the 30 Sub Basins with an ayacut of 1.821 Lakh Ha have been approved. Procurement plans for these sub basins are in process.

Phase – IV – Apart from Cooum & Adayar sub basins three alternate sub basins viz., Cheyyar & Killiyar, Paralayar & Kayalkudiyar has been proposed to taken up for an ayacut of 0.78 Lakh Ha.

Water Resources Department:

In respect of Water Resources Department, for the 9 Sub Basins of the first phase necessary bids were finalised for 66 packages with an outlay of Rs. 400.083 crore. Works were completed in 45 packages. 10 second year packages of PAP have also been commenced at a value of Rs.49.225 crore & of this 7 packages were completed. For the 16 sub-basins in Phase II, bids have been finalised for all the 43 packages with an outlay of Rs. 189.053 Crore. Works are in progress in all packages

Phase – I Sub Basins Progress

Rehabilitation of irrigation infrastructure -9 sub-basins		Proposed	Completed	In progress
a)	Tanks	1636 Nos	1112 Nos	479 Nos
b)	Anaicuts	252 Nos	212 Nos	34 Nos
c)	Supply Channels	3120.76 Km	2764.25 Km	194.87 Km

More Income Per Drop of Water



Phase-II Sub Basins Progress

Rehabilitation of irrigation infrastructure -16 sub-basins		Proposed	Completed	In progress
a)	Tanks	764 Nos	154 No	469 Nos
b)	Anaicuts	171Nos	56 Nos	77 Nos
c)	Supply Channels	1019.49 Km	110.71 Km	484.04 Km

Water Users' Association:

Under Participatory Irrigation Management, elections to 1333 Water Users Associations have been completed during 2009 – 2010. During this year elections to 1028 WUAs pertaining to III Phase sub basins have been conducted. On the whole, 2271 WUAs have been formed out of 2361 WUAs in I, II & III Phase Sub basins.

Agricultural Engineering Department:

Micro Irrigation systems have been installed in 1385 hectares. 630 farm implements were procured and distributed to WUAs during the current year. This component is under re – negotiation with the Bank because of the lack of take off of Micro irrigation.

Water Resources Department Budget Provision and Expenditure

Rs. in Crores

Sl. No	Year	Budget allocation (RE/FMA)			Actual Expenditure		
		Tank	Non Tank	Total	Tank	Non Tank	Total
1	2007-08	27.51	34.12	61.63	17.48	17.13	34.61
2	2008-09	163.92	60.74	224.66	155.90	42.27	198.17
3	2009-10	218.78	76.05	294.83	216.84	76.04	292.88
4	2010-11	290.95	52.48	343.43			
	Total	701.16	223.39	924.55	390.22	135.44	525.66

Agriculture Department:

Crop Demonstrations for paddy, pulses, maize, groundnut etc, were conducted in 27615 hectares in 25 sub basins. Significant improvement in yield 46.80% average in paddy (SRI), 58.60% in Maize and 25.20% pulses was achieved. An impact area of 195768 hectares has been identified and 170903 hectares was covered. Further, of the crop demonstrations of 19906 Ha. Conducted up to previous year, 18823 Ha were sustained during the year also.

Exceptional yields were recorded in SRI, Maize and Pulses demonstrations i.e.

- ◆ Anaivari odai Sub Basin, Nakkampadi Village – Paddy 16750 Kg per hectare as compared to 7416 Kg per hectare in the previous year.
- ◆ Palar sub basin, Dasevpatti village – Maize 13304 Kg per Ha as compared to 8041 Kg per Ha in the previous year.
- ◆ Agniyar Sub Basin, Ponnayal village - Pulses (Black gram) 1780 Kg per hectare as compared to 910 Kg per hectare in the previous year.

Horticulture Department:

Both by way of Diversification and Transfer of Technology an additional area of 20107 hectares, has been brought under fruits, vegetables and other horticultural crops as on March, 2010 over the 25 sub basins.

Tamil Nadu Agricultural University:

The new System of Rice Intensification (SRI) demonstration was introduced in an area of 2581 hectares with an impact area of 10286 hectares. With the SRI technique rice yields have shown 40 to 80 percentage improvement over the conventional practice. In some areas exceptional yields have been achieved.

- ◆ In Swethanadhi Sub Basin Anaiyam Patti Village Hybrid Rice recorded 10.4 Tons per hectare under SRI method of cultivation as compared to 6.25 Tons per hectare during previous year.
- ◆ Thumbal Village of Upper Vellar Sub Basin using improved production technology of pulses recorded 810 Kg per hectare as compared to 360 Kg per hectare (69% increase in yield) during last year.

Agricultural Marketing:

To assist the farmers to get better price 542 Commodity Groups for diversified crops like Chillies, Maize, Groundnut, Banana etc, have been formed. Memorandum of understandings between farmers & companies for different commercial crops like maize, mango, chillies, etc., have been facilitated. The leading effort in this direction was the combined effort of the MDPU, District administration and the Department along with M/s TATA to popularize pulses.

More Income Per Drop of Water



Animal Husbandry Department:

To increase the conception rate Infertility and total Veterinary Health Care camps were conducted. To improve milk yield, the availability of green fodder was increased and an additional area of 5206 hectares was brought under fodder cultivation.

Fisheries Department:

The Department has promoted Aquaculture in 458 farm ponds as additional income generating activities. Carp seed rearing in 74 units of net cages and in 12 seed banks has also been promoted. Ten ornamental fish culture units are established to promote rural employment and income to farmers.

Table 1 – Component wise Expenditure upto 31.03.2010

Components	Estimate in USD	Estimate in Rs. Crores	Expenditure up to March 2010
A-Irrigation System Modernization	282.83	1273.00	506.18
A1-Tank US\$ 241.28 (Rs.1086Cr)	241.28	1086.00	370.74
A2-Other than tanks \$ 41.55 (Rs.187Cr)	41.55	187.00	135.44
B-Agricultural intensification & diversification	166.24	748.00	120.27
B1-Tank \$ 117.18 (Rs.527 Cr)	117.18	527.00	92.76
B2- Other than tanks \$ 49.05 (Rs.221 Cr)	49.06	221.00	27.51
C-Institutional Modernization	52.69	237 .00	19.48
D-Water Resources Management	5.00	22.50	0.00
E-Project Management Support	8.22	37.50	11.00
Total Base cost	514.98	2318.00	656.93
Physical contingencies	15.03	67.00	0.00
Price contingencies	35.99	162.00	0.00
Total	566.00	2547.00	656.93

Table 2 – Department wise Expenditure upto 31.03.2010

Department	Estimate in USD	Estimate in Rs Crores	Expenditure up to March 2010
Water Resources Organization	348.74	1570.00	536.66
Agriculture	21.79	98.00	14.13
Horticulture	16.17	73.00	28.50
Agri. Engineering	75.40	339.00	18.70
Agri-marketing & Agri- business	20.53	92.50	19.06
TNAU	19.76	88.90	24.33
Animal Husbandry	8.73	39.30	10.26
Fisheries	3.86	17.30	5.29
Total Base cost	514.98	2318.00	656.93
Physical Contingencies	15.03	67.00	0.00
Price Contingencies	35.99	162.00	0.00
Total	566.00	2547.00	656.93

More Income Per Drop of Water



Table 3 – Status of Salient Activities of Departments

Sl. No	Department	Components	Unit	2007-08		2008-09		2009-2010	
				Program	Acht	Program	Acht	Program	Acht
1.	Agriculture	Crop Demonstrations (Paddy, Maize etc)	Ha	13155	13155	6751	6751	7709	7709
		Financial	Rs. in lakhs	452.205	427.730	394.726	385.127	719.958	701.037
2.	Horticulture	Area Expansion (Fruits, Vegetables etc)	Ha	6139	6047	9564	9310	4891	4745
		Financial	Rs. in lakhs	858.120	634.766	1615.943	1515.538	871.07	783.50
3.	TNAU	SRI, Precision Farming etc	Ha	4230	3344	9320	8360	9489	8426
		Financial	Rs. in lakhs	974.260	424.77	2006.14	1140.92	2299.85	943.17
4.	Agri. Marketing	Storage shed drying yards etc	Nos	102	54	* 137	77	*142	82
		Financial	Rs. in lakhs	883.08	388.54	853.54	583.56	985.92	933.23
5.	Agri. Engineering	a) Micro irrigation	Ha	2000	2146	2000	1942	22487	1385.15
		b) Farmpond	Nos	240	240	837	838	-	-
		Financial	Rs. in lakhs	2244.980	439.13	1432.54	1409.98	3379.42	158.46
6.	Animal Husbandry	a) Artificial insemination	Nos	150000	21368	*319132	295878	*232990	220049
		b) Est. of veterinary units	Nos	50	27	38	25	65	45
		Financial	Rs. in lakhs	357.14	238.84	431.85	353.40	338.03	341.42
7.	Fisheries	Aquaculture in Farm ponds	Nos	194	37	418	232	249	188
		Financial	Rs. in lakhs	224.690	143.55	320.87	320.78	133.32	68.851

* Includes spill over works

Table 4 – Details of Reimbursement claimed and ACA released in 2007-08, 2008-2009 & 2009-10

(Rs. in Crores)

Sl. No.	Year	Expenditure			Reimbursement Claimed			Claims Admitted (upto 31.03.2010)			ACA Released (for claims admitted)			GOI Grant to be released @ 50% of the amount claimed	GOI Grant released	GOI Grant yet to be released
		Tank	Non Tank	Total	Tank	Non Tank	Total	Tank	Non Tank	Total	Tank	Non Tank	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15=(50% of Col.6)	16	17=15-16
1	2007-08	30.23	26.96	57.19	27.21	24.26	51.47	27.21	24.26	51.47	27.08	24.37	51.45	13.61	13.61	0.00
2	2008-09	191.76	58.53	250.29	172.59	52.67	225.26	172.59	52.67	225.26	156.36	53.82	210.18	86.30	69.03	17.27
3	2009-10	241.11	83.58	324.69	216.94	75.43	292.37	216.94	75.43	292.37	81.55	37.24	118.79	108.47	40.77	67.70
	Total	463.10	169.07	632.17	416.74	152.36	569.10	416.74	152.36	569.10	264.99	115.43	380.42	208.38	123.41	84.97
4	Advance	-	-	-	-	-	-	-	-	-	32.35	68.65	101.00	-	16.18	-
	Grand Total	463.10	169.07	632.17	416.74	152.36	569.10	416.74	152.36	569.10	297.34	184.08	481.42	208.38	139.59	84.97

ACA released as Advance 101.00 Cr.
 ACA released for claims admitted 380.42 Cr.
 Total ACA received 481.42 Cr.

More Income Per Drop of Water



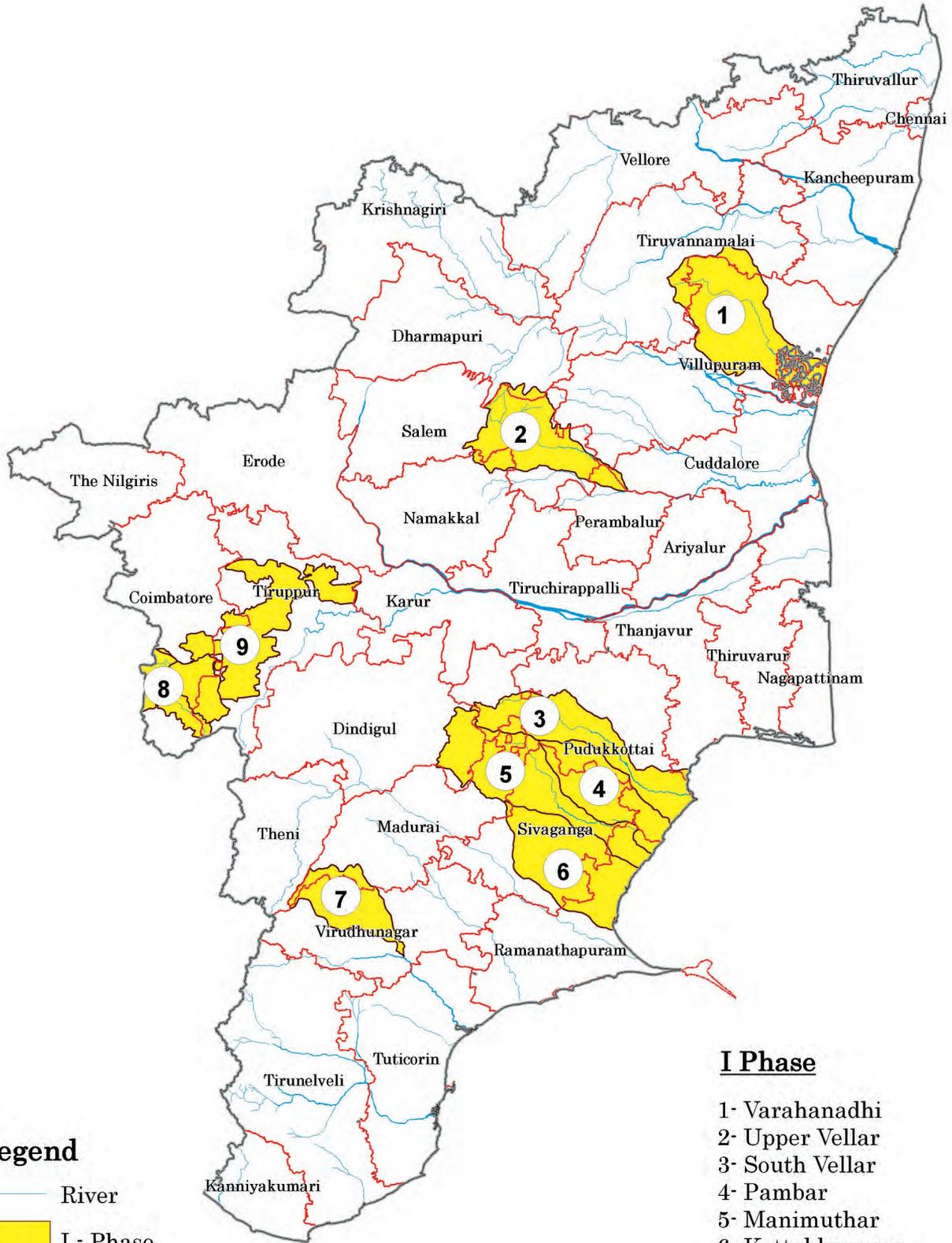
2. PROGRESS OF LINE DEPARTMENTS

2.1 WATER RESOURCES DEPARTMENT

Abstract for Phase I & II Sub basins

Sl.No.	Number of Sub Basin	Total No. of Packages	Total Estimate cost (Rs. in Lakhs)	Packages Taken up	Tanks (Nos.)		Anicuts (Nos.)		Supply Channels in KM		Expenditure (Rs. in Lakhs)	
					Proposed	Achieved	Proposed	Achieved	Proposed	Achieved	During the year (2009-10)	Up to date
1	Phase – I											
	9 Sub Basins	77	42581.80	76	1636	1112	252	212	3120.76	2764.25	18940.00	39672.02
2	Phase - II											
	16 Sub Basins	43	18445.78	43	764	154	171	56	1019.49	110.71	9874.18	10946.00
	Grand Total	120	61027.58	119	2400	1266	423	268	4140.25	2874.96	28814.18	50618.02

IAMWARM Project Selected Sub Basins - I Phase



Legend

- River
- I - Phase
- District Boundary
- State Boundary

I Phase

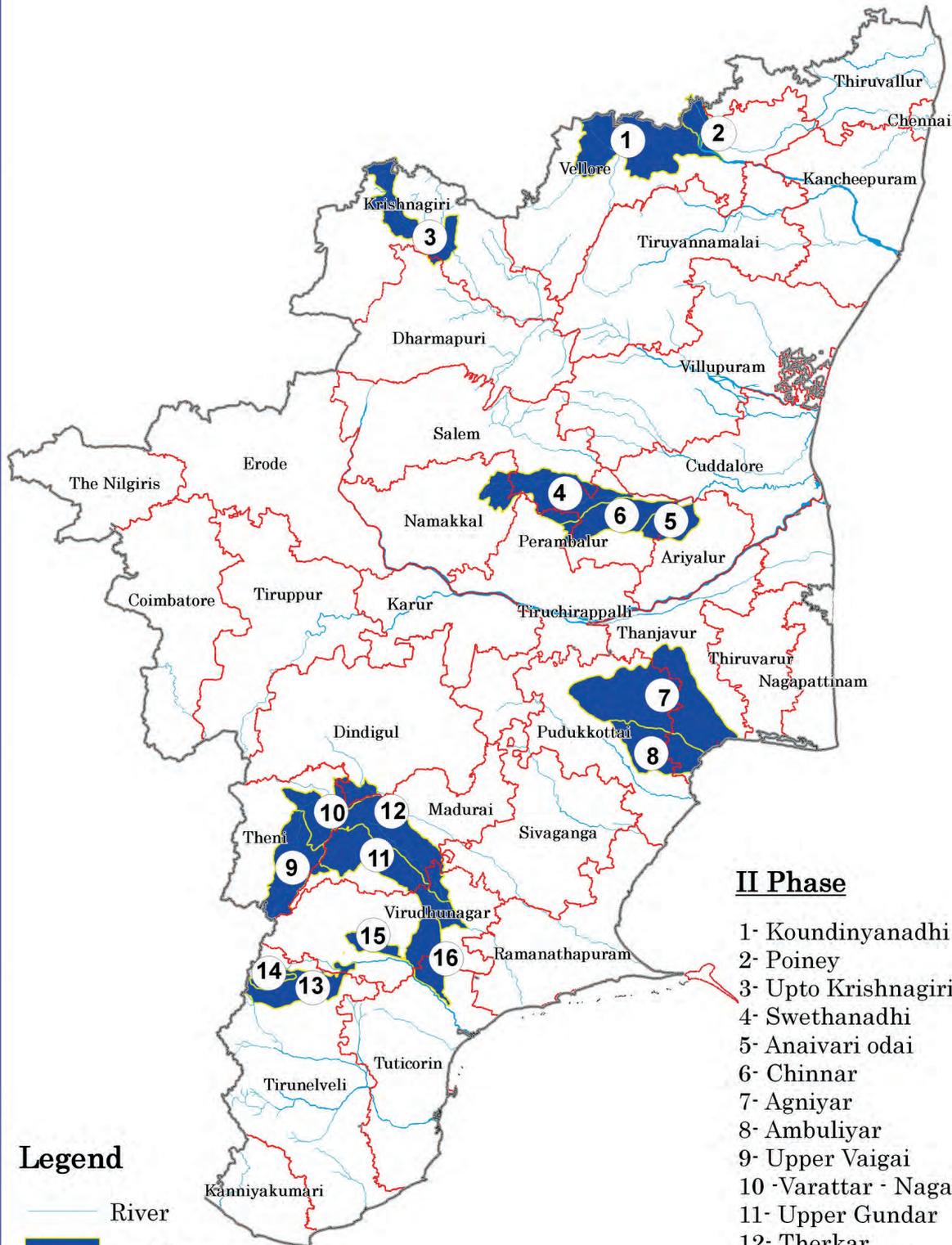
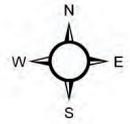
- 1- Varahanadhi
- 2- Upper Vellar
- 3- South Vellar
- 4- Pambar
- 5- Manimuthar
- 6- Kottakkarayar
- 7- Arjunanadhi
- 8- Aliyar
- 9- Palar

WATER RESOURCES DEPARTMENT

Phase – I Sub Basins

Sl. No.	Name of Sub Basin	Total No. of Packages	Total Estimate cost (Rs. in Lakhs)	Packages Taken up	Tanks (Nos.)		Anicuts (Nos.)		Supply Channels in KM		Expenditure (Rs. in Lakhs)	
					Proposed	Achieved	Proposed	Achieved	Proposed	Achieved	During the year (2009-10)	Up to date
1	Varahanadhi	12	2387.52	12	236	113	37	14	447.54	322.91	448.42	1308.91
2	Upper Vellar	3	2447.70	3	49	49	98	98	245	245	741.00	2938.69
3	South Vellar	7	6048.00	7	294	99	29	26	296.45	262.24	2314.84	5063.98
4	Pambar	7	5179.00	7	292	138	20	19	220.70	198.00	2113.12	4409.54
5	Manimuthar	8	5695.00	8	378	376	31	30	49.86	49.86	2966.77	6132.60
6	Kottakaraiyar	9	4300.90	9	310	302	7	7	199.54	182.66	1677.00	4533.72
7	Arjunanadhi	5	4543.00	4	77	35	30	18	127.21	85.66	2208.51	3301.30
8	Aliyar	4	1518.40	4	0	0	0	0	197.02	197.02	89.76	1549.02
9	Palar - I Year	12	5755.08	12	0	0	0	0	573.63	562.32	6380.58	10434.26
	II Year	10	4707.20	10	0	0	0	0	763.81	658.58		
	Total	77	42581.8	76	1636	1112	252	212	3120.76	2764.25	18940.00	39672.02

IAMWARM Project Selected Sub Basins - II Phase



II Phase

- 1- Koundinyanadhi
- 2- Poiney
- 3- Upto Krishnagiri(Ponniyar)
- 4- Swethanadhi
- 5- Anaivari odai
- 6- Chinnar
- 7- Agniyar
- 8- Ambuliyar
- 9- Upper Vaigai
- 10- Varattar - Nagalar
- 11- Upper Gundar
- 12- Therkar
- 13- Nichabanadhi
- 14- Kalingalar
- 15- Sindapalli Uppodai
- 16- Sinkottariyar

Legend

- River
- II - Phase
- District Boundary
- State Boundary

WATER RESOURCES DEPARTMENT

Phase – II Sub Basins

Sl. No	Name of Sub Basin	Total No. of Packages	Total Estimate cost (Rs. in Lakhs)	Packages Taken up	Tanks (Nos.)		Anicuts (Nos.)		Supply Channels in KM		Expenditure (Rs. in Lakhs)	
					Proposed	Achieved	Proposed	Achieved	Proposed	Achieved	During the year (2009-10)	Up to date
1	Poiney	5	2550.51	5	142	2	1	0	280.57	0	1137.41	1181.16
2	Koundinyanadhi	2	575.88	2	33	2	0	0	110.13	0	357.42	411.38
3	Pennaiyar upto Krishnagiri	2	682.84	2	6	3	12	0	36.24	0	244.87	381.66
4	Swethanadhi	4	895.00	4	17	0	33	4	73.80	53.50	400.00	403.98
5	Anaivari Odai	1	220.65	1	16	0	5	1	16.43	16.43	87.54	114.11
6	Chinnar	2	536.00	2	33	5	9	4	45.74	0	330.00	362.05
7	Agniyar	6	4486.00	6	183	0	20	0	285.80	0	1833.19	1943.19
8	Ambuliyar	4	2146.00	4	107	0	17	0	83.10	0	1275.00	1355.00
9	Upper Vaigai	1	201.00	1	10	10	4	4	2.05	2.05	160.95	200.95
10	Varattar Nagalar	1	157.00	1	7	7	10	10	0.83	0.83	125.99	156.00
11	Upper Gundar	3	865.00	3	22	18	22	22	37.09	5.29	783.19	787.05
12	Therkar	4	2268.40	4	107	107	11	11	21.95	21.95	1987.47	2163.26
13	Nichabanadhi	3	1376.00	3	40	0	17	0	8.65	5.05	461.55	505.39
14	Kalingalar	2	567.50	2	11	0	7	0	10.61	5.60	281.61	421.72
15	Sindapalli Uppodai	1	122.00	1	6	0	1	0	0.80	0	20.82	69.53
16	Sinkottaiyar	2	796.00	2	24	0	2	0	5.70	0	344.45	416.87
17	Cooum										42.72	72.70
	Total	43	18445.78	43	764	154	171	56	1019.49	110.70	9874.18	10946.00

IAMWARM PROJECT

Selected Sub Basins - III Phase



III Phase

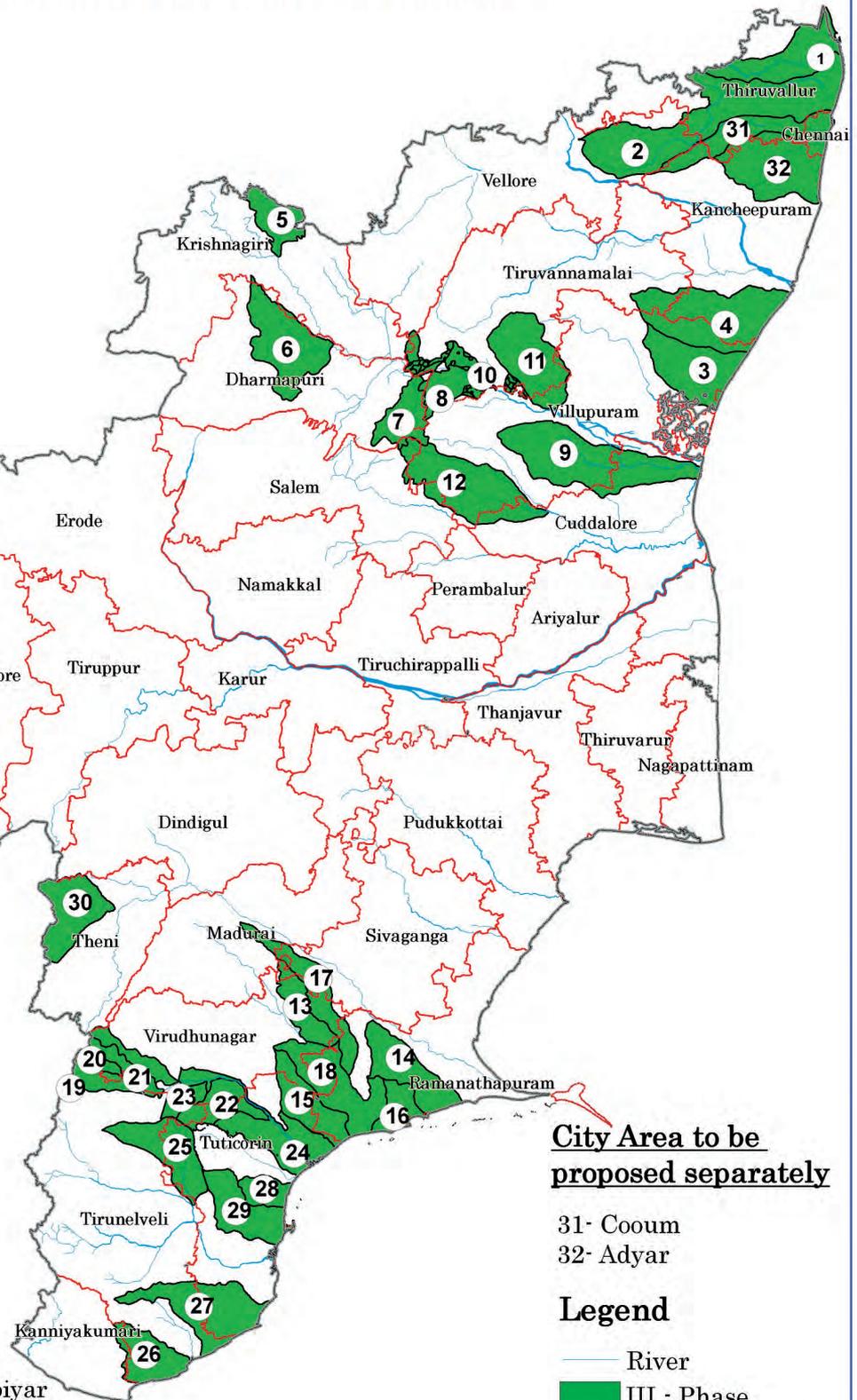
- 1- Araniyar
- 2- Kosasthalaiyar
- 3- Nallavur
- 4- Ongur
- 5- Markandanadhi
- 6- Kambainallur
- 7- Kovilar
- 8- Pambaran Verattar
- 9- Gadilam
- 10- Pambar to Tirukoilur
- 11- Thuringalar
- 12- Gomukinadhi
- 13- Kanal odai
- 14- Uthirakosamangai
- 15- Vembar
- 16- Palar
- 17- Girdhamal
- 18- Lower Gundar
- 19- Deviar
- 20- Nagarier
- 21- Sevalaperiyar
- 22- Uppathur
- 23- Vallampatti
- 24- Main River-Vaippar
- 25- Uppodai
- 26- Hanumannadhi-Nambiyar
- 27- Karumeniar
- 28- Salikulamer
- 29- Korampallam Ar.
- 30- Theniar

City Area to be proposed separately

- 31- Cooum
- 32- Adyar

Legend

- River
- III - Phase
- District Boundary
- State Boundary



WATER RESOURCES DEPARTMENT

Phase – III Sub Basins

Sl.No	Name of Sub Basin	Total No. of Packages	Total Estimate cost (Rs. in Lakhs)	Proposed Infrastructures		
				Tanks (Nos.)	Anicuts (Nos.)	Supply Channel (Km)
1	Araniyar	12	4941.37	163	2	256.07
2	Kosasthalaiyar	14	7670.17	262	0	497.75
3	Nallavur	5	1650.26	75	5	109.18
4	Ongur	12	2967.42	163	6	347.45
5	Markendeyanadhi	1	118.14	3	9	47.59
6	Kambainallur	4	951.20	21	60	59.94
7	Kovilar	1	67.20	0	2	7.79
8	Pambanar and Varattar	1	288.60	3	20	45.80
9	Gadilam	9	2734.88	86	13	262.65
10	Pambar to Thirukoilur	5	837.00	54	0	86.03
11	Thurinjalur	4	1058.31	70	26	171.21
12	Gomukhinadhi	5	1440.05	68	43	189.98
13	Kanalodai	3	871.88	44	0	12.61
14	Uthirakosamangaiyar	6	1983.14	109	0	104.45
15	Vembar	3	367.80	18	0	13.90
16	Palar	2	621.35	34	0	21.34
17	Girudhamal	9	3884.49	111	7	93.87
18	Lower Gundar	6	1331.54	61	3	18.17
19	Deviar	6	1558.90	50	5	90.25
20	Nagariar	2	355.07	8	7	8.50
21	Sevalaperiyar	1	287.24	17	3	4.52
22	Uppathurar	1	114.58	5	2	5.50
23	Vallampatti	1	110.14	5	1	0.00
24	Vaippar Main River	2	677.88	22	4	0.00
25	Uppodai	3	524.57	26	1	0.00
26	Hanumanadhi	5	1362.36	85	8	92.60
27	Karumeniyar	4	1165.87	88	15	87.23
28	Salikulamar	2	157.83	6	2	9.20
29	Koramapllam Aru	2	360.33	4	1	9.00
30	Theniar	1	642.50	11	11	17.73
Total		132	41102.07	1672	256	2670.31

2.2 AGRICULTURE DEPARTMENT

1. a. Phase I – Physical and Financial Progress during 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	SRI				Modified SRI				Maize			
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained
		Phy	Ach			Phy	Ach			Phy	Ach		
1	Varahanadhi	320	320	1612	200	-	-	-	-	30	30	72	30
2	Arjunanadhi	130	130	310	250	-	-	-	-	30	30	185	300
3	Upper Vellar	160	160	800	51	-	-	-	-	-	-	-	200
4	Kottakaraiyar	260	260	1300	53	200	200	0	-	50	50	0	125
5	Manimuthar	420	420	2100	85	-	-	-	-	100	100	0	129
6	Pambar	450	450	256	40	200	200	0	-	40	40	480	48
7	South Vellar	675	675	810	140	-	-	-	-	20	20	100	48
8	Palar (CBE)	-	-	-	-	-	-	-	-	-	-	-	1200
	Palar (Erode)	-	-	-	-	-	-	-	-	-	-	-	194
9	Aliyar	110	110	112	200	-	-	-	-	-	-	-	200
	IAMWARM Cell	-	-	-	-	-	-	-	-	-	-	-	-
	Total	2525	2525	7300	1019	400	400	0	-	270	270	837	2474

AGRICULTURE DEPARTMENT

1. a. Phase I – Physical and Financial Progress during 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	Pulses				Groundnut & Others				Grand Total				Financial (L. Rs.)	
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Tar.	Achmt.
		Phy	Ach			Phy	Ach			Phy	Ach				
1	Varahanadhi	400	400	2050	-	400	400	3912	25	1150	1150	7646	255	78.921	69.393
2	Arjunanadhi	50	50	143	55	-	-	-	-	210	210	638	605	21.245	21.234
3	Upper Vellar	60	60	300	40	-	-	-	-	220	220	1100	291	23.590	23.590
4	Kottakaraiyar	-	-	-	21	-	-	-	-	510	510	1300	199	52.370	51.837
5	Manimuthar	-	-	-	26	80	80	0	-	600	600	2100	240	60.570	60.358
6	Pambar	-	-	-	60	-	-	-	80	690	690	736	228	76.335	75.991
7	South Vellar	400	400	300	150	-	-	-	120	1095	1095	1210	458	96.949	96.448
8	Palar (CBE)	100	100	100	250	175	175	0	200	275	275	100	1650	18.125	17.342
	Palar (Erode)	17	17	20	-	5	5	15	-	22	22	35	194	3.459	3.459
9	Aliyar	30	30	0	-	-	-	-	50	140	140	112	450	15.565	13.407
	IAMWARM Cell	-	-	-	-	-	-	-	-	-	-	-	-	3.000	1.358
	Total	1057	1057	2913	602	660	660	3927	475	4912	4912	14977	4570	450.129	434.417

AGRICULTURE DEPARTMENT

1. b. Phase II – Physical and Financial Progress during 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	SRI				Maize				Pulses			
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained
		Phy	Ach			Phy	Ach			Phy	Ach		
1	Pennaiyar	150	150	579	80	-	-	-	-	-	-	-	-
2	Swethanadhi	20	20	100	15	50	50	500	75	12	12	120	10
3	Anaivari Odai	30	30	160	20	5	5	0	5	25	25	0	15
4	Chinnar	95	95	500	60	10	10	0	15	25	25	0	20
5	Agniyar	320	320	256	150	20	20	25	80	170	170	150	105
6	Ambuliyar	180	180	180	120	10	10	0	22	70	70	250	62
7	Upper Vaigai	10	10	70	10	5	5	50	5	40	40	150	15
8	Varattar-Nagalar	-	-	-	-	10	10	100	10	25	25	100	10
9	Nichabanadhi	75	75	375	50	30	30	300	30	35	35	175	30
10	Kalingalar	60	60	300	30	10	10	100	10	25	25	125	30
11	Sindapalli Uppodai	5	5	15	5	5	5	50	5	10	10	50	5
12	Senkottaiyar	10	10	0	5	10	10	0	15	40	40	0	20
13	Upper Gundar	130	130	560	80	-	-	-	-	60	60	309	40
14	Thekar	300	300	1020	200	-	-	-	-	100	100	364	40
15	Poiney	125	125	44	70	20	20	50	50	175	175	7	70
16	Koundinyanadhi	50	50	5	20	10	10	10	20	60	60	20	30
Total		1560	1560	4164	915	195	195	1185	342	872	872	1820	502

AGRICULTURE DEPARTMENT

1. b. Phase II – Physical and Financial Progress during 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	Groundnut & Others				Grand Total				Financial (L. Rs.)	
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Tar.	Achmt.
		Phy	Ach			Phy	Ach				
1	Pennaiyar	50	50	999	100	200	200	1578	180	20.785	20.785
2	Swethanadhi	10	10	100	27	92	92	820	127	8.174	8.131
3	Anaivari Odai	5	5	0	5	65	65	160	45	6.045	5.237
4	Chinnar	-	-	-	-	130	130	500	95	14.158	12.091
5	Agniyar	25	25	100	75	535	535	531	410	50.895	50.895
6	Ambuliyar	10	10	0	50	270	270	430	254	26.470	26.440
7	Upper Vaigai	-	-	-	-	55	55	270	30	4.670	4.634
8	Varattar-Nagalar	-	-	-	-	35	35	200	20	3.280	3.170
9	Nichabanadhi	-	-	-	-	140	140	850	110	13.798	13.798
10	Kalingalar	-	-	-	-	95	95	525	70	9.480	9.480
11	Sindapalli Uppodai	-	-	-	-	20	20	115	15	3.138	3.137
12	Senkottaiyar	-	-	-	-	60	60	0	40	6.245	6.170
13	Upper Gundar	-	-	-	-	190	190	869	120	20.155	20.154
14	Thekar	-	-	-	-	400	400	1384	240	41.570	41.564
15	Poiney	50	50	10	125	370	370	111	315	27.893	27.893
16	Koundinyanadhi	20	20	15	40	140	140	50	110	13.075	13.041
	Total	170	170	1224	422	2797	2797	8393	2181	269.829	266.620

AGRICULTURE DEPARTMENT

2. a. Phase I – Project Physical and Financial Progress upto 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	Paddy (Tech.)				SRI				Modified SRI				Maize			
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained
		Phy	Ach							Phy	Ach						
1	Varahanadhi	-	-	-	-	520	520	3037	200	-	-	-	-	138	138	1177	108
2	Arjunanadhi	-	-	-	-	960	960	5960	830	-	-	-	-	818	818	7545	788
3	Upper Vellar	328	328	2296	328	283	283	1679	123	-	-	-	-	701	701	7010	701
4	Kottakaraiyar	500	500	3500	500	313	313	1762	53	200	200	0	-	783	783	2175	733
5	Manimuthar	750	750	5250	750	505	505	2800	85	-	-	-	-	749	749	3250	649
6	Pambar	230	230	1610	230	510	510	649	60	200	200	0	-	904	904	8920	864
7	South Vellar	1161	1161	8127	1161	1055	1055	3250	380	-	-	-	-	168	168	1530	148
8	Palar (CBE)	-	-	-	-	-	-	-	-	-	-	-	-	1828	1828	17567	1828
	Palar (Erode)	-	-	-	-	-	-	-	-	-	-	-	-	338	338	3380	338
9	Aliyar	-	-	-	-	310	310	1110	200	-	-	-	-	200	200	1980	200
	IAMWARM Cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	2969	2969	20783	2969	4456	4456	20247	1931	400	400	0	-	6627	6627	54534	6357

AGRICULTURE DEPARTMENT

2. a. Phase I – Project Physical and Financial Progress upto 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	Pulses				Groundnut & Others				Grand Total				Financial (L. Rs.)	
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Tar.	Achmt.
		Phy	Ach			Phy	Ach			Phy	Ach				
1	Varahanadhi	400	400	2050	-	425	425	4162	25	1483	1483	10426	333	107.972	98.381
2	Arjunanadhi	467	467	4228	417	369	369	3683	286	2614	2614	21416	2321	86.939	84.118
3	Upper Vellar	200	200	1700	140	85	85	850	85	1597	1597	13535	1377	77.508	77.506
4	Kottakaraiyar	766	766	2356	766	146	146	1460	146	2708	2708	11253	2198	100.672	93.949
5	Manimuthar	866	866	4275	866	180	180	1000	100	3050	3050	16575	2450	113.505	110.499
6	Pambar	1065	1065	3219	1065	305	305	3700	305	3214	3214	18098	2524	140.231	137.114
7	South Vellar	1425	1425	4510	1025	433	433	4225	433	4242	4242	21642	3147	192.640	187.230
8	Palar (CBE)	350	350	2588	250	499	499	3292	399	2752	2752	23447	2477	220.107	216.189
	Palar (Erode)	21	21	60	4	5	5	15	-	364	364	3455	342	35.758	35.119
9	Aliyar	30	30	0	-	73	73	645	73	613	613	3735	473	73.937	68.794
	IAMWARM Cell	-	-	-	-	-	-	-	-	-	-	-	-	13.000	4.602
	Total	5590	5590	24986	4533	2595	2595	23032	1852	22637	22637	143582	17642	1162.269	1113.500

AGRICULTURE DEPARTMENT

2.b. Phase II – Project Physical and Financial Progress upto 2009-10

(Area in Ha.)

Sl. No.	Sub-basins	SRI				Maize				Pulses			
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained
		Phy	Ach			Phy	Ach			Phy	Ach		
1	Pennaiyar	230	230	1139	80	-	-	-	-	-	-	-	-
2	Swethanadhi	35	35	250	15	125	125	1250	75	22	22	220	10
3	Anaivari Odai	50	50	300	20	10	10	50	5	40	40	150	15
4	Chinnar	155	155	923	60	25	25	150	15	45	45	200	20
5	Agniyar	470	470	1244	150	100	100	815	80	275	275	1180	105
6	Ambuliyar	300	300	1020	120	32	32	220	22	132	132	855	62
7	Upper Vaigai	20	20	135	10	10	10	90	5	55	55	295	15
8	Varattar-Nagalar	-	-	-	-	20	20	190	10	35	35	200	10
9	Nichabanadhi	125	125	687	50	60	60	600	30	65	65	470	30
10	Kalingalar	90	90	496	30	20	20	400	10	55	55	425	30
11	Sindapalli Uppodai	10	10	50	5	10	10	100	5	15	15	80	5
12	Senkottaiyar	15	15	35	5	25	25	200	15	60	60	190	20
13	Upper Gundar	210	210	1120	80	-	-	-	-	100	100	694	40
14	Thekar	500	500	2420	200	-	-	-	-	140	140	754	40
15	Poiney	195	195	490	70	70	70	500	50	245	245	700	70
16	Koundinyanadhi	70	70	140	20	30	30	200	20	90	90	300	30
	Total	2475	2475	10449	915	537	537	4765	342	1374	1374	6713	502

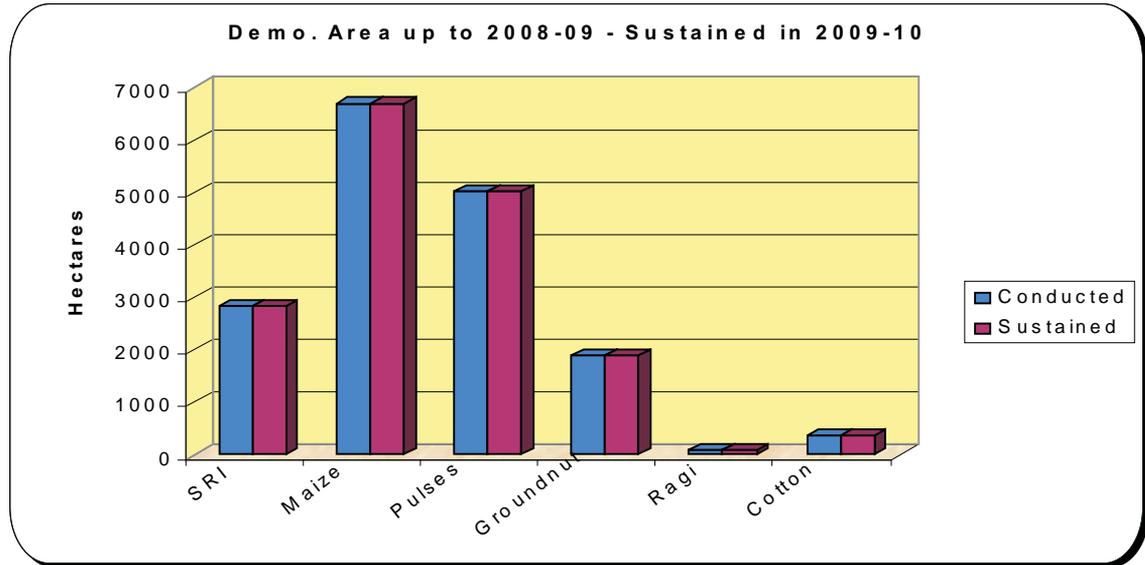
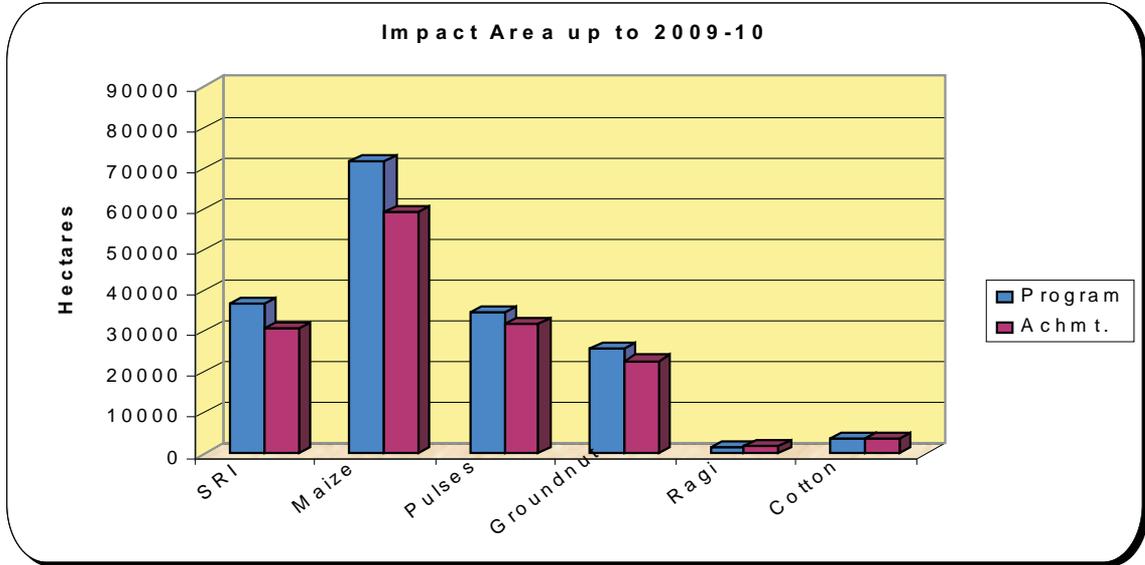
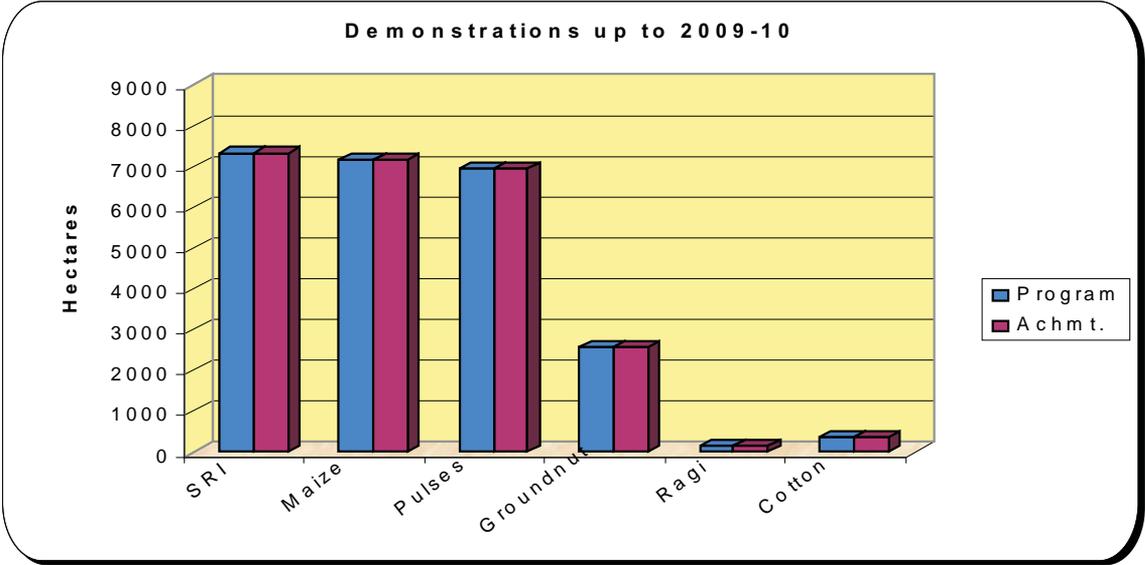
AGRICULTURE DEPARTMENT

2.b. Phase II – Project Physical and Financial Progress upto 2009-10

(Area in Ha.)

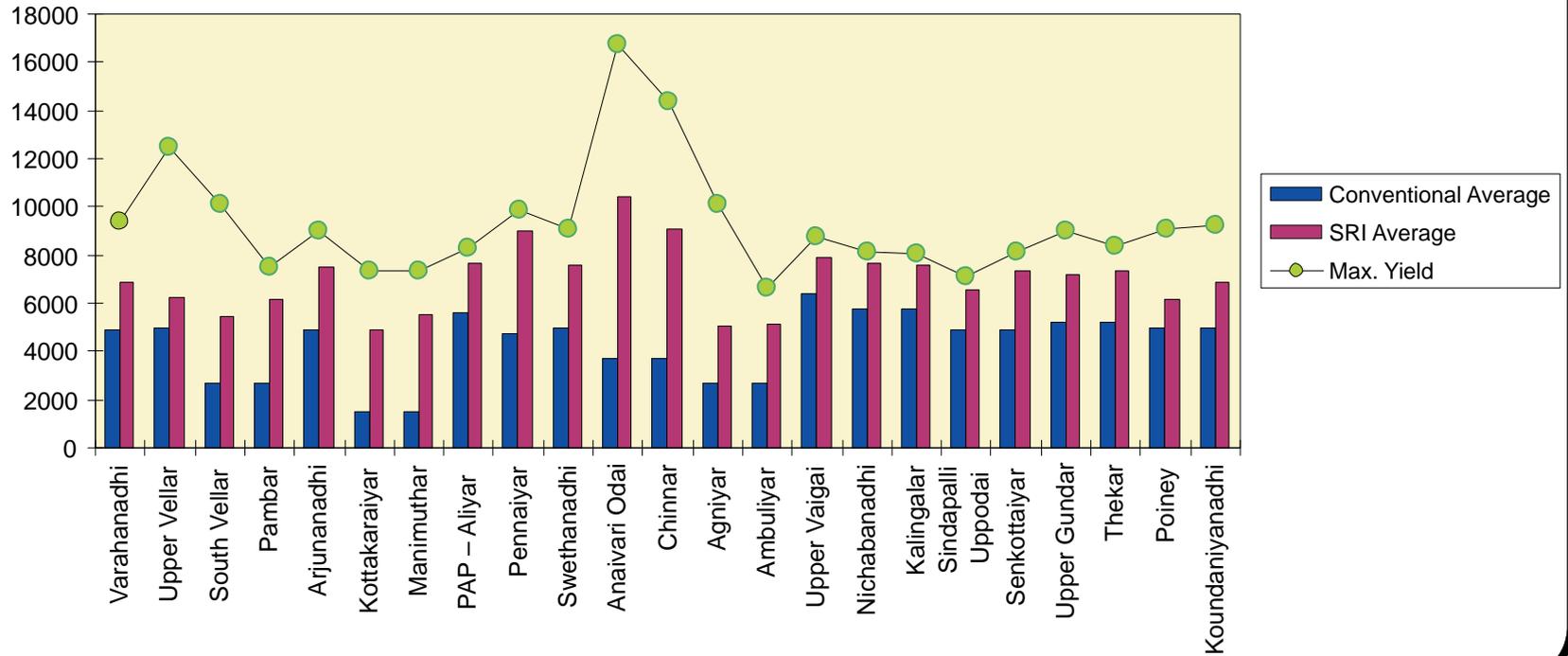
Sl. No.	Sub-basins	Groundnut & Others				Grand Total				Financial (L. Rs.)	
		Crop Demo.		Impact	Demo Sustained	Crop Demo.		Impact	Demo Sustained	Tar.	Achmt.
		Phy	Ach			Phy	Ach				
1	Pennaiyar	150	150	1989	100	380	380	3128	180	31.035	31.027
2	Swethanadhi	37	37	370	27	219	219	2090	127	15.036	14.994
3	Anaivari Odai	10	10	50	5	110	110	550	45	9.120	8.143
4	Chinnar	-	-	-	-	225	225	1273	95	21.158	18.676
5	Agniyar	100	100	845	75	945	945	4084	410	75.445	75.295
6	Ambuliyar	60	60	490	50	524	524	2585	254	41.850	41.820
7	Upper Vaigai	-	-	-	-	85	85	520	30	6.570	6.533
8	Varattar-Nagalar	-	-	-	-	55	55	390	20	4.480	4.364
9	Nichabanadhi	-	-	-	-	250	250	1757	110	20.973	20.973
10	Kalingalar	-	-	-	-	165	165	1321	70	13.905	13.904
11	Sindapalli Uppodai	-	-	-	-	35	35	230	15	4.351	4.321
12	Senkottaiyar	-	-	-	-	100	100	425	40	8.433	8.357
13	Upper Gundar	-	-	-	-	310	310	1814	120	28.805	28.804
14	Thekar	-	-	-	-	640	640	3174	240	60.720	60.714
15	Poiney	175	175	1250	125	685	685	2940	315	44.018	43.853
16	Koundinyanadhi	60	60	400	40	250	250	1040	110	18.725	18.616
	Total	592	592	5394	422	4978	4978	27321	2181	404.622	400.394

AGRICULTURE DEPARTMENT



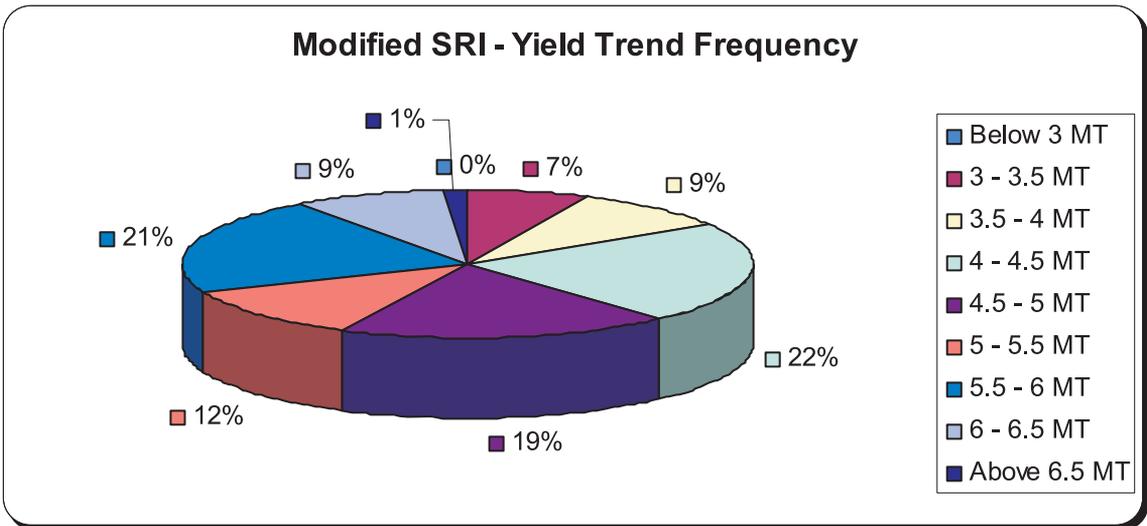
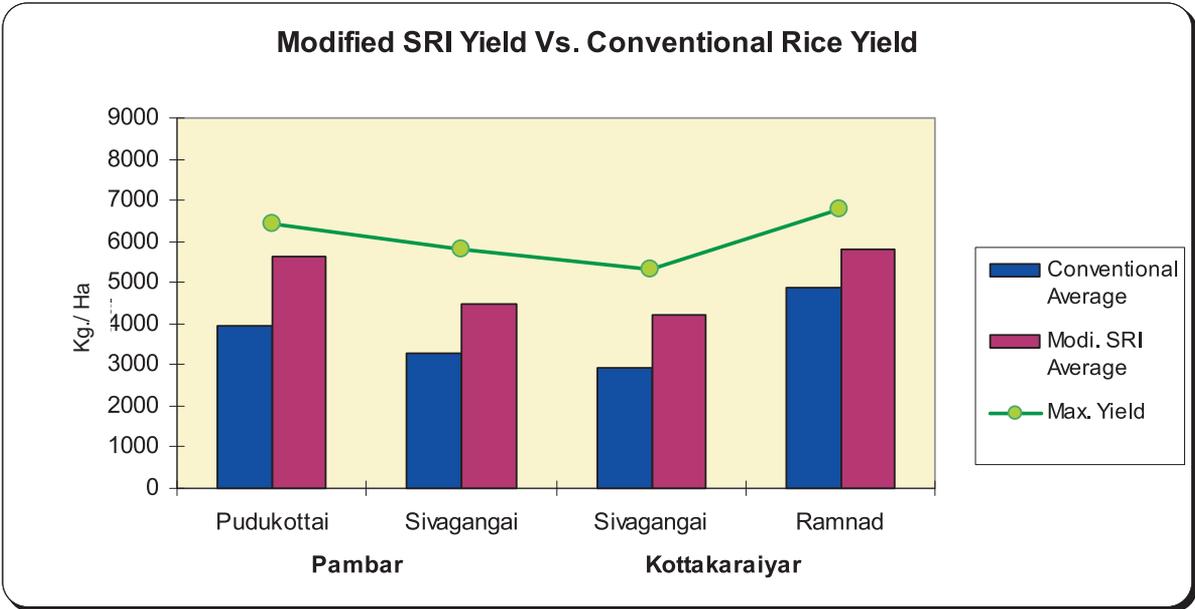
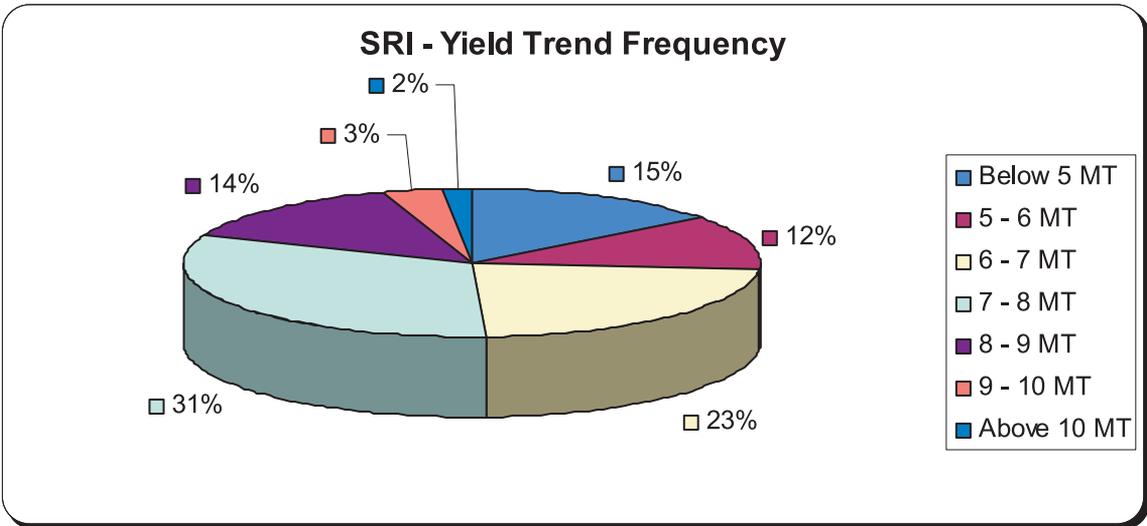
AGRICULTURE DEPARTMENT

SRI Yield Vs. Conventional Rice Yield



AGRICULTURE DEPARTMENT

Yield Analysis



2.3 TAMIL NADU AGRICULTURAL UNIVERSITY

Yearly Progress Report for Phase I (2009 - 10) III year

(Area in Ha)

Sl. No.	Sub Basin	SRI			Maize			Rice Fallow Pulses			Others			Precision Farming			Production technology for thronless bamboo			Intercropping of cocoa in coconut			Casurina Saucer Planting method		
		Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp
1	Varahanadhi	575	575	2015	47	47	470	530	530	2650	288	288	2880	-	-	-	-	-	-	-	-	-	-	-	-
2	Upper Vellar	1500	1500	-	-	-	-	50	50	250	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-
3	South Vellar	220	220	1100	55	55	550	405	405	1140	35	35	350	75	-	-	-	-	-	-	-	-	-	-	
4	Pambar	190	190	-	50	50	-	213	213	235	-	-	-	-	-	-	-	-	-	-	-	-	77	77	-
5	Manimuthar	92	92	249	50	50	126	83	83	-	-	-	-	30	30	-	-	-	-	-	-	-	-	-	
6	Kotakaraiyar	55	55	95	62	40	10	50	41	20	-	-	-	25	-	-	-	-	-	-	-	-	-	-	
7	Arjunanadhi	275	275	750	30	30	150	395	395	625	150	150	1500	12	-	60	-	-	-	-	-	-	-	-	
8	Aliyar	110	110	750	-	-	-	100	100	700	-	-	-	200	-	-	-	-	-	-	-	-	-	-	
9	Palar	-	-	-	-	-	-	40	40	200	-	-	-	100	-	-	-	-	-	-	-	-	-	-	
	Total	3017	3017	4959	294	272	1306	1866	1857	5820	473	473	4730	542	30	60	-	-	-	-	-	-	77	77	-

TAMIL NADU AGRICULTURAL UNIVERSITY

Cumulative Project Total and Yearly Progress Report for Phase I (2007 - 08, 2008 - 09 & 2009 - 10) I, II & III year

(Area in Ha)

Sl. No.	Sub Basin	SRI			Maize			Rice Fallow Pulses			Others			Precision Farming			Production technology for thronless bamboo			Casuarina saucer planting		
		Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp
1	Varahanadhi	1575	1575	3568	150	150	1190	1286	1286	3210	500	500	3970	-	-	-	40	40	25	-	-	-
2	Upper Vellar	2000	2000	2650	110	110	700	825	825	2350	270	270	1650	485	32	-	-	-	-	-	-	-
3	South Vellar	520	520	2995	160	160	1250	895	895	3302	81	81	810	125	-	-	-	-	-	-	-	-
4	Pambar	415	415	1275	109	109	20	700	700	1910	50	50	500	-	-	-	-	-	-	220	200	-
5	Manimuthar	309	309	1474	100	100	126	288	288	-	96	96	290	81	51	-	-	-	-	-	-	-
6	Kotakaraiyar	125	125	118	150	128	63	120	111	20	50	50	90	127	44	-	-	-	-	-	-	-
7	Arjunanadhi	775	775	2729	150	150	856	745	745	875	370	370	2750	34	4	60	-	-	-	-	-	-
8	Aliyar	410	410	2096	-	-	-	370	370	1070	96	96	522	550	253	-	-	-	-	-	-	-
9	Palar	-	-	-	35	35	600	240	240	1200	235	235	1430	845	545	-	-	-	-	-	-	-
Total		6129	6129	16905	964	942	4805	5469	5460	13937	1748	1748	12012	2247	929	60	40	40	25	220	200	0

TAMIL NADU AGRICULTURAL UNIVERSITY

Yearly Progress Report for Phase II (2009 - 10) II year

(Area in Ha.)

Sl. No.	Sub Basin	SRI			Maize			Rice Fallow Pulses			Others			Precision Farming			Model village and organic farming		
		Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp
1	Agniyar	315	315	315	75	75	242	285	285	856	50	50	420	-	-	-	-	-	-
2	Ambuliyar	110	110	480	20	20	148	150	150	1265	25	25	123	10	-	-	-	-	-
3	Chinnar	55	55	275	-	-	-	50	50	250	55	55	600	-	-	-	10	10	-
4	Anaivari Odai	33	33	165	-	-	-	30	30	150	-	-	-	10	-	-	-	-	-
5	Nichaba Nadhi	77	77	75	15	15	40	70	30	-	65	35	70	-	-	-	10	10	-
6	Kalingalar	66	66	-	-	-	-	60	-	-	30	20	-	-	-	-	-	-	-
7	Senkottaiyar	2	2	-	-	-	-	30	30	-	-	-	-	-	-	-	-	20	-
8	Therkar	110	110	100	-	-	-	100	-	-	10	9	-	45	25	-	10	10	-
9	Upper Gundar	44	44	-	-	-	-	40	40	-	-	-	-	5	-	-	10	10	-
10	Poiny	121	121	605	25	25	250	145	145	725	70	70	700	25	25	-	-	-	-
11	Koundinya Nadhi	44	44	145	25	25	150	90	90	130	-	-	-	20	-	-	-	-	-
12	Varattar Nagalar	-	-	-	-	-	-	-	-	-	-	-	-	10	10	-	-	-	-
13	Upper Vaigai	-	-	-	20	10	100	20	-	-	-	-	-	20	20	-	-	-	-
14	Swetha Nadhi	200	200	0	-	-	-	-	-	-	-	-	-	90	-	-	-	-	-
15	Pennaiyar upto Krishnagiri	28	28	140	-	-	-	25	25	125	-	-	-	50	14	-	-	-	-
	Total	1205	1205	2300	180	170	930	1095	875	3501	305	264	1913	285	94	0	40	60	0

TAMIL NADU AGRICULTURAL UNIVERSITY

Cumulative Project Total and Yearly Progress Report for Phase II Sub basins

(Area in Ha.)

Sl. No.	Sub Basin	SRI			Maize			Rice Fallow Pulses			Others			Precision Farming			Production technology for thronless bamboo			Intercropping of cocoa in coconut		
		Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp	Tar	Ach	Imp
1	Agniyar	415	415	595	75	75	242	385	385	1266	50	50	420	-	-	-	25	25	-	300	242	-
2	Ambuliyar	210	210	1180	50	50	448	300	300	2765	50	50	239	20	10	50	25	25	50	50	50	100
3	Chinnar	105	105	545	-	-	-	100	100	350	125	125	750	-	-	-	-	-	-	-	-	-
4	Anaivari Odai	63	63	319	-	-	-	60	60	150	-	-	-	20	-	-	-	-	-	-	-	-
5	Nichaba Nadhi	157	157	95	45	45	70	160	120	-	105	75	110	15	-	-	-	-	-	-	-	-
6	Kalingalar	106	106	-	20	20	-	110	50	-	60	50	130	-	-	-	-	-	-	-	-	-
7	Sindapalli Uppodai	5	5	4	-	-	-	5	5	2	-	-	-	-	-	-	-	-	-	-	-	-
8	Senkottaiyar	12	12	-	25	25	-	65	65	-	15	15	-	-	-	-	-	-	-	-	-	-
9	Therkar	210	210	137	-	-	-	200	100	-	10	9	-	70	50	-	-	-	-	-	-	-
10	Upper Gundar	74	74	-	15	15	150	70	70	50	30	30	200	12	6	-	-	-	-	-	-	-
11	Poiny	281	281	855	45	45	270	355	355	995	140	140	1160	50	31	-	-	-	-	-	-	-
12	Koundinya Nadhi	84	84	395	45	45	350	143	143	360	70	70	144	36	16	-	-	-	-	-	-	-
13	Varattar Nagalar	-	-	-	20	20	200	-	-	-	-	-	-	19	19	-	-	-	-	-	-	-
14	Upper Vaigai	-	-	-	20	10	100	20	-	-	-	-	-	35	29	-	-	-	-	-	-	-
15	Swetha Nadhi	225	225	175	-	-	-	25	25	250	71	71	710	95	2	25	-	-	-	-	-	-
16	Pennaiyar upto Krishnagiri	38	38	153	-	-	-	35	35	125	-	-	-	90	28	-	-	-	-	-	-	-
	Total	1985	1985	4453	360	350	1830	2033	1813	6313	726	685	3863	462	191	75	50	50	50	350	292	100

TAMIL NADU AGRICULTURAL UNIVERSITY

Yearly progress activity in I & II phase sub basins

(Area in Ha)

Sl. No.	Name of the Component	Cumulative total of Phase I				Cumulative total of Phase II				Total (Phase I + Phase II)			
		Demo		Impact		Demo		Impact		Demo		Impact	
		Target	Achmt	Target	Achmt	Target	Achmt	Target	Achmt	Target	Achmt	Target	Achmt
1	SRI	6129	6129	42769	16905	1985	1985	13895	4453	8114	8114	56664	21357
2	Maize	964	942	9640	4805	360	350	3600	1830	1324	1292	13240	6635
3	Pulses	5469	5460	55450	13937	2033	1813	20330	6313	7502	7273	75780	20250
4	Other field crops	1748	1748	17766	12012	726	685	6965	3863	2474	2433	24731	15875
5	Precision farming	2247	929	12310	60	462	191	2250	75	2709	1120	14560	135
6	Intercropping of cocoa in coconut	400	200	800	0	350	292	700	100	750	492	1500	100
7	Thornless Bamboo	40	40	80	25	50	50	100	50	90	90	180	75
	Total	16997	15448	138815	47743	5966	5366	47840	16684	22963	20814	186655	64427

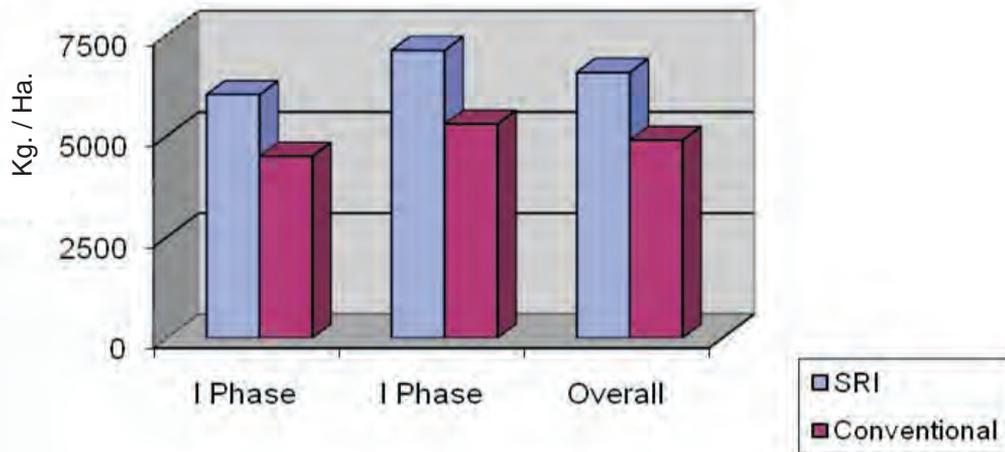
BASIN WISE YIELD DATA

SRI

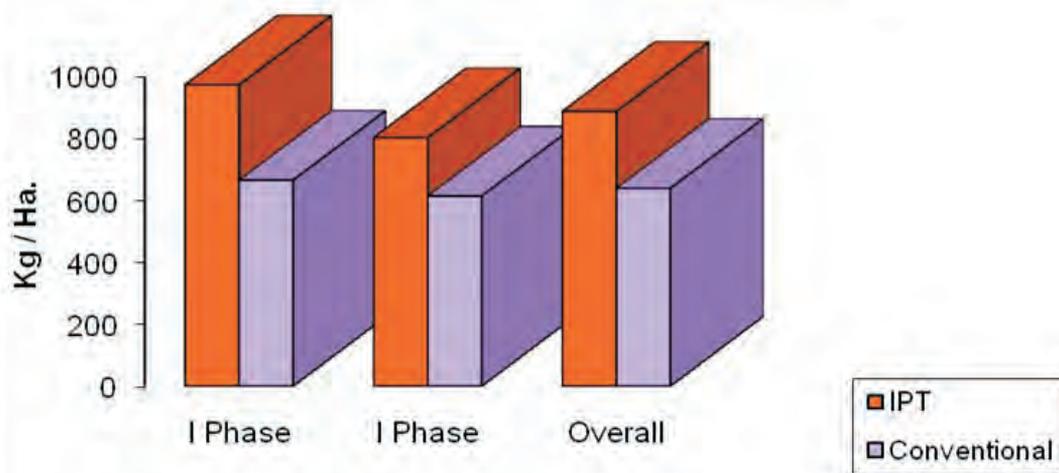
Sub basins	Yield (Kg ha ⁻¹)		% increase over conventional
	SRI	Conventional	
Phase I			
Varaghanadhi	6400	4571	40.0
Upper Vellar	6546	3646	79.5
South Vellar	5281	4006	31.8
Pambar	5359	3983	34.5
Manimuthar	5877	4663	26.0
Kotakkaraiyar	5996	4970	20.6
Arjunanadhi	6326	5163	22.5
Aliyar	6325	4940	28.0
Average	6014	4493	33.9
Phase II			
Pennaiyar	6679	4146	61.1
Agniyar	6491	4932	31.6
Ambuliyar	4614	3170	45.6
Anaivari Odai	9400	7900	19.0
Chinnar	9150	7700	18.8
Sindapalli uppodai	6330	4000	58.3
Kalingalar	6373	5646	12.9
Swethanadhi	6330	4000	58.3
Nichabanadhi	9744	7673	27.0
Upper Gundar	6925	4567	51.6
Senkottaiyar	5920	4978	18.9
Therkar	6218	5800	7.2
Poiney	7288	4600	58.4
Koundinyanadhi	8046	4909	63.9
Average	7108	5287	34.4
Over all (average)	6561	4890	34.1

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Yield Increase - SRI Vs Conventional Method



Impact of IPT on Yield - Gardenland Pulses

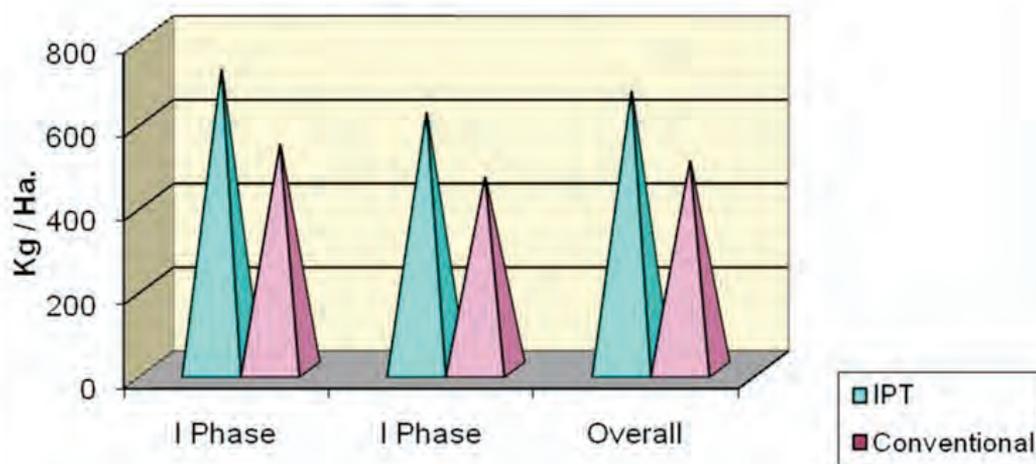


More Income Per Drop of Water

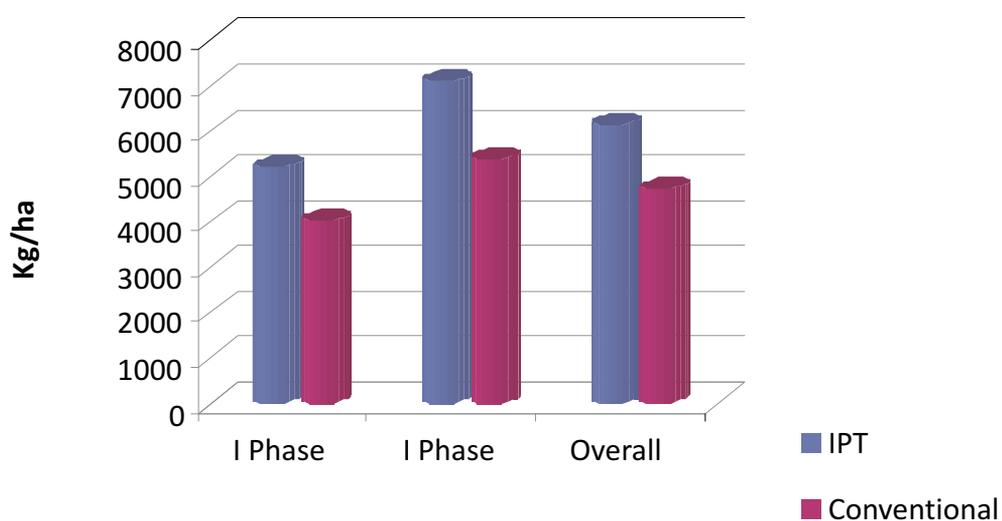


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Impact of IPT on Yield - Ricefallow Pulses



Impact of IPT on Yield - Maize



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Financial Progress upto 31.03.2010

Rs. in Lakhs

Sl.No.	Sub Basin Name	2007-08	2008-09	2009-10	Cummulative Expr. Upto 31.3.2010
Phase - I					
1	Varahanadhi	70.41	91.97	66.78	229.16
2	Upper Vellar	78.07	104.49	101.59	284.15
3	South Vellar	27.00	57.31	52.74	137.05
4	Pambar	33.07	48.30	32.63	114
5	Manimuthar	22.30	50.98	27.77	101.05
6	Kottakaraiyar	23.71	34.33	52.10	110.14
7	Arjunanadhi	49.01	50.74	49.10	148.85
8	Aliyar & E-valanmai *	66.53	113.57	105.01	285.11
9	Palar & E-Valanmai **	40.48	122.62	237.89	400.99
10	IAMWARM Cell +SRI	14.19	15.97	4.10	34.26
Sub Total		424.77	690.28	729.71	1844.76
Phase - II					
1	Ponnaiyar	0	22.86	24	46.86
2	Agniyar	0	67.25	42.91	110.16
3	Ambuliyar	0	45.22	23.71	68.93
4	Anaivarai Odai	0	7.20	4.55	11.75
5	Chinnar	0	17.07	13.34	30.41
6	Swethanadhi	0	19.02	11.22	30.24
7	Kallingalar	0	17.30	9.36	26.66
8	Sindapalli Uppodai	0	2.23	0.89	3.12
9	Nichabanadhi	0	26.69	18.53	45.22
10	Sinkottaiyar	0	5.71	3.46	9.17
11	Therkar	0	36.81	19.53	56.34
12	Upper Gundar	0	14.34	9.73	24.07
13	Upper Vaigai	0	9.49	8.36	17.85
14	Varattar Nagalar	0	8.94	2.15	11.09
15	Poiney	0	44.27	30.24	74.51
16	Koundanyanadhi	0	30.25	10.91	41.16
Sub-Total		0	374.65	232.89	607.54
G.Total		424.77	1064.93	962.60	2452.30

2.4 HORTICULTURE DEPARTMENT

Phase I - Physical and Financial Progress (2009-10)

Sl. No.	Sub-basins	Crops (Ha.)														2nd year Maintenance (Ha.)						Grand Total		Expenditure upto 03/2010 (L. Rs.)		
		Fruits		Vegetables		Flowers		Spices		Medicinal		Plantation		Total		Fruits		Plantation Crops		Total						
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach			
1	Varahanadhi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	0	0	55	55	55	55	5.820	
2	Upper Vellar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.550
3	South Vellar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	150	0	0	150	150	150	150	8.015	
4	Pambar	45	45	275	275	0	0	60	60	0	0	100	100	480	480	150	150	0	0	150	150	630	630	67.810		
5	Manimuthar	50	23	42	42	0	0	100	100	0	0	0	0	192	165	80	80	0	0	80	80	272	245	28.300		
6	Kottakaraiyar	20	20	285	285	0	0	300	300	0	0	0	0	605	605	80	80	0	0	80	80	685	685	88.290		
7	Arjunanadhi	50	50	30	30	12	12	40	40	16	16	0	0	148	148	55	55	0	0	55	55	203	203	28.962		
8	Aliyar	25	25	30	30	0	0	0	0	0	0	100	100	155	155	0	0	407	407	407	407	562	562	28.960		
9	Palar - CBE & Erode	100	70	965	910	0	0	50	50	0	0	0	10	1115	1040	60	39	0	12	60	51	1175	1091	158.400		
	IAMWARM Cell																								12.197	
	Total	290	233	1627	1572	12	12	550	550	16	16	200	210	2695	2593	630	609	407	419	1037	1028	3732	3621	427.304		

HORTICULTURE DEPARTMENT

Phase I - Physical and Financial Progress (Project Total - up to 2009-10)

Sl. No.	Sub-basins	Crops (Ha.)														2nd year Maintenance (Ha.)						Grand Total		Expenditure upto 03/2010 (L. Rs.)
		Fruits		Vegetables		Flowers		Spices		Medicinal		Plantation		Total		Fruits		Plantation Crops		Total				
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	
1	Varahanadhi	415	320	1021	1014	142	145	72	59	0	0	250	360	1900	1898	155	165	0	0	155	165	2055	2063	285.163
2	Upper Vellar	49	49	755	770	0	0	250	250	30	0	20	40	1104	1109	0	0	20	20	20	20	1124	1129	155.840
3	South Vellar	300	325	800	800	0	0	200	200	0	0	400	300	1700	1625	200	200	0	0	200	200	1900	1825	224.984
4	Pambar	395	365	775	915	0	0	210	175	0	0	500	400	1880	1855	200	200	0	0	200	200	2080	2055	241.244
5	Manimuthar	250	228	587	602	0	0	545	520	0	0	0	0	1382	1350	145	95	0	0	145	95	1527	1445	194.400
6	Kottakaraiyar	290	290	675	750	0	0	1105	1005	0	0	0	0	2070	2045	185	137	0	0	185	137	2255	2182	281.743
7	Arjunanadhi	342	342	681	681	32	32	420	420	638	638	0	0	2113	2113	115	115	0	0	115	115	2228	2228	280.288
8	Aliyar	430	402	160	160	0	0	60	98	0	0	690	690	1340	1350	0	0	607	607	607	607	1947	1957	175.251
9	Palar - CBE & Erode	430	404	1875	1861	0	0	220	185	0	0	75	85	2600	2535	160	139	50	62	210	201	2810	2736	383.961
	IAMWARM Cell																							25.573
	Total	2901	2725	7329	7553	174	177	3082	2912	668	638	1935	1875	16089	15880	1160	1051	677	689	1837	1740	17926	17620	2248.447

HORTICULTURE DEPARTMENT

Phase II - Physical and Financial Progress (2009-10)

Sl. No.	Sub-basin	Crops (Ha.)														2nd year Maintenance (Ha.)						G.Total		Expenditure upto 03/2010 (L. Rs.)
		Fruits		Vegetables		Flowers		Spices		Medicinal		Plantation		Total		Fruits		Plantation Crops		Total				
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	
1	Swethanadhi	20	16	115	81	0	0	0	0	0	0	0	0	135	97	5	0	0	0	5	0	140	97	23.410
2	Agniyar	150	150	130	130	0	0	10	10	0	0	175	175	465	465	87	87	150	0	237	87	702	552	59.670
3	Ambuliyar	50	50	60	60	0	0	25	25	0	0	50	50	185	185	0	0	30	0	30	0	215	185	29.220
4	Senkottaiyar	5	5	15	15	0	0	18	8	0	0	0	0	38	28	0	0	0	0	0	0	38	28	5.440
5	Sindapalli Uppodai	5	5	5	5	0	0	15	0	10	10	0	0	35	20	5	5	0	0	5	5	40	25	3.210
6	Chinnar	36	36	15	15	0	0	30	30	0	0	0	0	81	81	0	23	0	0	0	23	81	104	13.560
7	Anaivariodai	0	0	22	22	0	0	0	0	0	0	0	0	22	22	23	0	0	0	23	0	45	22	3.730
8	Varattar Nagalar	0	0	40	25	0	0	0	0	0	0	0	0	40	25	0	0	0	0	0	0	40	25	7.540
9	Upper Vaigai	10	10	10	10	0	0	0	0	0	0	0	0	20	20	0	0	0	0	0	0	20	20	5.230
10	Nishabanadhi	40	0	61	93	0	0	0	0	0	0	0	0	101	93	20	0	0	0	20	0	121	93	21.800
11	Kalingalar	20	0	35	47	0	0	0	0	0	0	0	0	55	47	40	0	0	0	40	0	95	47	12.140
12	Upper Gundar	20	0	145	195	20	10	5	5	0	0	0	0	190	210	0	0	0	0	0	0	190	210	32.380
13	Therkar	55	0	160	224	0	0	0	0	0	0	0	0	215	224	0	0	0	0	0	0	215	224	33.300
14	Poiney	70	0	240	306	10	0	22	57	0	0	0	0	342	363	35	35	0	0	35	35	377	398	58.910
15	Koundinyanadhi	15	0	107	132	0	0	0	0	0	0	0	0	122	132	0	0	0	0	0	0	122	132	22.500
16	Penniyar	40	40	70	70	40	30	0	0	0	0	0	0	150	140	20	0	0	0	20	0	170	140	24.300
	Total	536	312	1230	1430	70	40	125	135	10	10	225	225	2196	2152	235	150	180	0	415	150	2611	2302	356.340

HORTICULTURE DEPARTMENT

Phase II - Physical and Financial Progress (Project Total - up to 2009-10)

Sl. No.	Sub-basins	Crops (Ha.)														2nd year Maintenance (Ha.)						Grand Total		Expenditure upto 03/2010 (L. Rs.)
		Fruits		Vegetables		Flowers		Spices		Medicinal		Plantation		Total		Fruits		Plantation Crops		Total				
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	
1	Swethanadhi	44	40	250	216	0	0	0	0	0	0	0	0	294	256	5	0	0	0	5	0	299	256	49.070
2	Agniyar	306	267	268	216	0	0	27	27	0	0	356	325	957	835	87	87	150	0	237	87	1194	922	99.512
3	Ambuliyar	100	65	120	93	0	0	50	40	0	0	100	80	370	278	0	0	30	0	30	0	400	278	45.217
4	Senkottaiyar	10	10	25	25	0	0	33	23	0	0	0	0	68	58	0	0	0	0	0	0	68	58	9.810
5	Sindapalli Uppodai	10	10	15	15	0	0	35	20	20	20	0	0	80	65	5	5	0	0	5	5	85	70	8.714
6	Chinnar	74	74	35	35	0	0	60	60	0	0	0	0	169	169	0	23	0	0	0	23	169	192	22.963
7	Anaivariodai	0	0	49	49	0	0	0	0	0	0	0	0	49	49	23	0	0	0	23	0	72	49	7.095
8	Varattar Nagalar	0	0	85	70	0	0	0	0	0	0	0	0	85	70	0	0	0	0	0	0	85	70	14.338
9	Upper Vaigai	20	20	20	20	0	0	0	0	0	0	0	0	40	40	0	0	0	0	0	0	40	40	9.278
10	Nishabanadhi	80	30	132	164	0	0	0	0	0	0	0	0	212	194	20	0	0	0	20	0	232	194	44.438
11	Kalingalar	40	20	65	77	0	0	0	0	0	0	0	0	105	97	40	0	0	0	40	0	145	97	21.830
12	Upper Gundar	45	25	295	345	42	32	10	10	0	0	0	0	392	412	0	0	0	0	0	0	392	412	67.753
13	Therkar	120	65	320	384	0	0	0	0	0	0	0	0	440	449	0	0	0	0	0	0	440	449	68.513
14	Poiney	140	70	480	546	20	10	52	87	0	0	0	0	692	713	35	35	0	0	35	35	727	748	114.403
15	Koundinyanadhi	30	15	217	242	0	0	0	0	0	0	0	0	247	257	0	0	0	0	0	0	247	257	43.080
16	Penniyar	80	80	145	145	80	60	0	0	0	0	0	0	305	285	20	0	0	0	20	0	325	285	47.919
	Total	1099	791	2521	2642	142	102	267	267	20	20	456	405	4505	4227	235	150	180	0	415	150	4920	4377	673.933

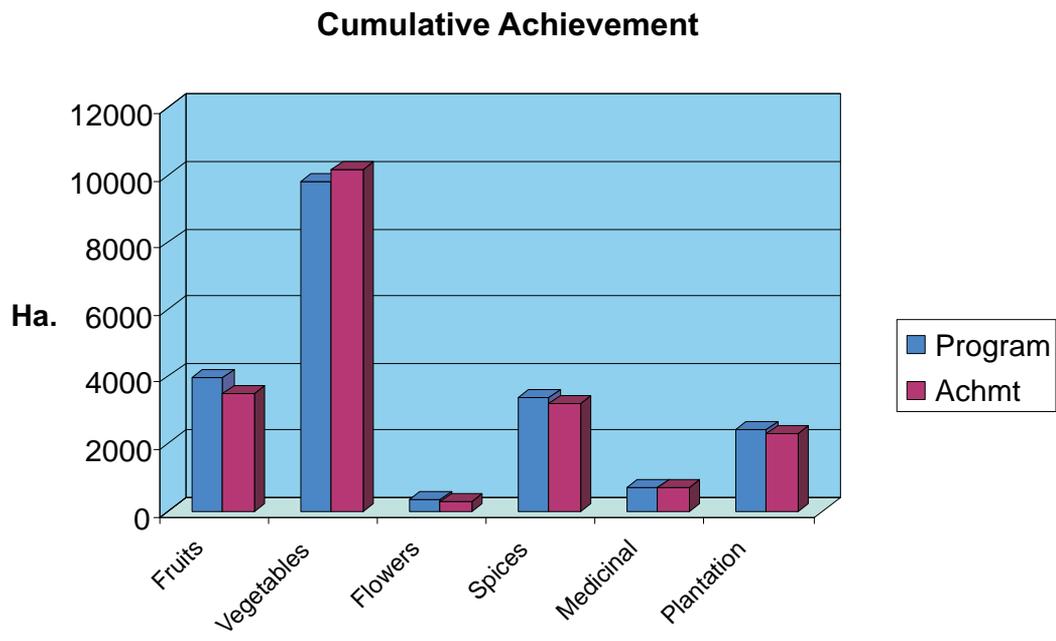
HORTICULTURE DEPARTMENT

Phase I & II Consolidated Physical and Financial Progress (Project Total - Up to 2009-10)

Sl. No.	Sub-basins	Crops (Ha.)													
		Fruits		Vegetables		Flowers		Spices		Medicinal		Plantation		Total	
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach
1	Phase I	2901	2725	7329	7553	174	177	3082	2912	668	638	1935	1875	16089	15880
2	Phase II	1099	791	2521	2642	142	102	267	267	20	20	456	405	4505	4227
3	Grand Total	4000	3516	9850	10195	316	279	3349	3179	688	658	2391	2280	20594	20107

Sl. No.	Sub-basins	2nd year Maintenance (Ha.)						Grand Total		Expenditure upto 03/2010 (L. Rs.)
		Fruits		Plantation Crops		Total				
		Tar	Ach	Tar	Ach	Tar	Ach	Tar	Ach	
1	Phase I	1160	1051	677	689	1837	1740	17926	17620	2248.447
2	Phase II	235	150	180	0	415	150	4920	4377	673.933
3	Grand Total	1395	1201	857	689	2252	1890	22846	21997	2922.380

HORTICULTURE DEPARTMENT



SUSTAINABILITY OF AREA AS ON MARCH 2010

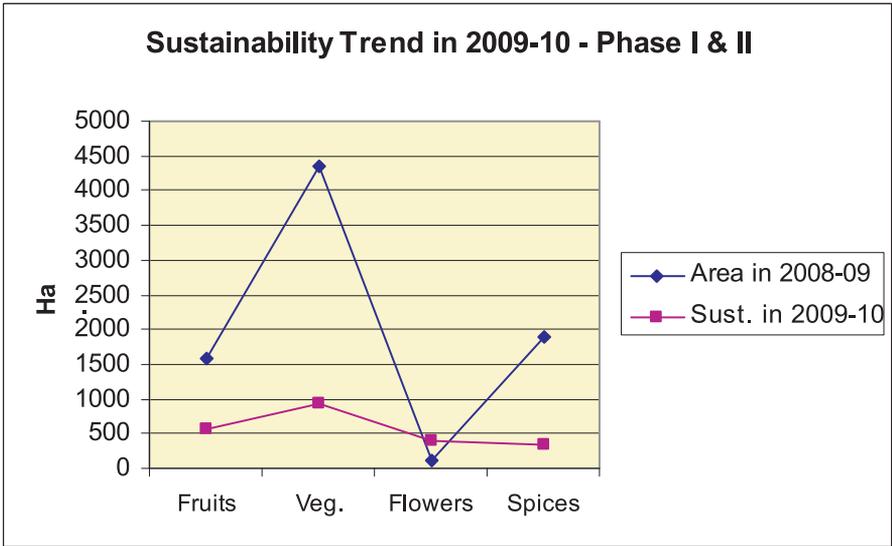
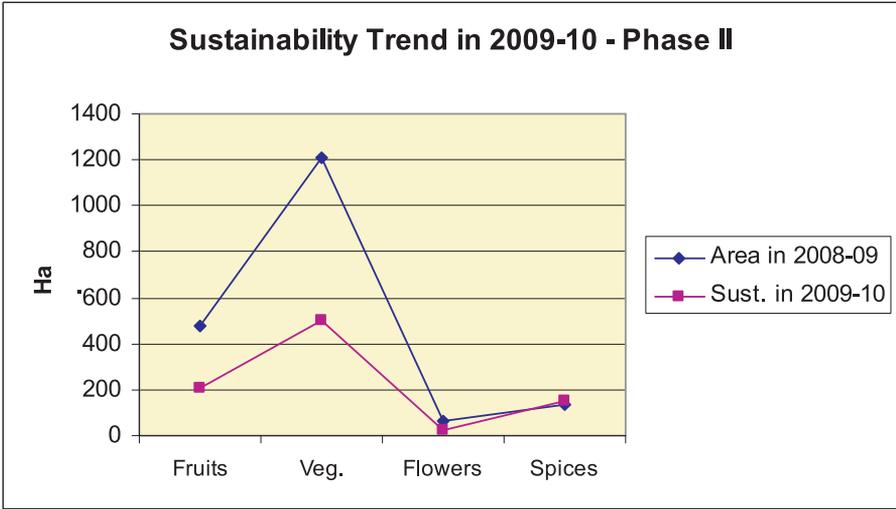
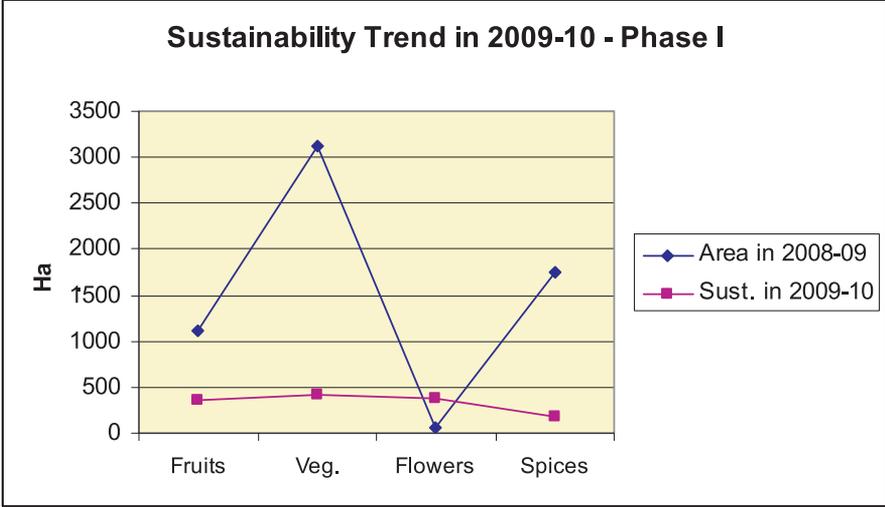
Unit in Ha.

Sl. No.	Crops	Phase I		Phase II		Total	
		Area Achieved in 2008 - 09	Area Sustained as on March 2010	Area Achieved in 2008 - 09	Area Sustained as on March 2010	Area Achieved in 2008 - 09	Area Sustained as on March 2010
1	Fruits	1115	350	479	207	1594	557
2	Vegetables	3126	422	1212	505	4338	927
3	Flowers	57	380	62	22	119	402
4	Spices	1747	174	132	155	1879	329
5	Medicinal Plants	160	0	10	0	170	0
6	Plantation Crops	1035	40	180	0	1215	40
Total		7240	1366	2075	889	9315	2255

More Income Per Drop of Water



HORTICULTURE DEPARTMENT



2.5 AGRICULTURAL ENGINEERING DEPARTMENT

Physical and Financial Progress during 2009 – 2010

Phase I Sub Basins

S. No	Sub-basin /Sub-Division	Drip		Sprinkler		MIS Total		ADVT (Rs.In Lakhs)	Training (Rs.In Lakhs)	Others (Rs.In Lakhs)	Total (Rs.In Lakhs)	Remarks
		Area (Ha)	Rs. In Lakhs	Area (Ha)	Rs. In Lakhs	Area (Ha)	Rs. In Lakhs					
1	Pambar	0.00	0.00	25.13	2.45	25.13	2.45	0.35	0.00	0.00	2.80	
2	South Vellar	0.00	0.00	64.59	6.30	64.59	6.30	0.35	0.29	0.00	6.94	
3	Upper Vellar	56.57	13.06	17.59	1.71	74.16	14.77	1.43	0.49	0.00	16.69	
4	Varagnadhi	22.55	7.27	527.25	41.71	549.80	48.98	1.66	1.36	0.00	52.00	
5	Kottakarayar	3.80	1.39	26.73	2.61	30.53	4.00	0.38	0.31	3.29	7.98	Chilli Drier
6	Manimuthar	0.75	0.27	89.88	8.76	90.63	9.03	0.38	0.30	0.00	9.71	
7	Arjunnadhi	1.96	0.13	7.50	0.68	9.46	0.81	0.11	0.02	0.68	1.63	EB Connection
8	Palar	183.32	26.54	31.00	2.06	214.32	28.59	4.04	1.60	0.00	34.23	
9	Aliyar	30.04	3.46	5.00	0.29	35.04	3.75	1.87	0.00	0.00	5.62	
	Phase I Total	298.99	52.11	794.67	66.57	1093.65	118.68	10.57	4.37	3.98	137.60	

More Income Per Drop of Water



AGRICULTURAL ENGINEERING DEPARTMENT

Physical and Financial Progress during 2009 – 2010

Phase II Sub Basins

S. No	Sub-basin /Sub-Division	Drip		Sprinkler		MIS Total		ADVT (Rs.In Lakhs)	Training (Rs.In Lakhs)	Others (Rs.In Lakhs)	Total (Rs.In Lakhs)	Remarks
		Area (Ha)	Rs. In Lakhs	Area (Ha)	Rs. In Lakhs	Area (Ha)	Rs. In Lakhs					
1	Agniar	0.00	0.00	34.00	3.32	34.00	3.32	0.37	0.27	4.50	8.45	Farm Pond
2	Ambuliyar	0.00	0.00	20.00	1.95	20.00	1.95	0.29	0.24	0.00	2.48	
3	Koundanyanadhi	4.33	0.92	9.00	0.88	13.33	1.81	0.30	0.29	0.00	2.40	
4	Poiney	0.00	0.00	67.38	6.11	67.38	6.11	0.19	0.44	0.00	6.74	
5	Swethanadhi	13.21	3.90	32.00	3.12	45.21	7.02	0.18	0.14	0.00	7.34	
6	Pennaiyar	10.24	1.67	11.00	1.07	21.24	2.74	0.10	0.08	0.00	2.92	
7	Chinnar	0.00	0.00	19.00	1.85	19.00	1.85	0.51	0.08	0.00	2.44	
8	Anavari Odai	0.00	0.00	5.00	0.49	5.00	0.49	0.00	0.00	0.00	0.49	
9	Upper Gundar	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.07	0.00	0.18	
10	Therkar	0.99	0.20	0.00	0.00	0.99	0.20	0.36	0.23	0.00	0.79	
11	Upper Vaigai	22.80	3.93	0.00	0.00	22.80	3.93	0.11	0.07	0.00	4.11	
12	Varattar Nagalar	24.54	8.09	0.00	0.00	24.54	8.09	0.11	0.07	0.00	8.27	
13	Singottaiyar	0.00	0.00	14.34	1.40	14.34	1.40	0.25	0.09	0.00	1.73	
14	Sindapalli Uppodai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15	Kalingalar	3.77	0.90	0.00	0.00	3.77	0.90	0.07	0.05	0.00	1.02	
16	Nichabanadhi	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.16	0.00	0.37	
	Head Quarters								0.60		0.60	
	Phase II Total	79.88	19.60	211.72	20.18	291.60	39.80	3.15	2.88	4.50	50.32	
	Grand Total	378.87	71.71	1006.39	86.75	1385.25	158.48	13.72	7.25	8.47	187.92	

2.6 AGRICULTURAL MARKETING DEPARTMENT

Sl. No	Particulars	Target (Nos.)	Achievement (Nos.)	%
1	Creation of Infrastructure ie. ABC, Storage sheds, Drying yards etc	233	191	81.9
2	Procurement of goods ie. Tarpaulin, Dunnage, Moisture meter, Weighing scale etc	2860	2366	82.7
3	IEC & CB activities ie. Training, Interface workshops & Exposure Visits	293	270	92.1
4	Commodity Groups (Maize, Pulses , Banana, Groundnut etc)	550	542	98.5
5	Memorandum of Understanding (MoU)	Nil	456	-
6	Percentage increase in the value of Marketable Surplus Phase I & II Maize Groundnut Black gram			
		11.32% 10.58% 9.67%		

More Income Per Drop of Water



AGRICULTURAL MARKETING DEPARTMENT

Physical Progress Details about Status of Civil Works for Phase II during 2009-10

Sl. No.	Name of the Sub-Basin	Description of the works	Name of the Village	Status of the work
1	Pennaiyar Upto Krishnagiri	ABC - 1 No	Thattiganapalli	Work in progress
		Collection Centre - 1 No	Kamanthotty	Work in progress
		Drying Yard - 2 Nos	Arasamarathu kottai	Site to be handed over
			Nagappankottai	Site to be handed over
2.	Swethanadhi	ABC - 1 No	Kodamalai	Completed.
		Collection Centre - 1 No	Naduvalur	Completed.
3.	Koundanyanadhi	ABC - 1 No	Erayangadu	Work in progress
		Drying Yard - 1 No	Pasumathur	Work in progress
		Storage Shed - 1 No	Eraivankadu	Enter upon awaited
4.	Poiney	ABC - 1 No	Neelagandarayanpettai	Agency decided site to be handed over.
		Drying Yard - 3 Nos	Vayalambadi	Enter upon awaited
			Sirunamalli	Enter upon awaited
			Pulivalam	Work in progress
5.	Ambuliyar	ABC - 1 No	Vadakku Tirunavalur	Civil Work Completed. Electrical work in progress
		Collection Centre - 1 No	Neelathur	Work in progress
		Drying Yard - 2 Nos	Pullan Viduthi	Completed
			Periyalur	Completed
6.	Upper Vaigai	ABC - 1 No	Theni	Civil Work Completed. Electrical work in progress
		Collection Centre - 1 No	Odaipatti	Civil Work Completed. Electrical work in progress
7.	Anaivariodai	Collection Centre - 1 No	Nallanayagapuram	Work in progress
		Drying Yard - 1 No	Sendurai	Work in progress
		Storage Godown - 1 No	Sendurai	Work in progress

AGRICULTURAL MARKETING DEPARTMENT

Physical Progress Details about Status of Civil Works for Phase II during 2009-10

Sl. No.	Name of the Sub-Basin	Description of the works	Name of the Village	Status of the work
8.	Chinnar	ABC - 1 No	Esanai	Work in progress
		Drying Yard - 3 Nos	Keelakkarai	Work in progress
			Sengunam	Work in progress
			Ladapuram	Work in progress
		Storage Shed -1 No	Ladapuram	Work in progress
9.	Agniyar	ABC - 1 No	Pallathur	Enter upon awaited
10.	Upper Gundar	ABC – 1 No	S. Kottaipatti	Enter upon awaited
		Collection Centre - 1 No	Saptoor	Work in progress
		Drying Yard - 1 No	Melathirumanickam	Completed
11.	Therkar	ABC - 1 No	Chekkanoorani	Work in progress
		Collection Centre - 1	Keelakoilkudi	Work in progress
12.	Nichaba-nadhi	ABC - 1 No	Kuvalikanni	Work in progress
13.	Kalingalar	ABC - 1 No	Vasudevanallur	Work in progress
		Drying Yard - 1 No	Koodalur	Completed
		Storage Shed - 1 No	Koodalur	Completed
14.	Senkottai-yar	ABC - 1 No	Mavilpatti	Civil Work Completed. Electrical work in progress
		Drying Yard - 1 No	Chidambarapuram	Completed
		Storage Shed - 1 No	Chidambarapuram	Completed
15.	Varattar Nagalar	Collection Centre - 1	Balagamudhram	Work in progress
		Drying Yard - 1	Balagamudhram	Completed

More Income Per Drop of Water



AGRICULTURAL MARKETING DEPARTMENT

Abstract of Commodity Group Formation and Memorandum of Understanding

Sl. No.	Particulars	Phase I (2007-08)	Phase II (2008-09)	Phase I & II (2009-10)
1	Commodity Groups	250	172	120
2	MoU's	20	207	229

Details about Formation of Commodity Groups Functioning in Phase I sub-Basins (2009-10)

Sl. No	Name of the Sub-Basin		Details of Commodity groups formed	
1	Phase I	Kottakkaraiyar	4	(Chillies – 2, Vegetable – 2)
2.		Manimutharu	1	(Pulses)
3		Upper Vellar	8	(Maize - 8)
4		PAP – Aliyar	12	(Maize – 5, Vegetable – 5, Coconut – 2)
5		PAP - Palar (Erode)	7	(Maize – 4, Sunflower – 2, Pulses – 1)
		PAP - Palar (Coimbatore)	10	(Maize – 3, Vegetable – 3, Coconut – 2, Pulses – 2)
6		Varahanadhi	44	(Maize – 10, G.nut – 11, Chillies – 2, Amaranthus – 1, Jasmine – 1, B.gram – 6, Gingelly – 1, Sunflower – 1, Veg. – 7, Banana – 1, Paddy – 2, G.gram – 1)
		Phase I Total	86	
7	Phase II	Agniyar	9	(Maize – 1, Groundnut – 2, Pulses – 6)
8		Ambuliyar	3	(Pulses)
9		Pennaiyar upto Krishnagiri	5	(Tomato – 2, Cauliflower – 1, Banana – 1, Gingelly – 1)
10		Varattar Nagalar	5	(Maize – 4, Cumbu – 1)
11		Upper Vaigai	2	(Maize)
12		Nichabanadhi	2	(TC Banana)
13		Kalingalar	1	(TC Banana)
14		Therkar	3	(Pulses – 2, Gingelly – 1)
15		Upper Gundar	4	(Pulses – 3, Maize – 1)
		Phase II Total	34	
		Grand (Phase I & II) Total	120	

AGRICULTURAL MARKETING DEPARTMENT

Number of MoU Signed - 2009-10

Name of Sub Basin	Paddy	Maize	Copra	Banana	Pulses	G.Nut	Tomatto	Cabbage	Vegetables	Sun-flower	Chillies	Onion	Gingelly	Cauli-flower	Total
Aliyar		2	2						3						7
Palar		6	1						2						9
Varahanadi		13							2						15
Uppper Vellar		21		1											22
Arjunanadhi	10	6			5						5				26
Kottakariyar						1			2						3
Manimuthar						1			1						2
Southvellar		7			3	3			2						15
Pambar		5			2	2									9
Swethanadhi		10													10
Pennaiyar upto Krishnagiri							1	1	1			1	1	1	6
Koudinyanathi					2	2		2	9						15
Nichabanadhi		6		2	4					2					14
Kalingalar		1		1	4					4					10
Chinnar												3			3
Ananivariodai															0
Upper Vaigai		6							3						9
Varattarnagalar		7			2	1			2						12
Upper Gundar		3			6										9
Therkar					9								2		11
Agniyar		3	1		2	3									9
Ambuliyar		4			2										6
Senkottaiyar		7													7
Grand Total	10	107	4	4	41	13	1	3	27	6	5	4	3	1	229

2.7 ANIMAL HUSBANDRY DEPARTMENT

ABSTRACT FOR PHASE I & II

Sl. No.	Phase	Est. of Sub basin Vet. Unit		AI Work		Fodder Cultivation (Ha)		Infert. Camp (Nos)		Deworming of Sheep & Goats		Farmers Interactive Meeting (Nos)		Farmers Training (Nos.)	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1	Phase I (2007-08)	50	27	150000	21368	770	770	600	600	0	0	800	800	3600	3600
2	Phase I (2008-09)		37	150000	255378	1505	1505	600	600	438000	438000	418	418	3600	3600
3	Phase I (2009-10)		36	165000	175368	2327	2317	600	600	0	0	243	243	3600	3600
4	Phase II (2008-09)	15	15	40500	40504	393	393	180	180	0	0	272	272	2625	2625
5	Phase II (2009-10)		9	44996	44681	221	221	180	180	473500	473500	272	272	2625	2625
Cumulative Total		65	45	550496	537299	5216	5206	2160	2160	911500	911500	2005	2005	16050	16050

ANIMAL HUSBANDRY DEPARTMENT

PHASE I - 2009 - 10

Sl. No.	Sub-Basins	Est. of Sub-Basin Vet. Unit		AI Work		Fodder Cultivation (Ha.)		Infert. Camp (Nos.)		Deworming of Sheep & Goats		Farmers Interactive Meeting (Nos.)		Farmers Training (Nos.)	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1	VarahaNadhi	11	10	36300	33000	118	118	132	132	100000	100000	60	60	400	400
2	Palar	10	7	38735	38735	725	725	120	120	120000	120000	60	60	400	400
3	Aliyar	2	1	8267	8267	118	118	24	24	8000	8000	8	8	400	400
4	Upper Vellar	10	10	33000	33000	180	180	120	120	80000	80000	11	11	400	400
5	South Vellar	4	2	13200	13200	230	230	48	48	100000	100000	22	22	400	400
6	Pambar	3	1	15900	11912	210	210	36	36	30000	30000	13	13	400	400
7	Kottakaraiyar	3	1	12429	12429	140	140	36	36	0	0	15	15	400	400
8	Manimuthar	4	2	21761	18631	221	211	48	48	0	0	30	30	400	400
9	Arjunanadhi	3	2	8402	6194	385	385	36	36	0	0	24	24	400	400
	Total	50	36	187994	175368	2327	2317	600	600	438000	438000	243	243	3600	3600

ANIMAL HUSBANDRY DEPARTMENT

PHASE II – 2009 - 10

Sl. No.	Sub basins	Est. of Sub basin Vet. Unit		AI Work		Fodder Cultivation (Ha)		Infert. Camp (Nos)		Deworming of Sheep & Goats		Farmers Interactive Meeting (Nos)		Farmers Training (Nos)	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1	Agniyar	1	1	3000	3000	20	20	12	12	40000	40000	48	48	200	200
2	Ambuliyar	1	0	3000	3000	15	15	12	12	10000	10000	20	20	200	200
3	Anaivari odai	1	0	3000	3000	0	0	12	12	12000	12000	12	12	200	200
4	Chinnar	1	1	3000	3000	10	10	12	12	18000	18000	20	20	200	200
5	Kalingalar	1	1	3000	3000	0	0	12	12	7000	7000	2	2	100	100
6	Koundinyanadhi	1	1	3000	3000	0	0	12	12	20000	20000	20	20	200	200
7	Nichabanadhi	1	1	3000	3000	35	35	12	12	90000	90000	18	18	200	200
8	Poiney	1	0	3000	3000	20	20	12	12	50000	50000	22	22	200	200
9	Ponnaiyar	1	1	3000	3000	40	40	12	12	30000	30000	16	16	200	200
10	Sengotaiyar	1	1	2996	2681	0	0	12	12	0	0	16	16	200	200
11	Swethanadhi	1	1	3000	3000	26	26	12	12	50000	50000	16	16	200	200
12	Therkar	1	1	3000	3000	20	20	12	12	80000	80000	22	22	200	200
13	Upper Gundar	1	0	3000	3000	25	25	12	12	40000	40000	14	14	200	200
14	Upper Vaigai	1	0	3000	3000	0	0	12	12	12500	12500	16	16	75	75
15	Varratar Nagalar	1	0	3000	3000	10	10	12	12	14000	14000	10	10	50	50
	Total	15	9	44996	44681	221	221	180	180	473500	473500	272	272	2625	2625

ANIMAL HUSBANDRY DEPARTMENT

PHASE I - CUMULATIVE ACHIEVEMENT (2007- 08 to 2009 - 10)

Sl. No.	Sub-Basins	Est. of Sub-Basin Vet. Unit		AI Work		Fodder Cultivation (Ha.)		Infert. Camp (Nos.)		Deworming of Sheep & Goats		Farmers Interactive Meeting (Nos.)		Farmers Training (Nos.)	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1	Varahanadhi	11	10	102300	99000	258	258	396	396	100000	100000	304	304	1200	1200
2	Palar	10	7	93000	93000	1375	1375	360	360	120000	120000	324	324	1200	1200
3	Aliyar	2	1	18600	18600	268	268	72	72	8000	8000	54	54	1200	1200
4	Upper Vellar	10	10	93000	93000	465	465	360	360	80000	80000	147	147	1200	1200
5	South Vellar	4	2	37200	37200	665	665	144	144	100000	100000	166	166	1200	1200
6	Pambar	3	1	27900	25150	360	360	108	108	30000	30000	77	77	1200	1200
7	Kottakaraiyar	3	1	27900	27900	220	220	108	108	0	0	95	95	1200	1200
8	Manimuthar	4	2	37200	34070	366	356	144	144	0	0	158	158	1200	1200
9	Arjunanadhi	3	2	27900	24194	625	625	108	108	0	0	136	136	1200	1200
Total		50	36	465000	452114	4602	4592	1800	1800	438000	438000	1461	1461	10800	10800

ANIMAL HUSBANDRY DEPARTMENT

PHASE II - CUMULATIVE ACHIEVEMENT (2008 - 09 to 2009 - 10)

Sl. No.	Sub-Basins	Est. of Sub basin Vet. Unit		AI Work		Fodder Cultivation (Ha)		Infert. Camp (Nos)		Deworming of Sheep & Goats		Farmers Interactive Meeting (Nos)		Farmers Training (Nos)	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1	Agniyar	1	1	5700	5700	50	50	24	24	40000	40000	96	96	400	400
2	Ambuliyar	1	0	5700	5700	35	35	24	24	10000	10000	40	40	400	400
3	Anaivari odai	1	0	5700	5700	10	10	24	24	12000	12000	24	24	400	400
4	Chinnar	1	1	5700	5700	35	35	24	24	18000	18000	40	40	400	400
5	Kalingalar	1	1	5700	5700	20	20	24	24	7000	7000	4	4	200	200
6	Koundinyanadhi	1	1	5700	5700	25	25	24	24	20000	20000	40	40	400	400
7	Nichabanadhi	1	1	5700	5700	85	85	24	24	90000	90000	36	36	400	400
8	Poiney	1	0	5700	5700	50	50	24	24	50000	50000	44	44	400	400
9	Ponnaiyar	1	1	5700	5700	100	100	24	24	30000	30000	32	32	400	400
10	Sengotaiyar	1	1	5696	5381	30	30	24	24	0	0	32	32	400	400
11	Swethanadhi	1	1	5700	5700	66	66	24	24	50000	50000	32	32	400	400
12	Therkar	1	1	5700	5700	50	50	24	24	80000	80000	44	44	400	400
13	Upper Gundar	1	0	5700	5700	25	25	24	24	40000	40000	28	28	400	400
14	Upper Vaigai	1	0	5700	5700	3	3	24	24	12500	12500	32	32	150	150
15	Varratar Nagalar	1	0	5700	5700	30	30	24	24	14000	14000	20	20	100	100
	Total	15	9	85496	85181	614	614	360	360	473500	473500	544	544	5250	5250

ANIMAL HUSBANDRY DEPARTMENT

FINANCIAL PROGRESS UPTO 31.03.2010

Rs. in Lakhs

Sl. No.	Sub-Basins	2007 - 08	2008 - 09	2009 - 10	Cumulative Progress upto 31.03.2010
	Phase I				
1	Aliyar	12.44	10.46	10.54	33.44
2	Palar	37.89	43.60	46.69	128.18
3	Upper Vellar	36.38	42.27	47.39	126.04
4	South Vellar	18.15	23.41	21.81	63.37
5	Varahanadhi	55.59	39.18	38.77	133.54
6	Pambar	12.17	13.05	15.59	40.81
7	Kottakaraiyar	14.78	11.37	13.72	39.87
8	Manimuthar	26.21	31.54	30.14	87.89
9	Arjunanadhi	19.84	12.53	16.49	48.86
10	IAMWARM Cell	5.46	1.89	2.66	10.01
	Total	238.91	229.30	243.80	712.01
	Phase II				
1	Anaivariodai	0.00	6.16	5.10	11.26
2	Chinnar	0.00	8.25	6.14	14.39
3	Agniyar	0.00	9.59	9.19	18.78
4	Ambuliyar	0.00	6.72	6.77	13.49
5	Upper Vaigai	0.00	5.25	4.42	9.67
6	Varratar Nagalar	0.00	5.89	4.79	10.68
7	Upper Gundar	0.00	7.49	5.83	13.32
8	Therkkar	0.00	10.25	7.40	17.65
9	Nichabanadhi	0.00	12.67	9.50	22.17
10	Kalingalar	0.00	4.80	4.19	8.99
11	Senkottaiyar	0.00	5.40	5.20	10.60
12	Pennaiyar upto Krishnagiri	0.00	11.20	7.68	18.88
13	Poiney	0.00	11.66	7.36	19.02
14	Koundinyanadhi	0.00	8.59	6.61	15.20
15	Swethanadhi	0.00	10.18	7.44	17.62
	Total	0.00	124.10	97.62	221.72
	Grand Total (Phase I & II)	238.91	353.40	341.42	933.73

2.8 FISHERIES DEPARTMENT

COMPONENT WISE ACHIEVEMENT

Sl. No.	Component	2007-08		2008-09				2009-10						Total - From 2007-08 to 2009 - 10 (upto March 2010)					
		Tar.	Ach.	Phase I		Phase II		Phase I		Phase II		Phase I & II		Phase I		Phase II		Phase I & II	
				Target including spill over of 2007-08	Ach.	Target including spill over of 2007-08	Ach.	Target including spill over of 2008-09	Ach.	Target including spill over of 2008-09	Ach.	Target including spill over of 2008-09	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1	Aquaculture in farm Ponds	194	37	201	144	217	89	121	85	128	103	249	188	302	266	217	192	519	458
2	Fish Seed Bank	10	0	10	4	2	2	6	6			6	6	10	10	2	2	12	12
3	Fish Seed rearing in cages	57	0	57	57	17	17					0	0	57	57	17	17	74	74
4	Improvements to Government Fish Seed Farm	2	0	2	2	2	2					0	0	2	2	2	2	4	4
5	Aquaculture in Irrigation Tanks					2942	1510	8325	2487	1432	767	9757	3254	8325	2478	2942	2277	11267	4764
6	Ornamental Fish culture	9	9			9	1			0	1	0	1	9	9	9	2	18	11
7	Fishing implement	70	70			55	55					0	0	70	70	55	55	125	125
8	Fish Kiosk	2	2			6	6					0	0	2	2	6	6	8	8
9	Fish Seeds reared		4.13		15.76		5.68					0	0	0	20	0	6	0	26
10	Total Fish Production (tons)		77.88		339.9		424.7					0	0	0	418	0	425	0	843
11	IEC / CB		392		0		860					0	0	0	392	0	860	0	1252
12	Financial Achievements (In lakh Rs.)	154.10	143.50	234.56	174.20	207.10	146.60	69.61	42.49	63.71	26.36	133	69	458	360	271	173	729	533

FISHERIES DEPARTMENT

PROGRESS -PHASE I & II (2007 - 08 to 2009 - 10 UPTO MARCH 2010)

Sl. No.	Sub-basins	Aquaculture in Farm Ponds		Fish seed Bank		Fish seed rearing in cages		Aquaculture in Irrigation Tank		Improvements to Govt. farms		Ornamental Fish culture		Fishing Implement		Fish Kiosk	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar. Ha	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
	Phase I																
1	Varahanadhi	38	38	2	2	12	12	1750	486	1	1	0	0	10	10	2	2
2	Upper Vellar	51	50	1	1	5	5	1200	420	0	0	0	0	5	5	0	0
3	South Vellar	30	30	2	2	10	10	1200	515	0	0	0	0	10	10	0	0
4	Palar (PAP)	2	2	0	0	0	0	0	0	0	0	2	2	0	0	0	0
5	Aliyar (PAP)	1	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0
6	Pambar	40	40	1	1	10	10	900	433	0	0	0	0	10	10	0	0
7	Arjunanadhi	30	13	1	1	0	0	1250	315	1	1	0	0	15	15	0	0
8	Manimuthar	60	47	1	1	10	10	900	134	0	0	5	5	10	10	0	0
9	Kottakaraiyar	50	45	2	2	10	10	1125	182	0	0	0	0	10	10	0	0
	Total	302	266	10	10	57	57	8325	2487	2	2	9	9	70	70	2	2
	Phase II																
1	Agniyar	70	56	0	0	0	0	0	0	1	1	0	0	5	5	0	0
2	Ambuliyar	30	30	1	1	5	5	0	0	0	0	0	0	5	5	0	0
3	Anaivari odai	6	6	0	0	0	0	220	186.58	0	0	0	0	2	2	0	0
4	Chinnar	9	9	0	0	0	0	525	491	0	0	0	0	2	2	1	1
5	Kalingalar	3	3	0	0	0	0	180	80	0	0	0	0	0	0	0	0
6	Koundinyanadhi	18	18	0	0	2	2	0	0	1	1	0	0	7	7	2	2
7	Nichabanadhi	6	6	0	0	0	0	350	219	0	0	0	0	0	0	0	0
8	Poiney	20	20	0	0	10	10	0	0	0	0	1	1	14	14	1	1
9	Pennaiyar	15	15	1	1	0	0	0	0	0	0	0	0	5	5	1	1
10	Sengotaiyar	5	5	0	0	0	0	163	163	0	0	0	0	2	2	0	0
11	Sindapalli	2	1	0	0	0	0	70	70	0	0	0	0	1	1	0	0
12	Swethanadhi	18	17	0	0	0	0	158	158	0	0	0	0	3	3	1	1
13	Therkar	10	5	0	0	0	0	1000	778	0	0	5	0	9	9	0	0
14	Upper gundar	5	1	0	0	0	0	200	55.18	0	0	2	0	0	0	0	0
15	Upper vaigai	0	0	0	0	0	0	51	51	0	0	1	1	0	0	0	0
16	Varratar nagalar	0	0	0	0	0	0	25	25	0	0	0	0	0	0	0	0
	Total	217	192	2	2	17	17	2942	2276.8	2	2	9	2	55	55	6	6
	Grand total	519	458	12	12	74	74	11267	4763.8	4	4	18	11	125	125	8	8

FISHERIES DEPARTMENT

FINANCIAL ACHIEVEMENT (2007 - 08 TO 2009 - 10 UPTO MARCH 2010)

SI. No.	Sub-basins	DPR Amount Rs. In Lakhs	Expenditure Details (Rs. In lakhs)						Cumulative Achievement (Rs. In Lakhs)
			2007 - 08		2008 - 09		2009 - 10		
			Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	
	Phase I								
1	Varahanadhi	67.92	4.13	2.47	45.31	37.24	5.93	3.270	42.980
2	Upper Vellar	32.07	3.59	2.02	14.55	11.48	3.25	2.480	15.980
3	South Vellar	47.77	1.39	0.97	40.39	33.75	1.40	0.510	35.230
4	Palar (PAP)	15.15	5.51	3.95	0.00	0.000		0.000	3.950
5	Aliyar (PAP)	14.82	5.51	3.83	1.48	0.070		0.000	3.900
6	Pambar	32.76	1.39	1.00	23.47	6.310	19.30	17.230	24.540
7	Arjunanadhi	84.51	1.08	0.48	40.97	33.190	7.41	2.360	36.030
8	Manimuthar	48.06	10.05	9.57	11.84	5.430	9.02	5.570	20.570
9	Kottakaraiyar	51.07	1.00	0.30	13.85	5.350	6.92	3.840	9.490
	IAMWARM Cell		120.4	118.95	42.70	41.38	16.38	7.230	167.560
	Total	394.13	154.05	143.54	234.56	174.20	69.61	42.49	360.230
	Phase II								
1	Agniyar	45.15			42.95	32.800	12.01	8.220	41.020
2	Ambuliyar	25.46			21.60	17.810	4.51	3.000	20.810
3	Anaivari odai	4.18			3.57	2.100	1.57	0.930	3.030
4	Chinnar	11.91			7.05	2.930	3.95	2.740	5.670
5	Kalingalar	3.00			2.89	0.480	2.05	0.980	1.460
6	Koundinyanadhi	64.61			53.68	53.050	2.90	1.000	54.050
7	Nichabanadhi	5.47			4.98	1.370	3.87	2.070	3.440
8	Poiney	16.63			7.63	4.90	2.61	0.250	5.150
9	Pennaiyar	24.28			18.68	16.370	2.89	2.780	19.150
10	Sengotaiyar	3.16			2.71	2.220	0.00	0.000	2.220
11	Swethanadhi	9.74			5.14	2.92	2.18	1.380	4.300
12	Therkar	26.55			23.40	6.780	15.85	1.000	7.780
13	Upper gundar	8.02			7.89	0.550	6.76	0.071	0.621
14	Upper vaigai	3.13			3.27	0.910	2.38	1.940	2.850
15	Varratar nagalar	0.48			0.47	0.450	0.00	0.000	0.450
16	Sindapalli uppodai	1.40			1.19	0.930	0.18	0.000	0.930
	Total	253.17	0	0	207.1	146.57	63.71	26.361	172.931
	Grand total	647.30	154.05	143.54	441.66	320.77	133.32	68.851	533.161

More Income Per Drop of Water



3. GLIMPSES FROM THE FIELD

3.1 WATER RESOURCES DEPARTMENT

Trichy Region Pambar Sub Basin (Package V) Pudukottai District Kanur Tank

Kanur tank is situated in Kanur Village of Avudaiyarkoil Taluk in Pudukkottai District. It receives water from Koluvaran and the surplus goes to Pariveeramangalam tank. The tank and supply channel were silted. The tank bund was very narrow and eroded heavily, and sluices were also in dilapidated condition.



BEFORE EXECUTION



AFTER EXECUTION

Under the project the tank bund was strengthened and brought to standards, the supply channel was desilted, 4 Nos of sluices and a surplus weir were rehabilitated at a total outlay of Rs.21.82 lakhs.



BEFORE EXECUTION



AFTER EXECUTION

By implementing this IAMWARM Project, the capacity of the tank has appreciably increased, and duration of water storage has also increased.

More Income Per Drop of Water



Pambar sub basin (Package-V) (Pudukottai District) Indanur Dividing Dam



BEFORE EXECUTION OF
THE DIVIDING DAM



DURING EXECUTION OF
THE DIVIDING DAM



AFTER EXECUTION
OF THE DIVIDING DAM

- ◆ Dispute for more than 50 years for sharing the water from Ponpethi river to Indanur Tank.
- ◆ Existing FTL of the Indanur Tank is higher than the River Bed Level & Hence, this tank was never filled up to FTL
- ◆ Previously, the water was shared by providing Mud korambu manually by the farmers.
- ◆ During the monsoon period the Mudkorambu washes out due to flood and the water level in tank also reduces by reverse flow.
- ◆ While providing Mudkorambu, there was always law & order Problem Created between Indanur Village Farmers and the Lower Tank Farmers.
- ◆ This was a perennial Problem Faced in the Past Periods.

- ◆ By implementing this dividing Dam, the dispute in sharing has been resolved.
- ◆ Indanur Tank gets filled up to the FTL Level
- ◆ Water Storage in the tank gets increased to nearly 100%.

Madurai Region
Manimuthar Sub Basin
(Package-VII)
(Sivagangai District)
Vinayagar Tank

The Existing Tank Bund was weak. Tank is silted up and the storage capacity considerably reduced. Existing sluice No: II, was damaged and required reconstruction and sluices III & IV needed improvements.

Strengthening of the tank bund 1017.40 m for the entire length, reconstruction of sluice No: II and improvement of sluices No: III & IV have been carried out. All these cost Rs.10.50 Lakhs.

By deepening the tank bed & strengthening the bund, the capacity of tank is improved and the ayacut has been fully stabilized by bridging the gap. Also recurring damages by flood to the bund is avoided, since the tank bund was fully compacted by power roller. By reconstruction of sluice, effective supply of water to the fields was ensured and the entire ayacut area has received full and assured supply of water to the crops. The ayacutdars of Vinayagar Tank appreciated that the works were carried out to their satisfaction.



TANK BUND - DURING EXECUTION



TANK BUND - DURING EXECUTION



SLUICE - AFTER EXECUTION

More Income Per Drop of Water



Manimuthar Sub Basin (Package-V) (Sivagangai District) Hanumanthakudi Small Tank

In this tank all the four sluices were in dilapidated condition. The stored water flowed waste through the damaged sluices. There were no control arrangements to regulate the flow through these sluices.

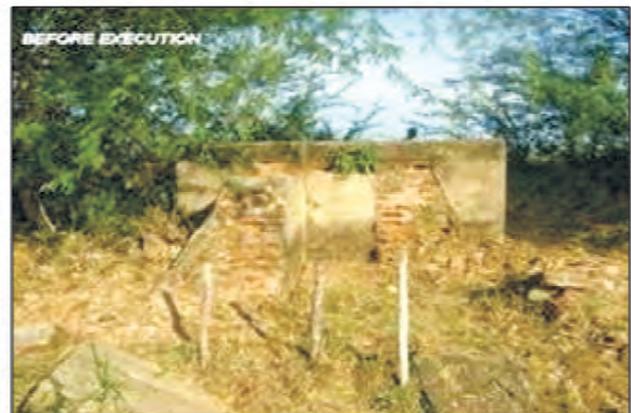
The entire tank bund was below standards, vulnerable to breaches. The side slopes had lost their original profile.

Now with the supervision of WUA Members and the ayacutdars of this tank all the four sluices of this tank were reconstructed with new techniques for better regulation.

The entire length of bund has been strengthened to standards. The storage capacity of this tank has also improved.

In the Gramasaba meeting the community acknowledged with gratitude the interventions made by the Government and Department.

The members of the WUA sent a letter of appreciation to the Executive Engineer.



BEFORE EXECUTION



AFTER EXECUTION

3.2 AGRICULTURE – SUCCESS STORIES

I SRI – Crop Demonstration:

i. Upper Vellar sub-basin

Mrs. Saroja Jeevanantham a farmer of Abinavam, TN Palayam village has grown KRH – 2 Hybrid variety in the village. The conventional



yield would be 5825 kg/Ha. and by Project efforts the yield had come to 12500kg/Ha. This would mean as much as 115% more than the usual yield which is a record achievement by any standard. This village is in Salem District Upper Vellar sub-basin.

ii. Anaivariodai sub-basin

Mrs. P. Vasuki of Nakkampadi village is a happy woman these days. She has planted KRH – 2



Hybrid variety in Phase II first year in Anaivariodai sub-basin of Ariyalur District and obtained an yield of 16750 kg/Ha. This is 126% more than the conventional yield of 7416 kg/Ha. This is a land mark achievement of the Project in this backward District.

II Hybrid Maize Crop Demonstration:

i. Palar Sub-basin

Mr. M.Sivalingasamy is a farmer living in Daserpatti village of Dharapuram taluk in Palar

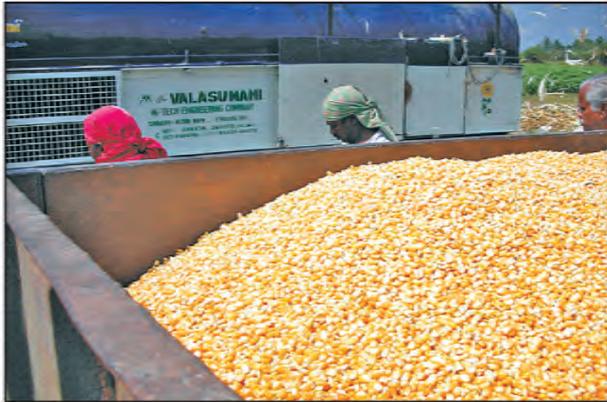


sub-basin in Erode District. He has grown Pioneer Hybrid Maize. By following the guidance of Project officials, he has obtained a yield of 13304 kg/ha as against the normal of 8041 kg/ha. by following conventional methods. This a success story by any standards and, the one to be followed by every one.

ii. Agniar Sub-basin

Mr. M. Sivasamy of Neduvasal (West) village is another successful Maize farmer, who has grown Bisco variety in Phase II second year in

More Income Per Drop of Water



Agniar sub-basin in Pudukottai District. He has obtained a yield of 9000 kg/ha. a record 67% increase over 5400 kg/ha which he normally could have obtain by following conventional methods. The credit to this goes to Project Agriculture Department officials, who had helped him by providing necessary inputs and technology.

III. Pulses Crop Demonstration:

i. Manimuthar Sub-basin

Mrs. S. Jaqulin Sagayarani of Anaithidal village is a Pulses growing farmer in Manimuthar sub-basin in Sivagangai District of Phase I second year. She has grown Blackgram with a variety T-9 and obtained a yield of 1470 kg/Ha. An increase of over 81% over conventional methods. She would have obtained 810kg/ha only according to conventional methods but was able to manage this increased yield with the help of Agricultural Department Project officials. Other farmers in the village look to this farmer for guidance in growing Blackgram.

ii. Agniar Sub-basin

Mr. C. Sivalingam of Pannavayal village of Phase II first year in Agniar sub-basin in Thanjavur District has grown Pulses - ADT-5 Blackgram



and has obtained a record yield of 1780 kg/ha a 96% increase over the conventional method of cropping. By the conventional method, he could have obtained only 910 kg/ha. Adaption of improved cultivation practices including usage of improved variety has helped him to achieve this incre over the conventional method of cropping. By the conventional method, he could have obtained only 910 kg/ha. Adaption of improved cultivation practices including usage of improved variety has helped him to achieve this increased yield.



3.3 TNAU Success Stories in the IAMWARM Project

Improved Maize Production Technology

Name of the farmer : Th.V.Ravi
Thirumani Post
Katpadi Tk. Poiney sub basin.



The farmer has grown hybrid maize in his 0.40 hectare on 28.10.2009 and sown the seeds by ridges and furrow method. Optimum plant population (60x 20 cm) split application of fertilizers and effective weed management were the technologies adopted by the farmer. Previously, the farmer has got 2100 kg maize yield in this field but now, the farmer got 3594 kg by adopting improved production technologies in maize.

System of Rice Intensification

Name of the farmer : Th.Thangavel
Name of the village : Pallavaram
Nemili block

The farmer has cultivated CORH 3 rice in 1.0 hectare and the date of transplanting was



26.02.2010. The farmer has stringently adopted critical SRI steps viz., raised bed nursery, transplanting 15 days old seedling, square planting 25 X 25 cm, use of rotary weeder three times at 10 days interval and alternate wetting and drying. The farmer has obtained an yield of 8759 kg per ha in SRI whereas his yield under conventional rice cultivation was only 4505 and SRI has nearly doubled the yield of rice.

Improved Production Technology in Groundnut

Name of the farmer : Krishnasami
Name of the village : K.R.Thangal
Sholinghur block



More Income Per Drop of Water



The farmer has cultivated TMV 7 groundnut variety in 1.0 hectare. He has adopted the following technologies- Line sowing with 30 x 10 cm spacing; Split application of fertilizers; Gypsum application before peg formation and hoeing & earthing up, Micro Nutrient mixture spraying 3 times on 25th, 35th and 45th days after sowing and adoption of IPM strategies for pest and disease management. The kernel yield obtained was 2568 kg whereas the conventional practices have yielded only 1751 kg per hectare only.

Precision farming in Tomato

Precision farming is a novel technology that helps the farmers to maximize the yield from



the existing resource. Also it improves the quality of produce and even 90 percent of the produce will be under the I grade produce thereby assists the farmers to fetch premium price. The shelf life which is the most important factor which confers time value in vegetables get enhance by 5 to 6 days. Also, 30 to 40 per cent water economy can be reaped. In all, it reduces the dependency on labourers and empowers the

farmers which is the needed one for today's agriculture.

Name of the farmer: Th. Chandrappa
Name of the Village: Peddakollu
Hosur Taluk.

The farmer has harvested around 55 tonnes of Tomato under Precision Farming mode with an income of Rs. 5.5 lakhs/ha as compared to 25 tonnes/ha previously under conventional farming.

Precision Farming in Vegetables – Bitter gourd

Name of the farmer: Th.K.Ganesan
Name of the village: Samiyandi Pudur
Thimmankuthu taluk

The farmer is a traditional vegetable farmer in Aliyar sub basin and the bitter gourd is the preferred vegetable for him. The existing market potential for bitter gourd at Coimbatore and



Kerala is effectively tapped by the farmer. During conventional method of vegetable cultivation, he used to get 50 tonnes per hectare only. He has

adopted the precision farming by the intervention of TNAU through TN-IAMWARM project and drip fertigation was done to the vegetable crop to increase the productivity. He has meticulously adopted the fertilizer schedule prescribed by TNAU. The farmer has obtained 80 tonnes per hectare and precision farming has increased the yield by 60 percent.

E-velanmai and ICT in Agriculture

To harness the information on the web Touch Screen information kiosks have been installed on a pilot basis under the IAMWARM Project. The timely and instant advisory on cultivation



technology coupled with weather, market information support is the need of the hour for most of the farmers. If the advisory is not available within a day the farmer is likely to adopt inappropriate technology or hasty decision in selling their final produce thereby reducing farm profits.

The Agri tech portal (www.agritech.tnau.ac.in) developed by TNAU provides extensive information on production and crop protection technologies of all the major crops. The farmers get adequate information on agronomic and plant protection through this website. The

prevailing price in the nearer markets can be viewed easily by the farmers through internet enabled touch screen system. The block wise weather data provided through TNAU guides the farmer in taking decisions on his farm.

The touch screen information kiosk installed under IAMWARM Project had very good response from farmers when piloted at Kooteripattu, Villupuram district.

The Dynamic market information system of TNAU is providing real time price information collected from 13 major markets in South India to the vegetable and flower farmers of IAMWARM project. The farmers who require the market prices have to register their mobile numbers with the IAMWARM Project. The farmers will be provided with the information

From: TM-DEMIC
Sent: Wednesday, May 05, 2010 07:45 AM
To:
Cc:
 NAIP-DEMIC Advise-The farm price of black gram in May-July, 2010 will be Rs.46-52/kg if current market sentiments continue. Farmers advised to sell immediately.

regarding the price of their registered commodity to their nearest two markets. Every day in the afternoon the registered farmers will be receive the price of their specified commodity to their mobile as a SMS message.



More Income Per Drop of Water



3.4 HORTICULTURE DEPARTMENT – SUCCESS STORIES

Koundinyanadhi Sub-Basin

Hybrid Brinjal Cultivation

I, K.Mogileeswaran, S/o. Kandhasamy residing in Agraharam village. I have attended the



IAMWARM meetings conducted by Horticulture Department in our village. They explained about IAMWARM scheme activities and told that seeds, planting materials and other required inputs are being distributed at free of cost under the project. I understand that more importance is given for vegetables like hybrid Bhendi, brinjal, tomato etc.

I met the officials of Horticulture Department and got Brinjal, Ravaiya a new hybrid seed and other required inputs at free up cost for 0.4 ha. I have attended the IAMWARM training also and learnt about the latest technologies of vegetable cultivation and adopted the same in my brinjal field (Survey No. is 67/2, 5).

First I have prepared raised seed bed for nursery. Seed treatment was done with *Trichoderma viridi* and also with liquid bio fertilizer. The nursery was sown on 05.10.2008.

In the main field basal dressing was done with DAP and liquid fertilizer. Thirty days old seedlings were treated with *Trichoderma viridi* and *Pseudomonas* (root dipping) and then planted with 2'x2' spacing on 14.11.08. Top dressing was given with Urea and Potash. Plant protection measures were taken up with Neem oil and Monocrotophos. First picking started on 2.01.09 and then once in 3 to 4 days for 3 months. In 1st month at 3 to 4 days interval 12 harvests was done and got 4.5 MT. After that at weekly intervals. I got 7.5 MT in 13 harvests. In total 12 MT of brinjal was harvested in 0.4 ha (30 MT / ha).

In our area, the local variety Mullukathiri is generally grown by the farmers and the yield is only about 20 MT / ha.

The expenditure made and income, I got from 0.4 ha is given below:-

	0.4 / ha	Per / ha
Yield obtained	12 MT	30 MT
Expenditure made	Rs.15,000/-	Rs.37,500/-
Total income	Rs.48,000/-	Rs.1,20,000/-
Net Profit	Rs.33,000/-	Rs.82,500/-

The Ravaiyya hybrid variety yielded about 10 MT more than the local variety. I have sold the harvested brinjal in the local market itself and got good price at Rs.4/Kg on an average.

During harvest, many farmers visited my brinjal field and wondered about the performance of the crop and expressed their willingness to cultivate brinjal in the ensuing season. I suggested them to meet the horticulture officers concerned and get their advice. I am very much satisfied about the yield and income and want to continue to grow brinjal in the subsequent seasons also.

I am much thankful to TN-IAMWARM Project and Horticulture Department for encouraging me to participate in the project and made me to get good yield and income through hybrid brinjal cultivation.

Yours sincerely,
K. Mugileeswaran

Poiney Sub-Basin

Hybrid Bhendi Cultivation

I, Sellamuthu, S/o. Kullappa Reddy, residing in Padi village of Nemili Block in Vellore District. The officials of Horticulture Department contacted me and explained me about the IAMWARM scheme and advised me to go for



Hybrid Bhendi cultivation instead of Paddy crop which needs more water for cultivation. I accepted and cultivated Hybrid Bhendi (Variety US – 7109) in 0.50 ha (Survey No. 419/1b). I got the hybrid bhendi seeds and other required inputs at free up cost from the Horticulture Department under the project. 2.5 kg of seeds were sown in 0.5 Ha land on 25.03.2009 and the spacing adopted was 60 x 45 cm.

The fertilizer dose applied was 200 kg Urea, 250 kg super phosphate and 70kg of M.O.P as per the recommendation given in IAMWARM Training. The liquid Azospirillum and Phosphobacteria were applied at the rate of 0.4 litre each. The application of T.Viridi and Pseudomonas at the rate of 0.4 kg respectively prevented fungal infection and the crop gave a yield of 6.5 M.T from 0.5 Ha.

First harvest started (45th day) on 15.05.09 and continued on every alternate day. The US 7109 variety with effective plant protection measures gave boosting yield which inspired the local farmers who have visited my field to cultivate vegetable crops especially hybrids in the seasons to come.

About 40 harvests were made in hybrid bhendi and got 6.5 MT in 0.5 ha. Whereas in local variety it is normally about 25 harvests only and the yield is about 10 MT / ha. The normal income in local variety is Rs.20,000 / ha.

More Income Per Drop of Water



The expenditure made and income received from 0.5 ha is given below:-

	0.5 / ha	Per / ha
Yield obtained	6.5 MT	13 MT
Expenditure made	Rs.12,000/-	Rs.24,000/-
Total income	Rs.39,000/-	Rs.78,000/-
Net Profit	Rs.27,000/-	Rs.54,000/-

I have sold the harvested produce at Koyambedu market. I am fully satisfied about the performance of the hybrid bhendi crop and want to cultivate the same in future seasons also.

Thanks to the TN-IAMWARM Project and the Horticulture Department for given me this opportunity to take up Hybrid Bhendi cultivation and to get good profit.

Yours Sincerely,
K. Sellamuthu,

3.5 AGRICULTURAL ENGINEERING DEPARTMENT SUCCESS STORY

A Farmer's Mercantile Experience

Growing Vegetables in Varaganathi Sub basin has assured marketability as it is nearer to Greater Chennai. But, farmers are



reluctant to go for Vegetables cultivation as they have no awareness about it. Thiru Mugunthan, S/o. of Thiru Pandurangan hails from Konakkampattu village near Thindivanam is a small farmer having a land of 1.60 acres. With the available water, he

was content with growing paddy in 0.5 acres for one season, leaving the rest of his land as fallow.

The Engineers from AED approached him and explained about switching over to high income generating vegetables coupled with Drip Irrigation. Motivated by officials, hesitant Mugundan, finally decided to go in February 2010 for 4 types of vegetables viz. Brinjal in 0.60 acres, Bhendi in 0.20 acres, Rip Gourd in 0.30 Acres and bitter Gourd in 0.35 Acres. Drip Irrigation with fertigation was installed at a total cost of Rs.58,000/- of which, his contribution was Rs.36,000/-.

Within a span of three months, he started getting yields. The farm produces were sent to Chennai Koyembedu market. Besides, he put a stall nearby his farm and started selling the vegetables. Vegetables have earned him Rs.43,000/- and going on. Now, he has become a role model for his village and is advocating for Drip Irrigation and Vegetables.

COST TABLE FOR VEGETABLES CULTIVATION

Description	Brinjal	Bhendi	Rip gourd	Bitter Gourd
Cultivated Area	0.60 Acre	0.20 Acre	0.30 Acre	0.35 Acre
Date of Cultivation	20.04.10	03.02.10	10.03.10	10.03.10
Total Yield	350 Kg	1500 Kg	1200 Kg	1250 Kg
Selling Price	Rs. 8-10 /Kilo	Rs. 8-10 /Kilo	Rs.10-12 /Kilo	Rs.12-15 /Kilo
Total Income in months ³	Rs.2,800/-	Rs.12,000/-	Rs.12,000/-	Rs.15,000/-
Rs.42,800/- in Three months				

3.6 AGRICULTURAL MARKETING DEPARTMENT – SUCCESS STORIES

Pulses Mission in Pudukottai District

(TATA, MDPU, TNAU, Agri – Departments, Co-operative Department and District Administration)

The Current per capita availability of Pulses in India is below 40g as against 80g per day as recommended by WHO. The requirement of vegetable protein in Indian diet is highly essential to check the malnutrition.

In Tamil Nadu the total area under Pulses is 5.25 lakhs ha with the total production of 1.77 lakh tons and average productivity of around 337 kg/ha¹. This is far below the national average of

598 kg/ha¹. This major concern of very low Pulses production status was discussed in the Project and shared in the Empowered Committee Meetings. This led to the Pulses Mission under the TN-IAMWARM Project combining the Departments of Agriculture, Agri. Marketing and TNAU.



Blackgram crop in Pulses Mission Area – Pudukottai District.

More Income Per Drop of Water



In IAMWARM Project (assisted by World Bank) entered PPP mode on Pulses Mission with M/s. TATA Sons at Pudukottai District. The Committee consisting Department of Agriculture, Agri. Marketing, Co-operatives and TNAU exclusively formed for this purpose reviews the implementation at periodic intervals under the direction from IAMWARM Project.

During the last 3 years (2007-2010), 45093 ha has already been achieved by the Department of Agriculture and TNAU under the IAMWARM Project. The Agricultural Marketing facilitated by forming around 123 Commodity Groups in Pulses in the IAMWARM Project sub-basins of Tamil Nadu.

Under the Pulses Mission by PPP mode at Pudukottai during this year, Department of Agriculture and TNAU is implementing in around 1500 ha and M/s. TATA Sons is in 700 ha under "plough to plate method". The Agricultural Marketing Department facilitated this process by forming 22 Pulses Commodity Group. This Pulses Commodity Groups handled around 14.4 tons of Pulses worth around the value of Rs.6.62 lakhs.

The automated MKrishi Systems of TATAs is being used for implementation in the working area of M/s. TATA Sons and e-Velanmai of TNAU in other areas. During 2009-10 year, Blackgram Pulses crop additionally sown in an area of 2200 ha in the sub-basin area of the District. Totally 127.4 MTs of Blackgram has already been procured by the Co-operative Society (CMS) at

remunerative prices of Rs.50 per kg of produce. The farmers were given Rs.1/kg in addition to the local market price immediately and subsequently future profit is shared between CMS and farmers after retailing the Pulses in the cities. Further, not less than 100 MTs of procurement of Blackgram by M/s. TATA Sons for retail experiment is underway.

Venturing into Chilly Processing



In Virudhunagar District, Chilly crop is being cultivated around 2300 hectares. Our village Moovaraivenran comes under Arjunanadhi sub-basin of the IAMWARM Project. During the

2008-09, Hybrid chilly varieties like Namdhari & Siyara were cultivated in around 19 acres with the guidance from Horticulture Department. After cultivation, through the Department of Agricultural Marketing, chilly Commodity Group was formed & a buy back arrangement was made with NPR Warehouse – Rajapalayam.

Traditionally in our village till date hybrid varieties of chillies were not cultivated and during the year (2008-09) only hybrid varieties as above were cultivated and approximately 15 to 18 quintals of chillies were harvested from 1 acre.

On 08.05.2009 buy back agreement was made with N.P.R Warehouse Company for the procurement of dried chillies & when the chillies

went to that company they were accepting the chillies more than the market price @ Rs.500/ Quintal. In our village, through chilly Commodity Group 25 quintal of finely graded hybrid Namdhari dried chilly was sold with a profit amount of Rs.12500/- which indeed made all the chilly farmers happy.



Harvested produce of Namdhari Hybrid chillies at Moovaraivendran village – Arjunanadhi sub-basin



Realisation of increased price of Rs.500/Quintal by Commodity Group members through MoU.

A. Pondi (A)
Iyyanar
President,
Chilly Growers Association,
Moovaraivendran,
Virudhunagar District

Varahanadhi Agri Business Centre

Objectives / Activities

- ◆ To ensure that market driven and profitable crops are grown by the farmers.
- ◆ Forming Commodity Groups and conducting interface workshops with buyers.
- ◆ Providing improved production technologies in case of high return crops.
- ◆ MoU between the buyers and the farmers who have cultivated alternate crops particularly Maize crop.
- ◆ To provide market information and market intelligence to the farmers.
- ◆ To improve the marketing by arranging transport, storage and also facilitate value addition to the produce.



Manual Grading - Bhendi

More Income Per Drop of Water



Usage of tarpaulin in farm site

In Varahanadhi Sub basin through TN-IAMWARM Project, 15 IEC & CB training programmes which includes exposure visits, interface workshops and trainings on post harvest technology and value addition were conducted benefiting 505 farmers.

In order to minimize the post harvest processing loss and to prevent quality degradation, five drying yards were constructed for the benefit of the farmers to dry their produces. Similarly, four storage godowns and one collection centre were constructed to store the harvested produce in the main season. These infrastructure were handed over to the Water Users Associations (WUA) of concerned villages. In addition to this, one moisture meter was provided to Agri Business Centre (ABC) to test the moisture content of grains stored in the godown. To safeguard the harvested produce from rain, 42 tarpaulins were provided to Water User Associations and 128 metal dunnages were issued to storage godowns. All the above infrastructures were created at an outlay of Rs.67.29 Lakhs.



Scientific Storage - Dunnage

During the year 2008-09, 10 Commodity Groups on Maize and 3 Commodity Groups on vegetables were formed. During the year 2009-10, 74 Commodity Groups were promoted for different crops like Maize, Blackgram, Groundnut, Gingelly and Vegetables.

Agri-Business Centre (ABC):

Agri-Business Centre in Kooteripattu is a hardware component constructed by Department of Agricultural Marketing and Agri Business under TN-IAMWARM Project in Varahanadhi sub-basin. It caters the farmers need of near by 14 villages. These villages have been attached to the ABC and in each village a Commodity Group has been formed. Totally 15 Commodity Groups is linked to this ABC.

General Features:

The ABC would operate on a Hub-and-Spokes model wherein the ABC (The Hub) would be linked to the member of Commodity Groups (The Spokes).

The ABC would establish backward linkages with farmers through the Commodity Groups and forward linkage through wholesales, processing units and exporters.

Maintenance and Operation:

Water User Associations and Commodity Group members would maintain the ABC through an Advisory Committee formed for this purpose and President of the Advisory Committee will operate the ABC accounts etc.

Service Charges:

The service charges fixed will be based on the commercial and viability aspects. The charges collected will not exceed more than the 50% of outside rate and the ABC will be maintained by the service charges collected and no financial support will be provided by the Government.

Features:

- ◆ Commodity Transport – Goods Auto
- ◆ The ABC would have the option to provide additional facilities to render complimentary services such as input supply, processing, agro machinery, equipments etc.
- ◆ The ABC would facilitate the farmers in making direct supply to processing units, retail chain and exports at their choice.



Commodity Transport – Goods Auto

- ◆ The ABC would be free to collect user charges from market participants and producers for the infrastructure and services provided by it.

Benefits:

In ABC storage godown, so far 68.26 M.T. of Maize, 93.81 M.T. of Groundnut, and 13.93 M.T. of Paddy were stored benefiting 117 farmers. Two mini autos were given to Avaiyarkuppam WUA and Pidagam WUA. Totally 215 M.T. of Bhendi, 78 M.T. of Brinjal was transported and through them the vegetables were sold at higher prices when compared to local market price. Due to this farmers got 20% more income than the local market rates.

An amount of Rs.11.66 lakhs has been sanctioned for additional facilities viz, Input shops – seeds, fertilizers and pesticides, credit facility through banks and hiring the machineries etc.

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3.7 ANIMAL HUSBANDRY DEPARTMENT – SUCCESS STORIES

Koundinyanadhi Sub Basin - (Vellore District)

Tmt. Vasantha, W/o. Gajapathy of T. Ramapuram Village, Koundinyanadhi sub-



basin has three cross bred jersey cows. One of her jersey cross bred cow 2nd lactation was successfully treated for infertility in the infertility camp on 04.01.2009. The animal was inseminated on the same day with post insemination antibiotics. The animal was reported, not showing the symptoms of oestrus after the treatment. The cow was examined for pregnancy on 11.04.2009 and was found pregnant. It was calved a healthy female calf on 09.10.2009. Apart from this she is having 2 cross bred cows and 2 heifer calves and 4 sheep and goats. She also raised CO-3 fodder at an area of 30 cents. The farmer notices an increase of 1 litre to 1.5 litres of milk from her milch animals after feeding CO-3 fodder.

South Vellar Sub Basin (Tiruchi- District)

Tmt. Deivanai, W/o. Pichai of Sithirampatti Village, South Vellar sub-basin has two cross



bred cows. Among them one cross bred jersey cow was artificially inseminated by the Meenaveli Cluster Sub-basin Veterinary Unit Doctor on 25.04.2009. The cow was examined for pregnancy on 27.07.2009 and was found pregnant. The animal was calved a healthy calf on 04.02.2010. It gives milk and the farmer earns substantial daily income to run her life.

Kalingalar Sub Basin (Tirunelveli – District)

Thiru. Narayanasamy, S/o. Thiru. Arunachalam of Narayanapuram Village, Kalingalar sub-basin has raised CO-3 fodder at an area of 50 cents. The farmer is having two cross bred milch animals, 2 heifer calves and 5 sheep and goats in his house. The farmer notices an increase of 1 litre to 1.5 litres of milk from his milch animals after feeding CO-3 fodder. He also remarked that



by feeding CO-3 fodder the expenditure on purchase of concentrate and groundnut cake where reduced considerably. The farmers also reported that 3 interested farmers from his village got CO-3 slips from him and raised CO-3 fodder to an extent of 95 cents.

3.8 FISHERIES DEPARTMENT – SUCCESS STORIES

Additional income through Aquaculture in Farm Ponds:

Aquaculture was promoted in Farm ponds which were excavated primarily for rain water harvest, ground water recharge and critical irrigation. Majority of the farm ponds yielded fish production of 300Kg to 500Kg and an average net income of Rs 10,000/-per Crop.

Here are instances in which the Farmers were able to accomplish an excellent fish production of over 600Kg/Pond(0.1ha)/Crop by scrupulously following good management practices advocated by the project.

Koundinyanadhi Sub-basin:

Thiru. **Tamilselvan** of **Latheri** Village converted a portion of his land (0.1ha) which was yielding meager income through green Leaf cultivation to a Farm Pond. He was encouraged to take up aquaculture in the pond to get an additional income from the stored water before utilizing for irrigation. He underwent training on Aquaculture offered by the Project which facilitated to learn and see good Aquaculture Practices.

The Project offered him good quality fish seed and feed. He was able to harvest **803 Kg of fish** which is excellent by the average production level in the semi intensive culture systems in Tamil Nadu.



Salient Details:

Fish seed Stocked	-	Catla, Rohu, Mrigal, Grass Carp, Silver Carp.
Culture Period	-	8 Months.
Fish Production/ha	-	8.03 tonnes/ha
Net Profit	-	Rs 31,680/-

Poiney Sub-basin:

Thiru. **Devaraj of Vallam** Village was able get a net revenue of Rs 18,000/-



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with a total Fish harvest of 645Kg from his Farm Pond.He was able to **triple his profit** from the same land which was used to Cultivate Paddy and is **sustaining** the aquaculture activity.

Salient Details:

Fish seed Stocked - Catla, Rohu, Mrigal,
Common Carp,
Silver Carp.
Culture Period - 7 Months.
Fish Production/ha - 6.45 tones/ha
Net Profit - Rs 18,000/-

Aquaculture in irrigation tanks:

Aquaculture promoted in the irrigation tanks has substantially increased the Fish Production in the Sub Basins.. The increased fish production has benefitted the rural Village population

bordering the tanks by providing good quality animal protein.



The aquaculture promoted in **Attrankarai big tank** , Tuticorin Disrict of **Senkottayar** Sub Basin has **increased the fish production by about five** times from the baseline.ie 50Kg/ha to 250Kg/ha.The **Attrankarai Periyakanmai and Chinnakanmai Water User Association(WUA)** was able to get about **Rupees one lakh** through Aquaculture and the President **Thiru. Sihappurasu** and the members are **immensely satisfied** with the Project intervention and intend to utilize the amount for tank maintenance purpose.

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4. EXTERNAL EVALUATION OF THE IAMWARM PROJECT

4. EXTERNAL EVALUATION OF THE IAMWARM PROJECT

Executive Summary:-

A rapid assessment of the impact of IAMWARM project was done with the principal objective to measure the impact of the project on farming community, farming practices, irrigation service delivery and farm income through interventions in crop diversification and horticulture area expansion through an external agency. The study was conducted in three Phase I sub basins viz., Varahanadhi, Upper Vellar and PAP-Palar sub basins. Tank *ayacuts* in the block formed the 1st stage and farm holding the 2nd stage. All the farmers in the *ayacut* of the selected tanks formed the sampling frame and sampling was done using probability proportionate sampling. Systematic random sampling method was used to select the farmers from each tank *ayacut*. 32 Water User Associations and 223 individual farmers were contacted from the area where the project has been active since 2007-08. In addition, farmers' groups from 18 tanks /villages belonging to the same sub basins with comparable socio-economic and agro-climatic conditions where there are no interventions from the project were selected to serve as comparison areas. Eighty four individual farmers were contacted from these villages. On the whole, 50 WUAs/Farmer Groups and 307 individual farmers formed the sample for the study. Data collection was carried out mainly through (i) individual farmer interviews and (ii) Focus Group Discussions with

group of farmers employing Quantified Participatory Assessment methodology.

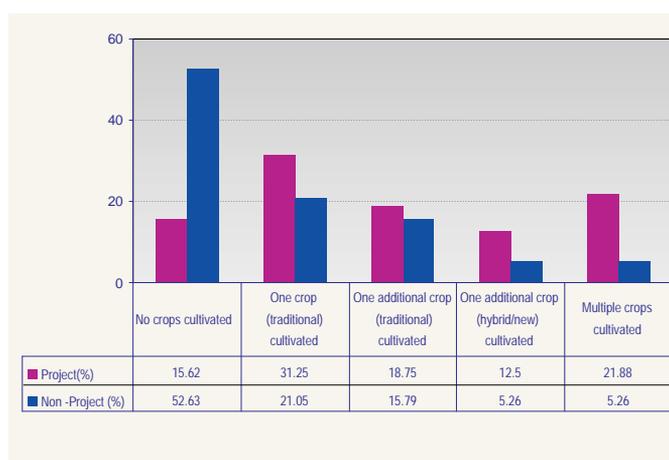
Main Findings

Water Resources Department - Restoration of Water Bodies

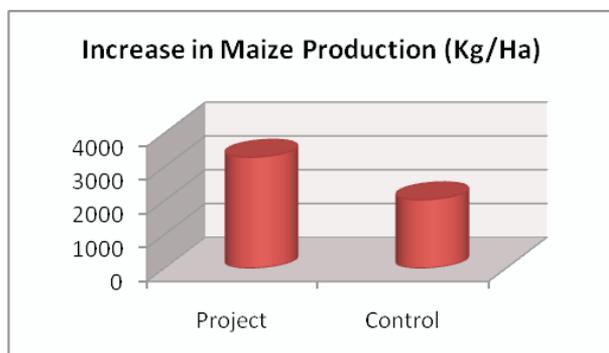
Restoration of water bodies has been one of the main objectives of the project and this information was elicited from the farmers through the individual interviews. More than 63 percent of the farmers in the project area reported that one or the other kind of work has been executed in the tank/canal in their area. The works included strengthening the bunds, restoring incoming channel, repairing the sluices and weirs and formation of water user association.

Crop diversification

More than one third of the farmers participated in the focus group discussions from the project area perceived that they were able to diversify their farming by adopting new and hybrid crops over the period 2007-2009. The data indicated



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that 22 percent of the farmer groups in the project area reported that they were able to cultivate multiple crops against 5 percent farmer groups in non project area. In maize, it was found that the project group farmers obtained more yield per acre, 3285 kg against 2027 kg in the control area, (62 percent more).

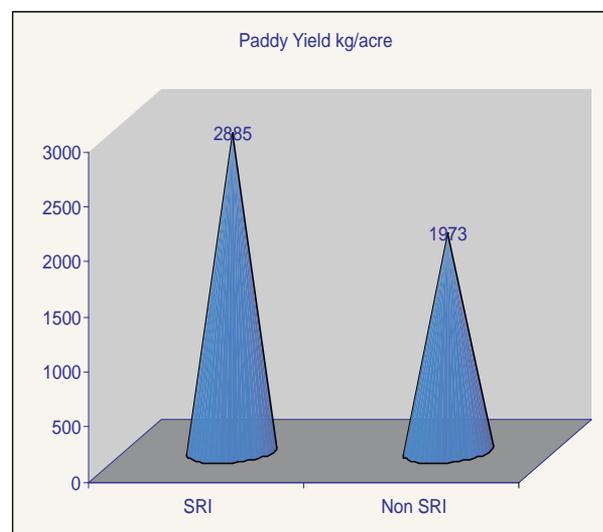
SRI in the Project

Nearly 45 percent of the area under paddy cultivation adopted SRI in the project area,

ARI Adoption	Non Project	Project
SRI cultivation	8.60	44.55
Conventional cultivation	91.40	55.45
Total	100	100

whereas in the non project area the corresponding percentage was only 8.6.

Further analysis of the average yield per acre for the farmers practicing SRI, showed a significantly higher yield compared to the conventional paddy growers. SRI growers harvested nearly 912 kg, that is 46.22 percent, more yield per acre. The income they derive from rice is also significantly more, *i.e.*, Rs 28425/



acre instead of Rs 17434 (63.04 percent) earned by the non SRI farmers.

Impact on Horticulture

The average yield and income for selected crops cultivated with project intervention showed a noticeable difference compared to the conventional cultivation, turmeric hybrid is found to be most profitable crop.

Crop	Project/Hybrid		Conventional	
	Quantity (Kg)	Value (Rs)	Quantity (Kg)	Value (Rs)
Turmeric	9970	897338	8000	24000
Tapioca	11892	64236	7200	50400
Bhendi	8229	16244	6800	27200
Tomato	33329	15456	9400	7520

Changes perceived by farmers:

- More than 50 percent of the farmers in the project area perceived an increase in the yield over the two years against 12.5 percent in the non project area.

- ◆ Nearly 4 percent felt that their farm yield has almost doubled during the period 2008-09.
- ◆ **More than 42 percent in the project area farmers felt a positive change in the income** when only 12.5 percent in the non-project area felt a positive change. Nearly 4 percent of the project area farmers perceived a change to the extent of almost doubling their income from farm over the period 2008-09.
- ◆ Nearly 42% farmers in the project area perceived some positive change contrary to 6% farmers who felt a positive change in the non project area during the period 2007-2009. Nearly 4% of the farmers were able to realize an increased farm production, more opportunity for employment and there by increased income after the project intervention. More than 15% of the project area farmers found that besides the tank/canal restoration works taken place, WUA has been formed, necessary training is provided, with the water saved more area has come under ayacut, new technologies such as SRI, precision farming, MIS, farm

ponds, introduction of new crops etc area available to them now.

- ◆ Nearly 4% of the farmers were confident that the positive changes they perceived can be sustained, and it is possible to further expand, with united efforts of all stakeholders, WUA/ other farmers and PRI. One segment (19.23%) felt that they can sustain the change with the technical and marketing support from government or an external agency. For nearly 62% of the group, sustainability of the change was possible only with incentives, and technical and marketing interventions from the government.

In all, a positive change has been initiated by the project through restoring the water bodies, introducing farmers to hybrid and high yielding crops, MIS and other technologies, and marketing channels. It has demonstrated how judiciously they can use water and get a better income from each drop. Besides, the project has also initiated a change in the mindset of officials to go to the public and work along with them.

**- Institute of Sustainable Development,
Chennai.**

More Income Per Drop of Water



5. SINGLE WINDOW INFORMATION CENTER (SWIC)

- a conduit for convergence

5. SINGLE WINDOW INFORMATION CENTERS - a conduit for convergence

IAMWARM Project is a unique project, in which, 8 Government Departments are implementing various activities. The programme was fabricated such a way that each Department has to implement their activities in convergence with the activities of other Department.

Genesis:

As a measure to improve the service delivery of field officials of the implementing Departments, Change Management initiatives were taken up



among the AED Engineers, at first, to rejuvenate the underlying work ethics through series of soul searching workshops.

They were motivated to take up the mantle of Socio-Engineer role to narrow down the gap between farming community and the Government Machinery. One such motivated AED – CMG Engineer in Tiruppur District (Palar



Sub Basin) convinced the farmers of his Good Samaritan attitude and they came forward to offer common place for the officials and farmers to meet and discuss issues and finding solution. This center witnessed uniform and undisputed distribution of farm inputs from various departments according to the crops. The farmers were motivated to go for water saving measures such as adoption of Drip Irrigation Systems. This is how the WARRAM Centre in Koduvai was born. Value addition to the harvested pulses was given. The graded and packaged pulses were sold at higher prices in Tiruppur Ulavar Santhai, fetching good returns to the farmers.

SWIC:

On seeing the success of convergence concept, Convergence workshops at district level were conducted to motivate the officials to replicate such models in other sub basins. Each Department was advised to captain two villages in each district. Single Window Information

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Centers (SWIC) have been formed in 216 Model Villages in Phase I and Phase II (25) sub basins.



Concept:

It acts as a common platform for the officials and farmers to meet and discuss issues and finding solution

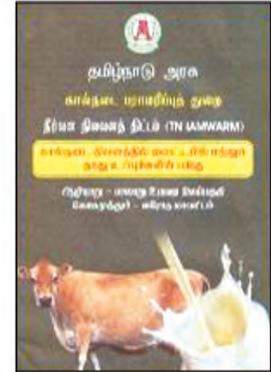


Venue:

A common place offered by the Villagers, for free of rent, in the vicinity of the model village - May be a room in the Panchayat office/ Community Hall / Veterinary Clinic.

Purpose:

- To bridge the gap between the farmers and officials (farmer friendly)
- To disseminate the knowledge / technology into the society
- To make the periodical visits of the officials more effective



In house of SWIC:

Information brochures of all Department activities

- Brochures on subsidy details, technical know-how, etc. – not only of IAMWARM Project – But all other schemes should also be placed
- Success stories of other places



schedule of the visiting officers

- This is a table showing the Name, Date, time, mobile Nos. of the officers who regularly visit SWIC
- This has to be displayed OUTSIDE the SWIC so that farmers can contact the officer over phone at any time

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6. ARD STUDY TOUR

6. ARD STUDY TOUR

Under the TN IAMWARM Project, the Concept of Integrated Water Resources management in a Multi - Sectoral, Multi -Stake Holder framework has been established and the first rays of success have become visible.

In this context the Agriculture & Rural Development Department of the World Bank proposed a study tour to Tamil Nadu to learn from the best practices being adopted in the state. A group of 40 Bank staff (Sector Managers, Project leaders and sector Specialists) and a few representatives from selected partner agencies such as the Food and Agricultural Organization (FAO) and the International Fund for Agricultural Development (IFAD) visited TN IAMWARM on April 23rd and 24th April 2010.

They had an opportunity to study system of rice intensification and other approaches to improving the water efficiency of agriculture in the Tamil Nadu- IAMWARM. The World Bank wanted the study tour to include meetings and/

or seminars with associated authorities and beneficiaries in addition to site visits and facilitated discussions to draw out the lessons from IAMWARM.

The MDPU Team in collaboration with the Center of Excellence for Change had organized an Exhibition depicting the significant breakthrough with live samples, models, photographs on Rehabilitation, SRI, Water Management, Crop



Diversification, Marketing Initiatives Fisheries, and Animal Husbandry Components with (e-Velanmai) I.T based Agricultural Extension Models.



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Six Round Tables with practitioners from various sectors, provided the clarifications sought by the visitors.



The Visitors saw a video film “Neerundu Nilamundu” show casing the Change initiatives

taken up under the Project towards improving service delivery, convergence and Community participation. It was followed up by a transformation Journey-of “I, We, Ours”. This concept attracted the dignitaries and they expressed their heartfelt support to these initiatives.

On the Second Day the team Visited the Varahanadhi Sub-Basin and saw for themselves the development brought out by IAMWARM in the Agri Marketing, Agri Business Centre at Kooteripattu, SRI, Precision Farming Agri Mechanisation and Community Collaborative Water Management at Kilmambattu and Thiruvampattu. The team was warmly received by the local community every where and had



good interaction with them. The observations of the delegates are presented below.

Visitors from Africa & Japan

A team of 18 from six African Nations and 2 from Japan organized by the Center of Excellence for Change visited the Project in June 2010. Their primary purpose was to study how SRI was upscaled. But they were amazed by the multisectoral innovations in Agri Marketing, Drip Irrigation, Agricultural Mechanisation and Community Collaborative Water Management and have discussed adoption of the same in Africa.

“We had very good learning experience. Thank you for all your efforts. Very well organized and very much impressed by the Project”.

Simeon K. Ehui, Sector Manager, SASSD,
WB, Washington DC.

This has been a very inspiring journey. I started as a cynic, and have ended not as a cynic, but as one who continues to question. My main question relate to how transferable the management of social capital that we saw here would be to the African Region. I also want to see how SRI performance under African Conditions. I also welcome Mr. Nayar’s views on the role and limits of price incentives in managing water, and look forward to learning more about that. Thanks.

Karen Brooks, Sector Manager, Africa
Region, WB, Washington DC

“Wonderful to see how a process of behavioral and organizational change is being undertaken and articulated.

Good to hear the progress on co-ordination across Government Departments to more effectively respond to Community demand.”

Kevin Crockford, Senior RD Specialist,
New Delhi, SAR-CO.

Excellent Presentation

The take away for me transferring the World Bank water engineers into change agents, - with participatory & community spirit.

Bonnie Kramer, Senior Management
Consultant, Washington DC, HRSEC

Most informative and would like to build capacity of project teams as well as policy makers on the transformation process for a change in attitude from ‘I’ to ‘we’ & finally to ‘Ours’.

Would like to have source of the transformation training.

Victoria Chinwe Agu, Third National
Fadama Development Project (Fadama-III),
Abuja, AFR-Counterparts

I am very impressed with what has been done. I believe it can be replicated nation-wide and has built-in sustainability. I recommend the project as evidence of best practice.

Ayodele Adedayo Adeniyi,
Third National Fadama Development Project
(Fadama-III), Abuja, AFR-Counterparts.

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7. CHANGE INITIATIVES

7. CHANGE INITIATIVES

The PAD of TN IAMWARM Project (Annex 10 Safe Guarding Policy Issues) reads that “One issue that has remained the focus since the TNWRCP, is the importance of changing the mindset amongst government officials of the WRO to better mainstream environmental and social issues. In the multidisciplinary approach (especially the formulation of MDPU) of the proposed project, Agriculture, Horticulture, Agriculture Engineering, Agriculture Marketing, Fisheries and Animal Husbandry Departments are actively involved. It is critical that these line-Departments are able to function as effective facilitators who can link farmers/communities and their WUAs effectively with a range of service providers both in the public and private sectors. For this, a number of alternative and innovative capacity building interventions will be designed, piloted and institutionalized through the project. This will include observation study tours, stakeholder workshops, and Human Resource Development Programs covering results-based management, participatory monitoring and learning, leadership and team building, conflict management etc.”

The Change Initiatives were introduced in the form of Team Building Workshops in Villupuaram, Krishnagiri and Pudukkottai districts. District level Convergence workshops were held in 14 districts. Change Management Workshops were held for AED and the process

for WRD has just been initiated. These efforts have slowly but steadily brought in a changed mindset among the multisector professionals at the field level and the team spirit gradually emerged. This enabled joint field visits and complementing the roles of each other which brought about improved credibility to the whole team. Enthused by the community recognition and appreciation by the MDPU to these efforts the Professionals in the eight sectoral departments have come out with an idea of coming together under an informal institution and called them as Center of Excellence for Change.

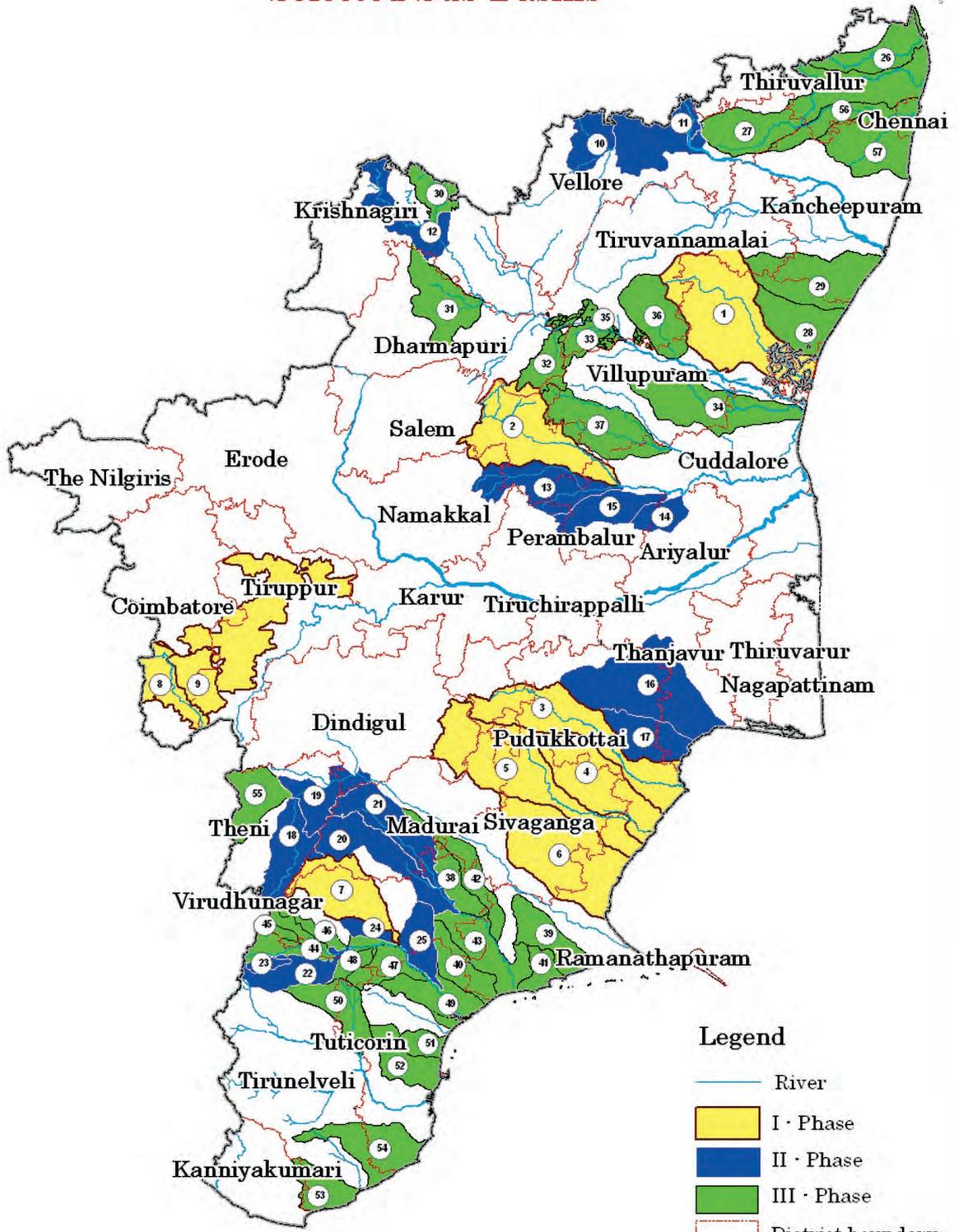
From the Project’s point of view it is an institutional innovation which can help project implementation and paves way for the sustainability of the Convergence of Water and Food Professionals not only for the remaining period of the Project but even beyond projects. The Voluntarism of professionals involved in agriculture and water management can help the state to continuously attempt improved service delivery to the community and enhance the credibility of Government officials before the farming public. The Center of Excellence has shown keen interest and continued involvement to make the Single Window information centres and Community Collaborative Water Management more successful. They have other initiatives of educating School Children, Youth in Colleges etc. The Project can provide technical inputs and guidance for their efforts to keep their spirits soaring.

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8. GIS PROJECT MAPS

IAMWARM PROJECT Selected Sub Basins



More Income Per Drop of Water



I Phase

1. Varahanadhi
2. Upper Vellar
3. South Vellar
4. Pambar
5. Manimuthar
6. Kottakkarayar
7. Arjunanadhi
8. PAP - Aliyar
9. PAP - Palar

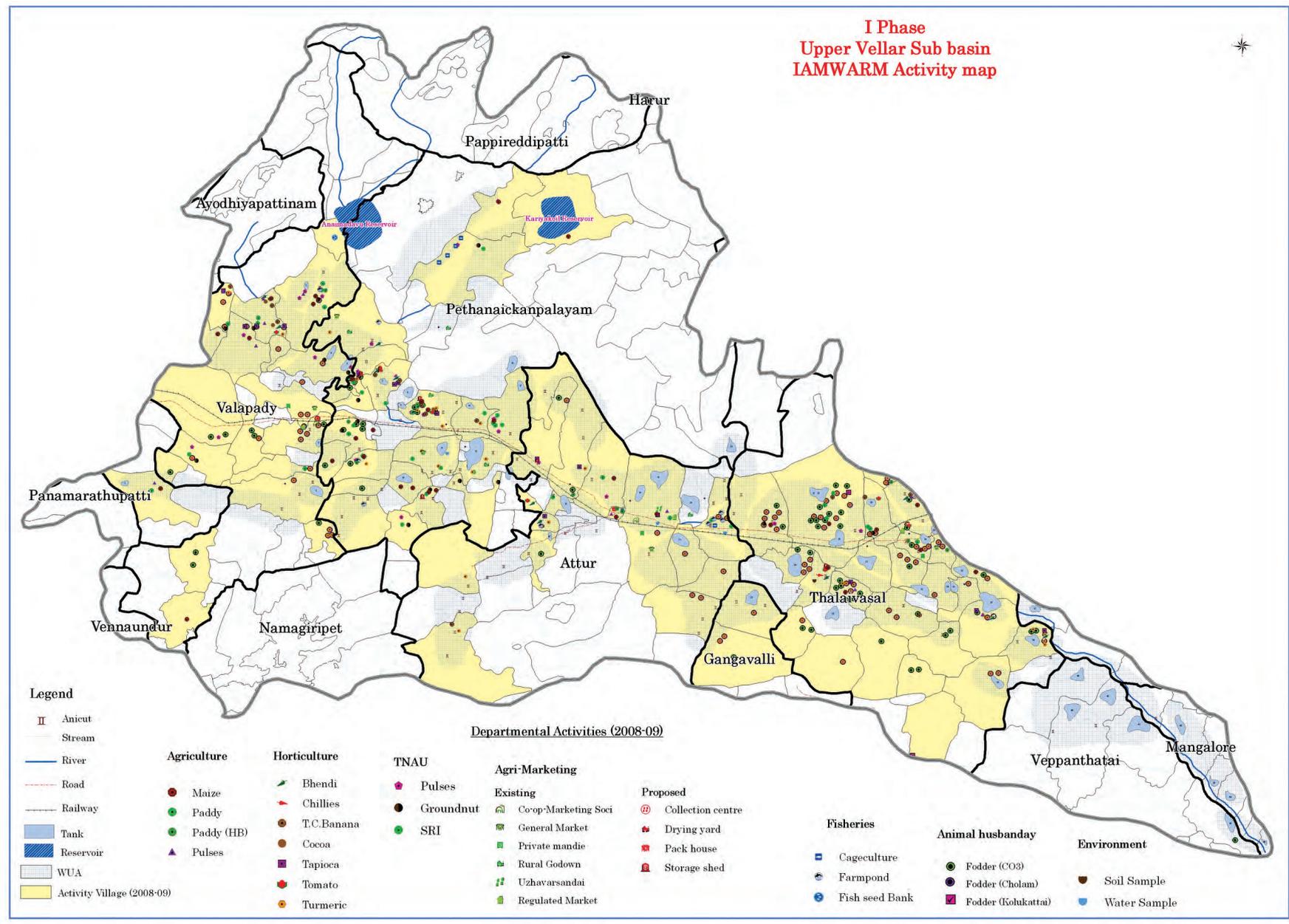
II Phase

10. Koundinyanadhi
11. Poiney
12. Upto Krishnagiri (Ponniyar)
13. Swethanadhi
14. Anaivari odai
15. Chinnar
16. Agniyar
17. Ambuliyar
18. Upper Vaigai
19. Varattar - Nagalar
20. Upper Gundar
21. Therkar
22. Nichabanadhi
23. Kalingalar
24. Sindapalli Uppodai
25. Senkottariyar

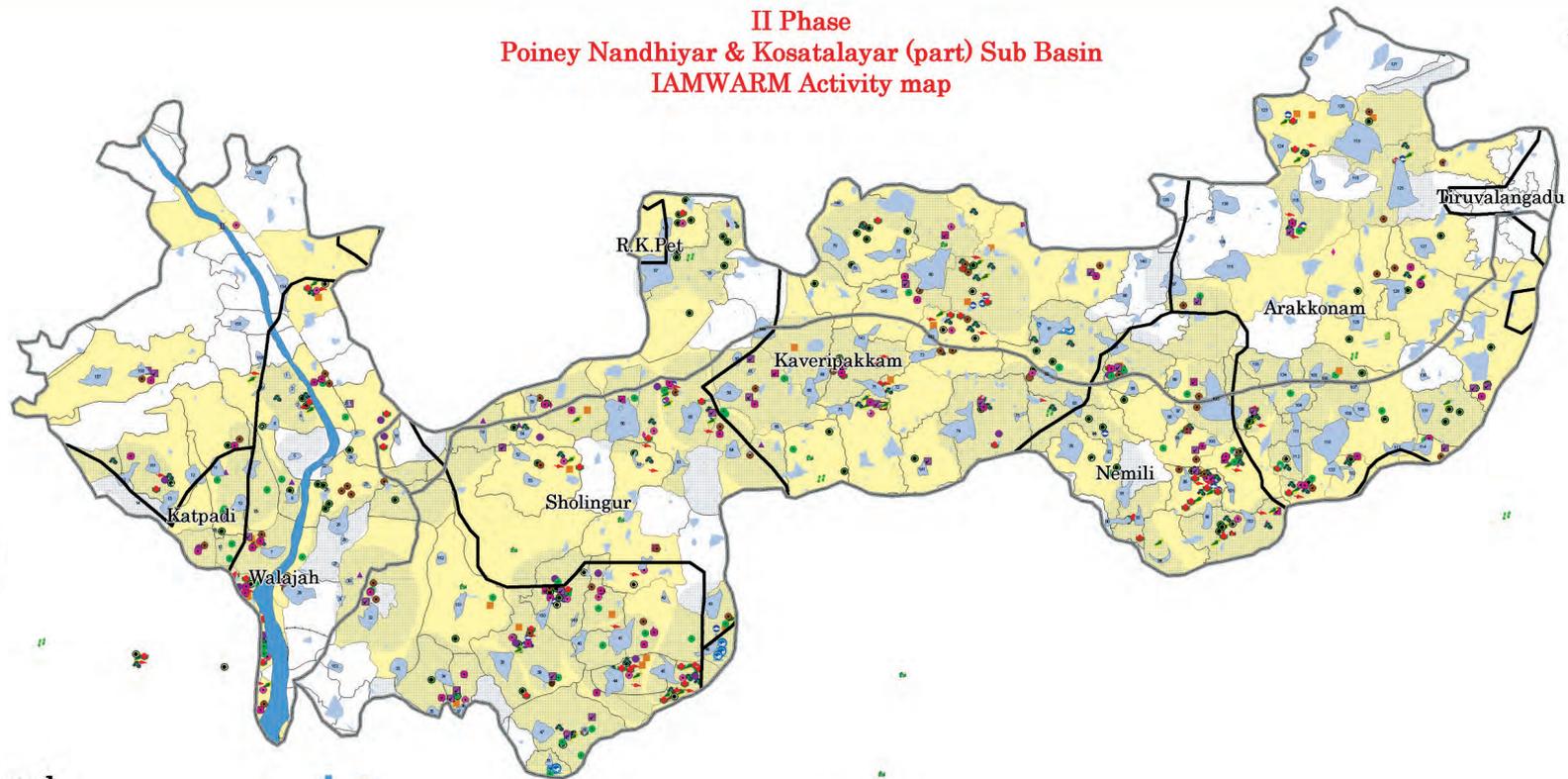
III Phase

26. Araniyar
27. Kosasthalaiyar
28. Nallavur
29. Ongur
30. Markandanadhi
31. Kambainallur
32. Kovilar (Kottapattikallar)
33. Pambanar Verattar
34. Gadilam
35. Pambar to Tirukoilur
36. Thurinjalar
37. Gomukinadhi
38. Kanal odai
39. Uthirakosamangai
40. Vembar
41. Palar
42. Girdhamal
43. Lower Gundar
44. Deviar
45. Nagarier
46. Sevalaperiyar
47. Uppathur
48. Vallampatti
49. Main River (Vaippar)
50. Uppodai
51. Hanumannadhi (Nambiyar)
52. Karumeniar
53. Salikulamer
54. Korampallam Ar.
55. Theniar
56. Cooum (City area)
57. Adyar (City area)

**I Phase
Upper Vellar Sub basin
IAMWARM Activity map**



**II Phase
Poiney Nandhiyar & Kosatalayar (part) Sub Basin
IAMWARM Activity map**



Legend

- II Anicut
- Road
- Railway
- Village
- Tank
- River
- Tank (IAMWARM Activity)
- Activity Village (2008-09)
- WUA

Departmental Activities (2008-09)

- | | | | | | |
|-------------|--------------------|---------------------|-------------------------------|------------------------|--------------------------|
| TNAU | Agriculture | Horticulture | Agri-Engineering | Agri-Marketing | Animal Husbandary |
| ● Groundnut | ● Groundnut | ● Brinjal | ● Drip Irrigation | ● Agri Business Center | ● Fodder |
| ▲ Maize | ● Maize | ▲ Chillies | ◆ Sprinkler Irrigation | ■ Drying Yard | ■ Veterinary Unit |
| ■ Pulses | ● Paddy (HB) | ● Jasmine | | ■ Drying yard | |
| ● SRI | ■ Pulses | ■ Mango | Fisheries | ■ Regulated market | Environment |
| | ● SRI Paddy | ● T.C. Banana | ● Farm Ponds | ■ Uzhavar sandies | ● Soil sample |
| | | ■ Bhendi | ● Fish Seeds Rearing in Cages | ■ Weekly sandies | ● Water Sample |
| | | ● Tomato | | | |
| | | ● Yam | | | |

More Income Per Drop of Water



**III Phase
Hanumanadhi Sub basin
WRD - Water User Association
(Ayacut Area)**



Legend

- II Anicut
- Stream
- Supply Channel
- Tank (IAMWARM)
- Tank
- Village
- Water User Association

