ANNUAL REPORT (2006 - 2007)

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
Krishi Vigyan Kendra	Office	FAX	arsramnad@tnau.ac.in
Coastal Saline Research Centre	04567-230250	04567-	
Tamil Nadu Agricultural University	230359	230250	
Collectorate Complex			
Ramanathapuram - 623 503			
Tamil Nadu			

1.2 . Name and address of host organization with phone, fax and e-mail

Address	Telephone	E mail	
	Office FAX		
Tamil Nadu Agricultural University	0422-6611233	0422-6611433	dee@tnau.ac.in
Coimbatore - 641 003			

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Residence	Telephone / Contact	
		Mobile	Email
Dr. G. Srinivasan	No:6, Aranganatha Perunal Koil St, Sriviilliputhur – 626 125	9244340004	gsagrisearch@rediff.com

1.4. Year of sanction: April 2004

1.5. Staff Position (as on 30th September 2007)

SI. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Programme	Dr. G.	Associate	Agronomy	12000-	12.05.06	Permanent	OBC
	Coordinator	Srinivasan	Professor &		420-			
			Head		18300-			
					13680			
2	Subject	Dr. A.	Associate	Horticulture	12000-	25.07.07	Permanent	SC

Matter	Sakunthalai	Professor	420-		
Specialist			18300-		
			13680		

SI. No	Sanctioned post Subject	Name of the incumbent Dr. E.	Designation Associate	Discipline Breeding	Pay Scale with prese nt basic	Date of joining	Permanen t /Tempora ry	Categor y (SC/ST/ OBC/ Others)
	Matter Specialist	Murugan	Professor	J	-420- 18300 - 13260	7	t	
4	Subject Matter Specialist	Dr. M. Murugesh	Associate Professor	Forestry	12000 -420- 18300 - 12420	10.05.0 7	Permanen t	SC
5	Subject Matter Specialist	Dr. M. Baskar	Assistant Professor	Soil Science	8000- 275- 13500 -9650	10.12.0	Permanen t	OBC
6	Subject Matter Specialist	Th.K. Ramakrish nan	Assistant Professor	Extension	8000- 275- 13500 -8275	14.05.0 7	Permanen t	OBC
7	Subject Matter Specialist	Dr. G. Sasidevi	Assistant Professor	Food Science	8000- 275- 13500 -9375	11.06.0 7	Permanen t	SC
8	Programme Assistant	Th. K. Senguttuvan	Programme Assistant (Technical)	Entomolog y	5500- 175- 9000- 5500	06.06.0 7	Permanen t	SC
9	Computer Programmer	-	-	-	-	-	-	-
10	Farm Manager	Tmt.M. Jeyanthi mala	Farm Manager	Agricultur e	5500- 175- 9000- 5500	06.06.0 7	Permanen t	SC
11	Accountant / Superintende nt	Th. K. Nagarajan	Superintende nt		6400- 175- 9200- 6400	27.02.0 7	Permanen t	OBC

12	Stenographe	Th. D.	Junior		3200-	15.04.0	Permanen	OBC
	r	Senthilkum	Assistant		85-	4	t	
		ar			4900-			
					3625			
13	Driver	Th. M.	Jeep Driver		3200-	29.08.0	Permanen	OBC
		Mariyapilla			85-	7	t	
		i			4900-			
					3200			
14	Driver	Th. L.	Mechanic		4000-	24.08.0	Permanen	OBC
		Thangavelu			100-	7	t	
					4900-			
					4000			
15	Supporting	Th. M.	Office		2550-	13.06.0	Permanen	OBC
	staff	Durai	Assistant		55-	7	t	
					2600-			
					65-			
					3200-			
					2550			
16	Supporting	-	-	-	-	-	-	-
	staff							

1.6. Total land with KVK (in ha)

Sl.No.	ltem	Area (ha)		
1.	Under Buildings	1.5		
2.	Under Demonstration Units	1.0		
3.	Under Crops	9.0		
4.	Orchards/Agro-forestry	0.4		
5.	Others	4.0		
6.	CSRC Farm at ARS, Paramakudi	26.0		
	Total	41.9		

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1.7. **Infrastructural Development:**

A) Buildings

S.	Name of	Source		Stage					
No.	building	of funding	Complete				Ţ	ncomplete	
		Start Date	Completion Date	Plinth Area m ²	Cost	Start Date	Plinth Area	Cost	

1.	Administrative building	ICAR- KVK	30.08.02	31.05.03	365	45 lakhs			
2.	Farmers Hostel		-	-	-	-	-	-	-
3.	Staff Quarters (6)		-	-	-	-	-	-	-
4.	Demonstration units (2)		1.08.04	31.03.05	2153	1.87 lakhs	-	-	-
5.	Any others	-	-	-	-	-	-	-	-

(B) Vehicles, Equipments and AV aids

S. No.	Type of vehicle	Model	Actual cost in Rs.	Total kms run	Present
					status
1.	Jeep	Bolero-LX	4,96,711	20,726	Good
2.	Two wheeler	Hero Honda CD Deluxe	38,003	700	Good

C) Equipments & AV aids

S. No.	Name of the Equipment	Year of Purchase	Cost	Present condition
1.	Spectrophotometer	2005	75072.00	Good
2.	Flame photometer	2005	36720.00	Good
3.	pH meter	2005	7344.00	Good
4.	Conductivity Bridge	2005	7344.00	Good
5.	Physical balance	2005	28080.00	Good
6.	Chemical balance	2005	91520.00	Good
7.	Water distillation still	2005	26117.73	Good
8.	Kjeldahl Digestion & distillation	2005	24589.00	Good

9.	Shaker	2005	44076.60	Good
10.	Refrigerator	2005	19950.00	Good
11.	Oven	2005	8862.21	Good
12.	Hot plate	2005	1875.60	Good
13.	Grinder	2005	11582.00	Good
14.	Water Purifier	2005	7390.00	Good
15.	Pelicon Digestion & Distillation unit	2005	148086.00	Good
16.	Lab set up	2005	319650.00	Good
17.	Chemicals & Glasswares	2005	249990.00	Good
18.	Petty Items	2005	19913.00	Good
19.	Soil processing	2005	50000.00	
20.	AV Aids			
	Digital Camera	2006	19,990	Good

1.8. A) Details of SAC meeting conducted in the year

SI. No.	Date	Number of Participants	Salient Recommendations	Action taken
	23.02.07	Officials : 9 Farmers : 4		
1.		Dr. C.V. Sairam Senior Scientist, Zonal Coordinating Unit, Bangalore	Requested the AGM, NABARD to Collaborate with training programme in order to provide Micro financial activities to the beneficiaries.	AGM, NABARD, Ramnad was involved in the Sensitization training programme on Marketing and the LDM, IOB was involved in the KVK and NHM training
			Requested to Present the OFT, FLD activities by the individual scientist with respect to their activities during the SAC Annual	The presentation mode will be changed in the forthcoming SAC meeting onwards

review report presentation.	
Area under pulses may be increased	FLD farmers of previous year were motivated to sell their harvested produce among the farmers of their village strictly for seed purpose around 40 Kg of pulses (Black gram – Vamban 3) Greengram (VBNGg3) seeds were distributed to the farmers under seed village scheme
Since Rice fallow pulses is not possible under Rainfed conditions, new technologies may be refined /schemes may be introduced to take the ground water in cooperative movement along with the Dept. of Agrl. Engineering	made to purpose a schemes under the effective utilization of ground water along with the officials of the Department of Agricultural Engineering,

SI. No.	Date	Number of Participants	Salient Recommendations	Action taken
2		Th. Khader Mohaideen JDA, Ramnad	There were 256 TANWEP Groups in Ramnad District, the training programmes may be given for them	Vermicompost training was offered to 50 Nos. of farmers of Nainamaraikkan village under TANWEP. The training on cultivation techniques, and Post harvest technology on chilli was given to 200 chilli growers under NHM
			Promoting pre monsoon sowing is essential for the Ramnad district	Farmers were being motivated to follow premonsoon sowing through OFT, FLD, On & OFF campus and under seed village schemes
3.		Dr. M. Ashokan Regional Deputy Director (Veterinary) Ramanad	Fodder Grass may be suggested to meet out the fodder requirements of the Goat and Cattle.	Suitable fodder grass will be identified so as to meet out the needs.
4.		Th. S. Shenba gamurthi Wild Life Warden,	Saline tolerant Green manure crops may be recommended since it improves land productivity	Suitable green manure crop will be identified

Ramn	ad					
	t c c t s c c t v	Subabul scheme is a the Department of It can be used for the the farmers and Dr. Conting Senior Scientist, Coordinating Unit, suggested that the su coconut as intercroptested through OFT was proved by excellent result.	Forestry, it benefits of LV. Sairam, Zonal Bangalore, babul with p may be because it	The intercrop with subabul v programme		
	t	Improved varietion technologies ma recommended for cultivation	ay be	The in-depth made to technologies.	discussions identify	

SI. No.	Date	Number of Participants	Salient Recommendations	Action taken
5.		Th. D. Murali mohen, AGM, NABARD, Ramanathapuram	Training materials like Booklets, folders have to be distributed for the retrieval purpose	Vocational training manuals viz., Mushroom, vermicompost and Food processing were distributed during the vocational training programme. The Valarum Velanmai, Journal cultivation techniques on Amla, Mango, Cashew were distributed to the trainees under NHM training
			Machine free environment has to be introduced. The Demo field cost will be provided by the NABARD	The necessary arrangements will be made
			Rural Innovation Fund will be utilized for the suitable farmers.	The farmers and trainees have been motivated in such a way to utilize the rural innovation fund during the training programmes
6.		Th. T. Soma sundram Farmer, Ramnad	The Govt can supply paddy seed cum fertilizer drill sowing machine to each Panchayat Union office for the benefit of the farmers.	The necessary arrangements will be made
7.		Tmt. V. Vasuki	More dryland technologies	On campus, Off Campus trainings

	Farm Woman	are needed	will be given during the months of
	Achunthanvayal		October and November 2007.
	Ramanathapuram		
		Proper control measures for	FLD on Rat control will be
		Rat	conducted during the year 2007.
		Suitable processing technologies for paddy may be provided so as to avoid wastage and labour constraints	up uniform sowing during seed

SI.	Date	Number of	Salient Recommendations	Action taken
No.		Participants		
8.		Tmt. K. Kanitha	Suitable crops for wasteland	Jatropha seedlings are being
		Farm Woman		supplied to the farmers
		Muthunal		through DPAP scheme
		Ramanathapuram		
9.		Th. Josephdas	Jasmine cultivation	INM and IPM under OFT
		Farmer	technologies may be	
		Muthupettai	provided periodically and Dr.	
		Ramanathapuram	C.V. Sairam advised to make	
		,	tie up between the Jasmine	
			growers and NHM	

Tamil Nadu Agricultural University Krishi Vigyan Kendra Coastal Saline Research Centre, Ramanathapuram **Third SAC Meeting (23.02.2007)**

The Third Scientific Advisory Committee Meeting of the KVK, Coastal Saline Research Centre, Ramanathapuram was held on 23.02.2007. Dr. C.V. Sairam, Senior Scientist, Zonal Co-ordinating Unit, Bangalore chaired the meeting. Dr. Durai Singh, Programme Co-ordinator, KVK Madurai participated in the programme. Dr. G. Srinivasan Programme Co-ordinator, KVK Ramnad presented the Recommendations and Action taken in addition to the Annual review report of the Last year SAC meeting. Earlier Dr. T. Abdul Razak, Subject Matter Specialist (Agrl. Ento) welcomed the gathering and the official and non-official members were introduced by the Chairperson. The members were actively involved in the meeting and brought out the fruitful suggestions for the well being of the farmers and the up gradation of the KVK. Finally Dr. A. Sakunthalai, Subject Matter Specialist (Agrl. Extn) proposed the Vote of thanks.

The reporteurs Mr. K. Ramakrishnan, Assistant Professor (Agrl. Extn) and Dr. M. Baskar, Assistant Professor (Soil Science) helped in the compilation of the proceedings.

The members of the SAC meeting are as follows.

- 1. Dr. C.V. Sairam, Senior Scientist, Zonal Co-ordinating Unit, Bangalore.
- 2. Dr. R. Durai Singh, Programme Coordinator, KVK, Madurai
- 3. Thiru. Khadar Mohaideen, Joint Director of Agriculture, Ramanathapuram.
- 4. Dr. M. Ashokan, Regional Deputy Director, (Veterinary) Ramanathapuram
- 5. Th. S. Shenbaga Moorthi, Wild Life Warden, Ramanathapuram
- 6. Dr. M. Rajamani, Scientist, CMFRI, Mandapam, Ramanathapuram.
- 7. Th. R. Alagarsamy, Executive Engineer, Department of Agriculture Engineering, Ramanathapuram.
- 8. Th. R. Elamvazhuthi, Assistant Director of Fisheries, Collectorate Complex, Ramanathapuram
- 9. Thiru. D. Murali Mohan, Assistant General Manager, NABARD, Ramanathapuram.
- 10. Thiru. T. Somasundaram, S/o. Thangachamy 45/35, Ramasamy Kothanar East Street, Ramanathapuram.
- 11. Tmt. V. Vasuki, W/o. Vijayakumar, Achunthanvayal (post) Ramanathapuram.
- Tmt. K. Kanitha, W/o. E.C.K. Agilan, Mudhunal, Soorankottai (Post), Ramanathapuram dist 12.

13. Thiru. Joseph Das, Muthupet, Ramnad

Action taken and Recommendation of 2006-2007

The Annual action taken report was presented by Dr. G. Srinivasan, Programme Coordinator, KVK, Coastal Saline Research Centre, Ramanathapuram. The presentation focused the following themes.

- The On campus, Off Campus and vocational trainings were conducted on need basis. The duration of the training programmes varies from one day to one week. The farmers, farm women, Rural Youth and SHG members were the beneficiaries of the programmes. In addition to the farmers training, capacity building training to the extension personnels were also conducted with a focus to update their knowledge on the recent emergencies in the Agricultural Research System on regular basis.
- There were 17 courses offered to 485 beneficiaries including farmers, farm women, rural youth and SHG members on various disciplines like crop production, Horticulture, Home Science, Value addition, Plant protection, Mushroom cultivation and composting technologies through On campus training.
- In such a way 45 courses to 1166 beneficiaries and 26 courses to 2132 beneficiaries with respect to Off campus and vocational trainings were organized.
- For extension personnels, 13 courses were offered to 285 officials of the State Department of Agriculture, State Department of Horticulture in Ramanathapuram district. consultation with the Joint Director of Agriculture, Ramanathapuram the topics for the training programmes were chosen.
- Linkage training programmes were also conducted with the Line departments, NHM, NGO's and other similar organizations. Under this training, 83 courses were offered to 3412 beneficiaries.
- In continuation to the training programmes, he explained the OFT and FLD activities. Under OFT programme, the crops and technologies were tested under 45 locations on paddy (7), Cotton, Groundnut (16), Blackgram (12), Chilli (5) and Jasmine (5)

Like wise under FLD programme, the crops and technologies were popularized through 114 demonstrations on Groundnut (35), Green gram (13), Blackgram (13) Cotton (20), Chilli (13), Watermelon (5), Pumpkin (5), Ashgourd (5) and Senna (5)

The presentation also focused and the other popularization mechanisms like Mass media, Advisory services, Diagnostic field visit etc. besides the News letter of KVK, CSRC, Ramnad.

During the Third Scientific Advisory Committee Meeting the official and non official members have discussed about various issues and derived solutions for the same with a focus to prepare Action plan for the year 2007-2008. The recommendations and action taken for the same has been presented here under.

Action taken and Recommendation

S. No	Name and Address	Recommendations	Action will be taken during 2007-2008
1.	Dr. C.V. Sairam Senior Scientist Zonal Co-ordinating Unit Bangalore	1. Requested the AGM, NABARD to Collaborate with training programme in order to provide Micro financial activities to the beneficiaries.	Will be discussed with AGM NABARD while conducting the training programmes.
		2. Requested to Present the OFT, FLD activities by the individual scientist with respect to their activities during the SAC Annual review report presentation.	The presentation mode will be changed in the forth coming SAC meeting onwards.
		3. Area under pulses may be increased	Farmers will be motivated in right way to cultivate pulses as second crop.
		4. Since Rice fallow pulses is not possible under Rainfed conditions, new technologies may be refined /schemes may be introduced to take the ground water in co-operative movement along with the Dept. of Agrl. Engineering	The collaboration effort will be made to propose a schemes under the Effective utilization of Ground water" along with the officials of the Department of Agriculture Engineering, Ramanathapuram.
2.	Th. Khader Mohaideen	There were 256 TANWEP Groups in Ramnad District, the	Trainings will be provided based on their needs and

	Joint Director of Agriculture	training programmes may be given for them	Resources.
		Promoting pre monsoon sowing is essential for the Ramnad district	Farmers will be motivated to follow pre-monsoon sowing through OFT, FLD and Trainings.
3.	Dr. M. Ashokan Regional Deputy Director (Veterinary) Ramanathapuram	Fodder Grass may be suggested to meet out the fodder requirements of the Goat and Cattle.	Suitable fodder grass will be identified so as to meet out the needs.
4.	Th. S. Shenbaga Murthi Wild Life Warden Ramanathapuram	Saline tolerant Green manure crops may be recommended since it improves land productivity	Suitable green manure crop will be recommended

S. No	Name and Address	Recommendations	Action will be taken during 2007-2008
		Subabul scheme is available in the Department of Forestry, it can be used for the benefits of the farmers and Dr. C.V. Sairam, Senior Scientist, Zonal Coordinating Unit, Bangalore, suggested that the subabul with coconut as intercrop may be tested through OFT because it was proved by CPCRI as excellent result.	Since Ramnad consists 88624 ha area under coconut cultivation, it will be tried through OFT and recommended to the farmers.
		Improved varieties and technologies may be recommended for Prosopis cultivation	The suitable technologies will be identified in collaboration with the Forestry College
5.	Th. D. Murali Mohan AGM, NABARD Ramanathapuram	**Training materials like Booklets, folders have to be distributed for the retrieval purpose	**Vocational training manuals and folders have been distributed already to the beneficiaries. However the technology based leaflet and folders will be distributed in future.
		Machine free environment has to be introduced. The Demo field cost will be provided by the NABARD	*The necessary arrangements will be made
		Rural Innovation Fund will be utilized for the suitable farmers.	The suitable farmers will be identified and

			recommended for the utilization of Rural Innovation Fund.
6.	Th. T. Somasundram Farmer, Ramnad	The Govt can supply paddy seed cum fertilizer drill sowing machine to each Panchayat Union office for the benefit of the farmers.	The necessary arrange- ments will be made
7.	Tmt. V. Vasuki Farm Women Achunthan Vayal Ramanathapuram	More dryland technologies are needed	Technologies will be recommended through On & Off campus trainings.
		Proper control measures for Rat	Integrated Rat control measures will be provided through trainings
		 Suitable processing technologies for paddy may be provided so as to avoid wastage and labour constraints 	■The farmers will be motivated to take up uniform sowing inorder to use paddy harvester and Thrashing machines.

S. No	Name and Address	Recommendations	Action will be taken during 2007-2008	
8.	Tmt. K. Kanitha Farm Women Muthunal Ramanathapuram	Suitable crops for wasteland	Jatropha / suitable crops will be recommended after analyzing the soil and water qualities.	
9.	Th. Joseph Das Farmer Muthupet Ramanathapuram	Jasmine cultivation technologies may be provided periodically and Dr. C.V. Sairam advised to make tie up between the Jasmine growers and NHM	The periodical cultivation technologies will be provided through trainings and OFT.	

2. DETAILS OF DISTRICT (2006-07)

Major farming systems/enterprises (based on the analysis made by the KVK) 2.1

S. No	Farming system/enterprise
1.	Rainfed rice

Description of Agro-climatic Zone & major agro ecological situations (based on soil and 2.2 topography)

S. No	Agro-climatic Zone	Characteristics
1.	Sournthen zone	Erratic distribution of
		monsoon rains

S. No	Agro ecological situation	Characteristics
1.	Ramanathapuram district is situated on the south - eastern	Coastal climate
	coast of the Indian peninsula between 11º & 12º N latitude	
	and 77º 28' & 78º 50' E longitude. Ramanathapuram	
	occupies a total geographic area of 4,68,957 ha with eleven	
	blocks in seven taluks. This district comprises a population	
	of 2,60,365 and 8,75,522 of urban and rural population.	

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Sandy soil	Coarse texture, low fertility	7328
2.	Clay soil	Fine texture, high water holding capacity with water logging	182463
3.	Sandy clay soil	Ideal texture	22138
4.	Alluvial soil	High fertility	43769
5.	Sandy loam soil	Moderately well drained soil	63602
6.	Coastal alluvial soil	Saline	71357
7.	Red soil	High iron and alumina	18390
	Total		408957

Area, Production and Productivity of major crops cultivated in the district 2.4.

S. No	Crop	Area (ha)	Production (L.MT)	Productivity (Kg/ha.)
1.	Paddy	128893	3.465	2688 – Paddy
			2.311	1792 – Rice
2.	Millets			
	Cholam	2297	0.007	300
	Cumbu	733	0.004	600
	Ragi	1377	0.023	1681

	Maize	69	0.001	1800
	Other Millets	794	0.003	400
3.	Pulses			
	Blackgram	2741	0.0075	275
	Greengram	181	0.0005	250
	Cowpea	727	0.0018	250
	Horsegram	469	0.0011	240
4.	Oil Seeds			
	Groundnut	6970	0.114	1636
	Gingelly	1631	0.004	240
	Sunflower	20	-	-
5.	Sugarcane	269	0.0296	11000
6.	Cotton	4217	0.0744 (L. Bales)	300 (lint)
7.	Coconut	8864	2.036	13125 (nut/ha)
8.	Chillies	18625	-	-
9.	Coriander	816	-	-

2.5. Weather data

Month	Rainfall (mm)	Temperature ⁰ C		Relative
		Maximum	Minimum	Humidity (%)
October 2006	406.6	30.3	28.1	87.3
November	421.5	31.5	30.2	88.6
December	0.0	31.1	29.8	87.9
January 2007	60.8	32.1	30.2	85.9
February	28.7	32.6	30.6	84.9
March	0.0	35.4	33.6	79.8
April	0.0	36.2	34.9	76.9
May	1.2	35.9	35.4	77.1
June	0.0	32.5	30.5	79.5
July	1.0	33.4	31.8	80.2
August	25.2	32.8	31.7	84.6
September	56.8	31.1	30.8	87.2

Production and productivity of livestock, Poultry, Fisheries etc. in the district 2.6.

Category	Population	Production	Productivity
Cattle	-		
Crossbred	58007	-	-
Indigenous	72888	-	-
Buffalo	3468	-	-
Sheep			·
Crossbred	-	-	-
Indigenous	245334	-	-
Goats	236786	-	-
Pigs			
Crossbred	-	-	-
Indigenous	2821	-	-
Rabbits	412	-	-
Poultry			
Hens	-	-	-
Desi	335526	-	-
Improved	-	-	-
Ducks	415	-	-
Turkey and others	1311	-	-

Category	Area	Production	Productivity
Fish	-	-	-
Marine	-	-	-
Inland	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

2.7 Details of Operational area / Villages

S. N o	Taluks	Blocks/groups of villages	Major crops & enterprises being practiced	Major problems identified	Identified Thrust Areas
1.	Kadaladi	Block- Kadaladi Villages: Appanur Sayalgudi Sikkal Keelachelvanur Melachelvanur Keela sirupothu Mela sirupothu	1. Paddy	 Non-availability of short duration varieties Stem borer incidence Leaf folder incidence Ear head bug incidence Blast incidence Zn So₄ deficiency Low yield 	 Short duration varieties suitable for rainfed ecosystem Integrated Pest and disease management practices to control identified pest problems. Integrated nutrient management practices
			2. Cotton	 Stem weevil Boll worm Alternate variety for LRA 5166 Single season crop 	 IPM practices to overcome the pest incidence Introduction of SVPR 2 cotton variety

	Kadaladi		 3. Oil seeds Groundnut Gingelly 4. Pulses Green gram Black gram Cowpea 	1.Leaf minor 2.Root grub 3.Yield reduction due to ill filled pod	Gypsum application INM
			5. Coconut	Erioyphid miteLow yield	 Introduction of suitable biological control measures INM
			6.HorticultureChilliCorianderSapota	 Fruit rot Aphids Lack of knowledge on cultivation techniques 	Integrated Pest Management for sucking pest
			 Enterprises Animal husbandry Cattle Goat & sheep rearing 	VII. Enterprise Animal husbandry • Foot and mouth diseases • Blue tongue	 Enterprises Important diseases and their control measures Vaccination
			SHGs	 Labour migration Lack of income generating technologies 	 Creating self employment opportunities Resource based income generating trainings
2.	Kamuthi	Block-Kamuthi Villages 1. Kamuthi 2. Abiramum 3. Peraiyur 4. Kovilangulam	Crop i. Paddy	Low yieldWeed populationStem borerEar head bug	 Varietal introduction Recommendation of suitable weedicide IPM for Stem borer & Ear head bug

5. Perunali 6. Neeravi 7. Ramasamypatti	ii. Millets • Maize	Low yield	Introduction of hybrids Improved cultivation techniques to increase the yield
	iii. Oil seeds/ Pulses iv. Groundnut v. Black gram	 Low yield Leaf eating caterpillar Root grub Chaffy pod 	Integrated Pest management to control pest in groundnut gypsum application to get more yield
	vi. Cotton	Suitability of variety Stem weevil	Introduction of new varieties Suitable IPM measure for Stem weevil control
	vii. Sugarcane	Low yieldWater problem	Introduction of drip cum fertigation
	Horticulture crops	Chilli • Fruit rot	Suitable control measure for the control of fruit rot

				 Banana Low yield No high yielding Varieties for fruit purpose Fluctuations in market price 	Improved high yielding varieties for fruit purpose by replacing the local variety (leaf banana)
			 Enterprises Charcoal making Animal husbandry cattle, goat & sheep rearing 	 Animal husbandry Goat & sheep blue tongue disease 	Suitable control measures for the control of blue tongue disease
			Farm women and SHGs	 Income generating technologies 	Vermi compostMushroom production
3.	Muthukul athur	Block- Muthukulathur Villages: 1. Muthukulathur	1. Paddy	Water loggingMicro nutrient deficiency	Introduction of non-lodging varietiesINM & micronutrient application

2. Theriruveli 3. Thiruvaranar 4. Sampakulam 5. Kodumulur	• •	Stem weevil	IPM for the control of stem weevil
	3. MilletsRagiKuthiraivali	Low yield	Package of practices
	4. Oil Seeds Gingelly	Phyllody disease	Suitable control measures for phyllody disease
	5. Pulses Black gram	Lack of high yielding variety	Introduction of improved varieties of pulses
	Enterprise Animal husbandry • Goat, Sheep and cattle rearing	- Foot & mouth disease - Blue tongue - Low milk yield	 Vaccination Improved modern techniques in cattle management Balanced feed to increase the milk yield
	SHGs	- Income generating technologies	Vermi compostMushroom production

4.	Paramakudi	Block: Parramakudi Villages: 1.Manjapattanam 2.Pambur	Crop Paddy	Paddy • Stem borer • Micro nutrient deficiency	Paddy IPM in paddy Micro nutrient application
		3.Mela Ayakudi 4.Elanthaikulam.5. Kamuthakudi 6. Ariyanenthal	Millets Cumbu Ragi Kuthiraivali	Low yield	High yielding varieties
			Blackgram	Lack of suitable varieties	High yielding varieties
			Cotton	Lack of high yielding varieties Boll worm Low price	 Recommending high yielding varieties IPM for boll worm control Better marketing techniques

	Sugarcane	 water deficit Lack of knowledge on drip irrigation Low soil fertility 	 Introduction of drip cum fertigation technology Introduction of daincha as intercrop
	Horticultura I crops Chilli Vegetables Banana	 Chilli Low organic matter Marketing Low yield	 Chilli Azophos application Grading techniques Post harvest technologies Banana Introduction of tissue culture banana
	EnterpriseCattle& goat rearing	GoatBlue tongue disease	GoatVaccination
	More no. of SHGs	Income generating technologies	Food processingVermi compostMushroom
Block-Nainarkoil Villages: 1. Pandiyur	Paddy	Pest problem (Stem & shoot borer)	IPM in paddy
 Manjakollai Kiliyur 	Cumbu	Honey dew diseases	Spray ridomil 2.5 ml in 1 lit. of water
4. Sathirakudi	Groundnut	Root rot ill filled pod	Seed treatment with BavistinGypsum application

	Chilli	Low yieldFruit rot	 Biofertilizer + Neem cake application to increase nutrient status
			 Integrated pest and

				disease management
Paramakudi		Vegetables	Local variety	 High yielding and hybrid vegetable will be recommended Drip irrigation for vegetable cultivation in large scale cultivation
		Banana	Local variety	Introduction of tissue culture banana
		More number of SHGs	Income generating technologies	Food processingVermi compostMushroom
		Enterprises	 Animal husbandry Cattle goat & sheep management Blue tongue disease Low milk yield 	 Vaccination Improved techniques for cattle management to increase the milk yield.
	Block Bogalur	Paddy	Erratic rainfall	Seed hardening practices to over come drought
		Groundnut	Root rotill filled podsLow yield due to poor population	 IPM practices Gypsum application Seed drill sowing
		Pulses	Low yield due to local varieties	suggesting high yielding varieties
		Chilli	Lack of knowledge on INM	Introduction of INM practices

5.	Block - Ramanathapuram Villages Mudhunal Achuthanvayal Etttivayal Perungulam R.S. Madai	Ramanathap uram Paddy	 Non availability of short duration high yielding varieties Low yield 	 Introduction of short duration high yielding salt tolerant varietiesRMD (R) 1 & PMK 3) Seed drill sowing to increase the Yield 	
		Block: Thirupullani	Millets	Low yield	Package of practices
		Villages: Thirupullani Kancchirangudi	Oilseeds Gingelly Groundnut	Local variety Low yield	High yielding varieties INM
		Kalari Uthiragosamangai Vannangundu	Pulses Blackgram Greengram	Non availability of high yielding varieties	Introduction of high yielding varieties
			Cotton	Boll worm	Recommending suitable IPM practices
			Vegetables	Low yield	High yielding varieties
			Chilli	Fruit borer	IPM in chilli
			Mango	• Low yield • Low soil fertility	High yielding varieties INM
	Ramanathapuram		Thirupullani Paddy	 Non availability of short duration high yielding varieties Low yield 	 Introduction of short duration high yielding salt tolerant varieties(RM96019 &PKM 3) Seed drill sowing to increase the Yield
			<i>Millets</i> Ragi	Low yield	Package of practices
			Oilseeds Gingelly Groundnut	Local variety Low yield	High yielding varieties INM

			Pulses Blackgram Greengram	Non availability of high yielding varieties	Introduction of high yielding varieties
			Horticultural crops		
			Vegetables	Low yield	High yielding varieties
			Enterprises. Animal husbandry Cattle and	Animal husbandry Foot and Mouth Disease Blue tongue	Improved disease management practices
			Goat rearing	disease	
			Mushroom production	Low production	Production technologies
			Vermicompo sting	Lack of knowledge on commercial production techniques	Improved vermicompost preparation techniques
			Nutritional gardening	Low yield	Hi tech cultivation techniques
			Coir pith composting	Lack of knowledge on preparation techniques	Skill training on compost preparation and its use
			SHGs	Lack of knowledge on self employment opportunities	Need based and resource based training
6.	nai	Block:	Crops		
	adaı	Thiruvadanai	Paddy	Stem borer	• IPM measures
	9. Thiruvadanai	Villages Kadampakudi Pudukudi		 Low yield due to cultivating local rice varieties 	 Introduction of saline resistant short duration variety - RM 96019
			Cotton	Stem weevil	IPM measures
			Chilli	Fruit rot	Suitable control measures for fruit rot
			Enterprises	Cattle-Foot and mouth diseaseGoat-Blue tongue	Effective management practicesVaccination

				disease	
			SHGs	Lack of knowledge on self employment opportunities	Need and resource based trainings
		Block: R.S. Mangalam Villages	Paddy	 Low yield due to poor maintenance of plant population 	Introduction of paddy seed drill sowing
		Sittanendal & Valamavur	Vegetable	Low yield due to raising local varieties	 Introduction of high yielding vegetables
			Chilli	Fruit rot disease	Integrated disease management
			Banana	Low yield	Tissue culture banana
			Enterprises	 Cattle-Foot and mouth disease Goat-Blue tongue disease 	Effective management practices to eradicate foot and mouth disease
			SHGs	Off seasonal activities	VaccinationVocational training
7.	Rameshwaram	Block-Mandapaam Villages 1.Uchipuli 2.Akkamadam 3.Thangachimadam 4.Pirappan valasai 5.Pamban	Crops Coconut	 Button shedding Poor water holding capacity More saline water 	 Micronutrient mix application Introduction of Drip cum fertigation Soil moisture conservation techniques Improved cultivation techniques and varieties
			Jasmine	Poor yield Bud ward	Focusing proper propagation techniques Suitable IPM for bud worm control to increase the quality of flowers

	Betelvine	Low yield Mosaic disease	 Improved cultivation techniques Suitable control measure for mosaic virus
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	Palmyra	Lack of knowledge on its utilisation	Value addition
	Cashew and Sapota	Lack of production technologies and varieties	Improved cultivation techniques and varietiesINM
	Enterprises Jasmine terminal and semi hard wood cutting Palmyra nursery preparation Prawn culture	 Lack of Knowledge on semi hard wood cutting preparation and use of mist chamber Lack of knowledge on alternative jobs. 	 Palmyra based value added products. Training on suitable technologies
	SHGs	Alternate jobs other than fisheries	Suitable need based activities

2.8 Priority thrust areas

S. No	Thrust area
1.	Dissemination of saline and drought tolerant short duration paddy varieties suitable for rainfed situation – RMD (R) – 1
2.	Production of vermi compost to encourage organic cultivation
3.	Area increase under Oil seeds and Pulses (Groundnut, Blackgram and Greengram)
4.	Introduction of high yielding varieties in horticulture

Methodology followed to identify the training needs

- Direct interview method
- Group discussion method
- Case study analysis
- Feed back analysis
- Registration of trainees
- PRA analysis

For farmers

On Campus Training

- Increasing the training period from 1 week to 1 month
- Vocational training programmes in order to start self employment activities.
- Increasing training period for mushroom cultivation.
- Cultivation techniques on button mushroom
- Rice and millet based value added products preparation
- ♦ Vermi compost preparation
- Drip cum fertigation training
- Modern techniques on Animal husbandry
- Training on Turkey and Rabbit rearing
- Nutritional Gardening.
- Coir composting techniques
- Marketing techniques in vermicompost and mushroom production
- Vocational training to unemployed rural youths and issuing of certificates for the training programmes
- Micro finance for self employment

Off Campus

- ★ Package of practices for paddy, cotton and chilli
- ★ Training on high yielding varieties of pulses
- ★ Installation of demonstration units at each block for drip cum fertigation techniques
- ★ Training on uses of Bio- fertilizers

- **★** INM for coconut
- ★ INM for Jasmine
- ★ Integrated pest and disease management for betelvine cultivation
- ★ Training on cultivation of fruit crops
- ★ Training on self employment activities
- ★ Training to reduce water and fertilizer use
- ★ Waste land development
- ★ Vermi composting and marketing techniques
- ★ Integrated weed management
- ★ INM for groundnut
- ★ Drought management techniques
- ★ Soil sampling

For Extension functionaries

The following training programmes were identified by interview and group discussion method

- Coconut cultivation
- Wasteland management
- ◆ IPM in chilli
- Jatropha cultivation
- Mechanized sowing by seed cum fertilizer drill
- Modern marketing techniques
- Training on Adoptive Research Trial (ART)
- Medicinal plants suitable for wasteland
- Nursery management
- Chilli cultivation

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities

	0	FT			FL	.D		
	:	1		2				
Num	ber of OFTs	Numbe	er of Farmers	Number of FLDs Number of Farmers				
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement	
7	7	50	50	8	8	74	74	

	Trai	ning		Extension Activities				
	;	3		4				
Number of Courses Number of Participants				Numbe	er of activities	Number of participants		
Targets	Achievement	Targets	Achievement	Targets	Achievement	nent Targets Achieve		
276	276 276 2000 2000			14	13	Enti	re district	

Seed Proc	luction (Qtl.)	Planting ma	aterial (Nos.)
	5		6
Target	Achievement	Target	Achievement
Paddy - 2000 kg	Paddy - 1920 kg	Jatropha seedlings – 50000	Jatropha seedlings – 37400

3.B. Abstract of interventions undertaken

Programme 1 – OFT

						Int	erventions		
S. N o	Thrust area	Crop/ Enterpri se	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personne I if any	Exten sion activit ies	Supply of seeds, planting materials etc.
1	Seed/ Plant Protectio n	Paddy	Early season droughtPoor seedling vigourLow yield	Seed coatin g	Nil	Package of Practice s on Paddy	-	Group meeti ngs	Seeds

Programme 2 – OFT

						Interve	entions		
S. No	Thrust area	Crop/ Enterpris e	ldentifie d Problem	Title of OFT if any	Titl e of FLD if any	Title of Training if any	Title of training for extensi on person nel if any	Extens ion activiti es	Supply of seeds, plantin g materia Is etc.
2	Weed managem ent	Paddy	Weed Popula tion	Herbicid e applicati on	Nil	Weed manage ment in Paddy	-	Group meeti ngs	Sofit, Rifit

Programme 3 – OFT

						Interv	entions		
S. No	Thrust area	Crop/ Enterpris e	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Traini ng if any	Title of training for extensi on person nel if any	Extens ion activiti es	Supply of seeds, planting materials etc.
3.	Farm machin eries	Rainfed Paddy	 Uneven distribution of Seeds Poor germination Poor plant populations Higher labour 	Mecha nized Sowin g	Nil	Agricu Itural Imple ments	-	Group meeti ngs	Seeds

						Inte	rventions		
							Title of		
						Title	training		Supply
S.	Thrus	Crop/	Identified	Title	Title	of	for	Extensi	of
No	t area	Enterp	Problem	of OFT	of	Traini	extensi	on	seeds,
INO	taica	rise	riobieiii	if any	FLD	ng if	on	activitie	planting
				ii aiiy	if any	any	person	S	materia
						arry	nel if		Is etc.
							any		

Programme 4 - OFT

4.	INM	Cocon	Poor water	INM	Nil	-	INM in	Group	Fertilize
		ut	holding capacity	in			Coconu	meetin	r and
			Use of high	cocon			t	gs	Coir
			saline water for	ut			cultivati		piths
			inputs				on		
			●Improper						
			fertilizer manage						
			ment						

Programme5 – OFT

						Interv	entions		
S. No	Thrust area	Crop/ Enterpri se	Identifie d Problem	Title of OFT if any	Title of FLD if any	Title of Traini ng if any	Title of training for extension personnel if any	Exte nsion activi ties	Supply of seeds, planti ng materi als etc.
5.	IPM	Cotton	Stem weevil	IPM in cotton	Nil	IPM in Cotto n	Nil	Grou p meet ings	Neem cake, Neem oil

Programme 6 – OFT

						Inte	rventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD	Title of Training if any	Title of training for	Extension activities	Supply of seeds, planting

					if		extension		materials
					any		personnel if any		etc.
							,		
6.	Seed/Plant Production	Chillies	Non adoption of seed treatment	Seed treatment in Chillie	Nil	Package of practices on chilli	Nil	Group meetings	Seeds, Bio control agents, Bio fertilizers

Programme 7 – OFT

						Int	erventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
7.	INM	Gingelly	 Low soil fertility Low application Of inorganic fertilizer Low yield 	INM in Gingelly	-	Package of practices on Chillies	Nil	Group meetings	Fertilizers

Programme 8 – OFT

S.	Thrust	Crop/	Identified	Interventions
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No	area	Enterprise	Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
8.	INM	Jasmine	●Low organic content of soil, ●Poor yield, ●Micro nutrient deficiency in the soil, ●No application of inorganic fertilizer.	INM in Jasmine	Nil	INM in Jasmine	Nil	Group meetings	Bioagents and fertilizers

Programme 9 –OFT

						Inte	rventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
9.	INM	Betelvine	●Low organic matter content of soil, ●Poor yield, ●No application of in organic fertilizer.	INM in Betelvine	Nil	INM in Betalwine	Nil	Group meetings	Bio agents and fertilizers

Programme 10 – OFT

						In	terventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
10	IPM	Chillies	Aphids and Fruit Borer	IPM in chillies	Nil	IPM in Chillies	Nil	Group meetings	Nil

FLD on Crops other than Oilseeds and pulses

Programme 1 - FLD

	1					Inter	ventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1.	Varietal evaluation	Rainfed Paddy	 Non availability of drought and saline tolerant variety Low yield 	Nil	Varietal evaluation in Paddy under Rainfed situation	Package of production in Paddy cultivation	Package of production in Paddy cultivation	Group meeting	seeds

Programme 2 – FLD

ς.	Thrust	Crop/	Identified	Interventions
J.	mast	Ci Op/	lacillilea	interventions

N o	area	Enterprise	Problem	Titl e of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extens ion activiti es	Supply of seeds, planting material s etc.
2.	Varietal evaluati on	Rainfed Paddy	 Non availabilit y of drought and saline tolerant variety Low yield 	Nil	Varietal evaluati on in Paddy under Rainfed situatio n	Package of producti on in Paddy cultivati on	Package of productio n in Paddy cultivation	Group meeti ng	seeds

Programme 3 – FLD

						Inte	rventions		
S. N o	Thrust area	Crop/ Enterprise	Identified Problem	Titl e of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extens ion activiti es	Supply of seeds, planting material s etc.
3.	Farm machin eries	Paddy	●Improp er sowing method ●Drought ●Excess populatio n ●high intensity of weed infestatio n	Nil	Mechan ized sowing of seed cum fertilizer in Paddy	Agricult ural Implem ents	Nil	Group meeti ngs, village meeti ngs, OFT	Seeds

Programme 4 – FLD

						Inter	ventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
4.	Seed/plant production	Cotton	Lack of knowledge about the importance of seed treatments	Nil	Seed treatment in cotton	Cultivation technology for cotton	Nil	Group and Village meetings	Seeds and chemicals

Programme 5 – FLD

						lı	nterventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.

5.	IPM	Coconut	Pest	Nil	IPM in	IPM in	IPM in		Pheromone
			problems		coconut	coconut	coconut	Group	trap and
			like					meetings	Lure trap
			Rhinoceros						
			beetle,						
			Red palm						
			weevil						

Programme 6 – FLD

						Ir	nterventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
6.	Seed treatment, INM	Chillie		Nil	INM in chillie	INM iin chillie	INM in chillie	Group meetings	Neem cake, Azophos

Programme 7 - FLD

						Inter	ventions		
S. N o	Thrust area	Crop/ Enterprise	Identifie d Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extensio n personn el if any	Extension activities	Supply of seeds, planting material s etc.

7.	Varietal	Water	Lack of	Nil	Introduc	Production	Nil	Group	seeds
		melon	awarene		tion of	technologi		meetings	
	evaluatio		ss on		hybrids	es of			
	n		high		in	watermelo			
			yielding		waterm	n			
			varieties		elon				

FLD on Oilseeds and pulses

Programme 1 – FLD

						Inter	ventions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1.	INM	Groundnut	Population reduction upto 20-30% due to root rot/cotton rot, disease incidence	Nil	INM in Groundnut	INM for Groundnut	Nil	Group meetings	Fertilizer and seeds

Programme 2 – FLD

						Interv	entions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
2.	Varietal evaluation	Black gram	●Lack of awareness on high yielding variety ●Non application of biofertilizer and inorganic fertilizer ●No foliar application ●Pest and disease incidence	Nil	Introduction of latest high yielding variety	Pulses production technology	Nil	Group meetings	Seeds, fertilizers and Planofix

Programme 3 – FLD

						Interv	entions		
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.

3.	Varietal	Green	Lack of	Nil	Introduction	Pulses	Nil	Group	Seeds,
	evaluation	gram	awareness		of latest	production		meetings	fertilizers
			on high		high	technology			and
			yielding		yielding				Planofix
			variety		variety				
			●Non						
			application						
			of						
			biofertilizer						
			and						
			inorganic						
			fertilizer						
			No foliar						
			application						
			Pest and						
			disease						
			incidence						

Achievements on technologies assessed and refined 3.1

A. 1 Abstract on the number of technologies **assessed** in respect of crops

Thematic areas	Cereals	Oil seeds	Pulses	Commercial crops	Vegetables	Fruits	Flower	Plantation crops	Tuber crops	Total
Varietal	2	-	2	-	-	1	-	-	-	5
Evaluation				_						
Seed/Plant	1	-	-	1	1	-	-	-	-	3
production										
Weed	1	-	-	-	-	-	-	-	-	1
Management										
Integrated	-	-	-	-	-	-	-	-	-	-
Crop										
Management										
Integrated	-	2	-	1	-	-	1	1	-	5
Nutrient										
Management										
Integrated	-	-	-	-	-	-	-	-	-	-
Farming										
System										
Mushroom	-	-	-	-	-	-	-	-	-	-
cultivation										

Drudgery	-	-	-	-	-	-	-	-	-	-
reduction										
Farm	2	-	-	-	-	-	-	-	-	2
machineries										
Value	-	-	-	-	-	-	-	-	-	-
addition										
Integrated	-	-	-	1	1	-	-	1	-	3
Pest										
Management										
Integrated	-	-	-	-	-	-	-	-	-	-
Disease										
Management										
Resource	-	-	-	-	-	-	-	-	-	-
conservation										
technology										
Small Scale	-	-	-	-	-	-	-	-	-	-
income										
generating										
enterprises										
Total	6	2	2	3	2	1	1	2	-	19

A.2 Abstract on the number of technologies **refined** in respect of crops

Themati c areas	Cereals	Oil seeds	Pulses	Comme rcial	Vegetab les	Fruits	Flower	Plantati on crops	Tuber crops	Total
Varietal	-	-	-	-	-	-	-	-	-	-
Evaluation										
Seed/Plant	-	-	-	-	-	-	-	-	-	-
production										
Weed	-	-	-	-	-	-	-	-	-	-
Management										
Integrated	-	-	-	-	-	-	-	-	-	-
Crop										
Management										
Integrated	-	-	-	-	-	-	-	-	-	-
Nutrient										
Management										

Integrated	-	-	-	-	-	-	-	-	-	-
Farming										
System										
Mushroom	-	-	-	-	-	-	-	-	-	1
cultivation										
Drudgery	-	-	-	-	-	-	-	-	-	-
reduction										
Farm	1	-	-	-	-	-	-	-	-	1
machineries										
Value	-	-	-	-	-	-	-	-	-	-
addition										
Integrated	-	-	-	-	-	-	-	-	-	-
Pest										
Management										
Integrated	-	-	-	-	-	-	-	-	-	-
Disease										
Management										
Resource	-	-	-	-	-	-	-	-	-	-
conservation										
technology										
Small Scale	-	-	-	-	-	-	-	-	-	-
income										
generating										
enterprises										
Total	1	-	-	-	-	-	•	-	-	1

A.3 Abstract on the number of technologies **assessed** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-

Production and Management	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

A.4 Abstract on the number of technologies **refined** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-
Disease of Management	1	-	-	-	-	-
Value Addition	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-
Small Scale income generating enterprises	1	-	-	-	-	-
TOTAL	-	-	-	-	-	-