

Dr.V. L. Chopra, visit to NPM and Organic villages

15th November, 2007

Dr.V.L.Chopra, Member, Planning Commission visited Laxminaik Thanda and Yenabavi villages in Warangal district. This visit was a follow up of a workshop organized by CSA and WASSAN in Delhi during September, 2007. He was particularly interested to see the Non Pesticidal Management in the fields and listen to farmers' experiences. Dr. V. L. Chopra is a well known Agriculture Scientist, heading the biotechnology research in Indian Institute of Agriculture Research and worked as Director General, Indian Council of Agriculture Research. Dr. Chopra was accompanied by Dr. M.S.Chari, Dr.N.K.Sanghi, Dr. D.V.Raidu and Dr. G. V. Ramanjaneyulu, other NGO colleagues from Warangal and District administration.

In Laxminaik thanda village of Jafferghad mandal on 15th Nov, 2007 has 30 families all practicing NPM for the last three years. He visited Chillies, Cotton fields in the village. The women in the village explained about the concept of NPM with a *Rangavalli* on the ground with colors and models. He visited a chilli



field of Smt. Banoth Dasami and Sri. Banoth Babu who explained all the practices in the field and whole philosophy and concept of NPM. The field was very healthy and he appreciated the farmers for their knowledge and skills and commented it was one of the best fields he has ever seen. Up till now the farmer have saved Rs.15000/acre by following NPM this season. He also appreciated the efforts made by state team, Resource agencies and NGOs. The cotton crop is in the last stages with two pickings completed. "I could see cotton still with terminal bud after harvest, a good indication of better harvest" he said.

Then he interacted with the farmers of the village to share his reflections with the farmers, He appreciated the effort of farmers, State Govt. Represented by District collector, SERP and NGOs. He said NSS data shows that given a choice that 40% of the total farmers in India are ready to quit agriculture. The major reasons are 1) Low or marginal net-profits 2) High Risk involved. In this situation the main question before all of us it how to increase the net-profits. In this situation it is necessary that the technology generation should focus on location specific needs of the people. Scientists should try to do more research on location specific technologies. It is equally important that available best technologies in agriculture research should reach the farming communities. In additional to the traditional govt. systems there should be community participation in promoting sustainable Agriculture. He commended the villagers that the NPM performance was much more than his expectations. Several farmers shared their experiences and how they were they realized that pesticides and useless and talked about their conviction about sustainable agriculture practices. Mr. R. Murali, Secretary MARI shared the status of the program in the district, their experiences with the NPM societies and revolving fund and future plans



Visit to Enabavi:

Dr. Chopra also visited Yenabavi and discussed with the farmers about their experiences with organic farming. Farmers have shown how the population of deep borrowing earthworms has increased after moving to NPM. Mr. Lingaiah, Director, CROPS explained the economics of cultivation in the village.

Dr. Chopra has shared his experience from the visit with Hon'ble Minister for Rural Development, Govt. of AP Dr. Chinna Reddy garu, Mr. K. Raju, Principal Secretary, Rural Development, Mr. Vijay Kumar, IAS and CEO, SERP and Mr. Ajay Kallam, Principal Secretary, Agriculture later in the day.

Abstract of Information on NPM program in Warangal dist.

Prepared by Dr. NK Sanghi, Rahitha and Mr. Chari, MARI

1. Overall area under NPM programme with six partner NGOs in Warangal district has increased from 2400 Ac (during 2005) to 39257 Ac (during 2007) as per table 1 (part – 2)
2. Area under NPM with MARI has increased from 600 Ac (during 2005) to 7516 Ac (during 2007) as per table 2
3. During this year average cost of pesticides in 4 major crops namely cotton, paddy, chillies and redgram is about 50 percent as compared to non-NPM approach (Table – 3). This has happened without any reduction in yield of any of the three crops (cotton, paddy and redgram). The yield of chillies is still to be collected.
4. Broadly speaking, 6 types of inputs were used for management of pests in different crops namely (i) pheromone traps, (ii) yellow / white sticker plates, (iii) border / trap crops, (iii) trap crops on border, (iv) neem seed kernel extract, (v) panchagavya, (vi) neem kernel / cake. Out of these 2 inputs (i.e. pheromone traps and neem powder) were purchased from outside; two inputs (border / trap crops and neem seed kernel extract) were locally arranged and remaining two inputs (i.e. yellow / white sticker plates and panchagavya) were prepared at village level after purchasing raw material from outside (Table – 4). Total cost of above inputs for the whole tanda works out to Rs. 137740.
5. The NPM society was organized in the above tanda during 2004 with 30 families. The DRDA has given a grant Rs. 3000 per acre with farmers' contribution of Rs. 1000 per acre. This has resulted into a corpus of Rs. 2.4 lakh in the tanda. The details about loan taken for major inputs regarding pest management, fertility management and seeds was assessed from 30 families associated with the NPM society. During this year these families have taken loan only from internal sources (which include Rs. 57900 from the NPM society and Rs. 36000 from SHGs). However the same families used to take loan from input supplier before starting the NPM programme (which used to be Rs. 1952000) (Table – 5)
6. On the whole, the annual medical bill with 30 families has fallen to Rs. 14250 on account of NPM approach as compared to Rs. 60000 under the non-NPM approach (Table – 6).
7. Three specific types of support systems were crated by SERP for facilitation of NPM approach
8. A new organizational set-up was created at the community level which includes (i) sub-committee of SHG federations at village / mandal / district level and (ii) NPM society / Farmers Field School at village level
9. A new extension set-up was crated below the block / mandal level which includes (i) one resource person from experienced NGO and (ii) 1 para worker each at village level and cluster level
10. Financial support of Rs. 3.18 lakhs was provided on contributory basis (which includes Rs. 0.78 lakhs per year for extension set-up; and Rs. 1.81 lakhs towards corpus for purchase of inputs)

Summary tables regarding NPM programme in Laxmanayak thanda in Warangal district during 2007

Table – 1: Overall status of NPM programme being implemented through collaborative efforts between SERP, NGOs and Mahila Samakhya in Warangal district

Sl. No.	Name of NGO	Number of villages covered during different years		
		2005	2006	2007
1.	MARI	10	20	20
2.	SYO	10	20	20
3.	PSS	10	20	20
4.	CROPS	10	20	20
5.	SEVA	–	–	10
6.	SSS	–	–	10

Sl. No.	Name of NGO	Area covered during different years		
		2005	2006	2007
1.	MARI	600	1200	8030
2.	SYO	600	1200	8070
3.	PSS	600	1200	8750
4.	CROPS	600	1200	8113
5.	SEVA	–	–	3037
6.	SSS	–	–	3257

Table – 2: Area covered under NPM programme by one NGO (MARI) during last three years in different clusters of villages in Warangal district

Sl. No.	Village	Area (Ac.) covered during each year		
		2005	2006	2007
A.	Cluster – 1			
	- uppagallu	60	60	425
	- thamadapally(l)	60	60	343
	- thigaram	60	60	384
	- Laxminaikthanda	60	60	514
	- kasanathanda	60	60	483
B.	Cluster – 2			
	- vaddegudem	60	60	372
	- thimapur	60	60	336
	- Himmathnagar	60	60	413
	- suraram	60	60	330
	- sagaram	60	60	405
C.	Cluster – 3			
- Zaffergadh	60	60	342	

	- sapally	60	60	383
	- thamadapally	60	60	406
	- thidugu	60	60	456
	- konaichalam	60	60	377
D.	Cluster – 4			
	- Venkatapur	60	60	330
	- Ragunadhally	60	60	542
	- Kunur	60	60	486
	- thimmapet	60	60	282
	- Garemelapally	60	60	421

Table – 3: Further details about NPM and non NPM programme on 3 major crops in one village (Laxmanayak Thanda) by MARI during 2006

Sl. No.	Crops	Area (Ac)	Average cost of pesticides (Rs./ Ac)		Average yield (Q / Ac)	
			NPM approach	Non NPM approach	NPM approach	Non NPM approach
1.	Cotton	120	723	1557.6	6.83 Q	06.73 Q
2.	Paddy	52	356	760.00	25.20 Q	25.50Q
3.	Chillies	12	–	–	–	–
4.	Redgram	10	220	450.00	4.00 Q	4.20 Q

Table – 4: Details about inputs purchased under NPM programme in Laxmanayak Thanda during 2007

Sl. No.	Type of inputs	Quantity	Unit cost (Rs)	Total cost (Rs)	Source of input
1.	Pheromone traps (No)	1016	13.00	13780.00	External
2.	Yellow plate (No)	1264	15.00	18960.00	Raw material purchased and prepared in the village
3.	Trap crops on border (Kg)	–	440.00	22000.00	Own seed
4.	Neem powder (Kg)	2500 Kg	8.00	20000.00	External
5.	Pancha gavya (Ltr)	704 ltr	90.00	63000.00	Raw material purchased and prepared in the village
6.	Neem cake (Kg)	own	own	own	own

5. Amount of loan taken from different sources during NPM and non NPM period

Sl. No.	Source of loan	Amount of loan (Rs) for inputs during NPM period (2007)			Amount of loan (Rs) for inputs during non NPM period (2004)		
		Pest management	Fertility management	Seed s	Pest management	Fertility management	Seed s
1.	Money lender	-	-	-	-	-	
2.	Input supplier	-	-	-	1,820,000.00	1 20,000.00	12,000.00*
3.	NPM society	42,930.00	-	15000.00	-	-	

4.	Women SHGs	-	36,000.00	-	-	-	-
5.	Self savings	-	-	-	-	-	-
6.	Any other	-	-	-	-	-	-

Calculated for 30 farmers.

6. Expenses on pesticide related medical treatment during NPM and non NPM period in Laxmanayaka Thanda

SI. No.	Period	Average medical bill per family (Rs / year)	Remarks
1.	NPM	350-600	Recorded less number of pesticide poisoning cases
2.	Non NPM	1500-2500	-

7. Status about repayment of loan by the concerned family to the NPM society during the last 3 years

SI. No.	Items	Amount of loan (Rs)			Repayment of loan (Rs) *			Overall due (Rs)
		2005	2006	2007	2005	2006	2007	
A	Recurring inputs							
1.	Pheromone trap	4710.00	4710.00	10450.00				
2.	Yellow plate	3600.00	-	660.00				
3.	Trap crops on border	13200.00	6000.00	9000.00				
4.	Neem powder	24000.00	21000.00	15000.00				
5.	Pancha gavya	12000.00	12000.00	12000.00				
6.	Neem cake	9000.00	5340.00	-				
7.	Any other							
B.	Non - recurring inputs							
1.	Thick plastic containers for preparation of Panchakavya							
2.	Construction of cement structures for preparation of vermicompost	29000.00	-	-				
3.	Any other							
	TOTAL	93, 510.00	49, 500.00	42, 930.00	46,500.00	20,520.00	-	1,18 940.00

*Do not have break input wise repayment

Key features of support system for up-scaling NPM approach

A. Organizational set up:

- Sub-committee of SHG federations at village and mandal level -
- NPM society / Farmers Field School at village level -
- Project based activists at village level 28 000.00
- Project based resource person at cluster of village level 100000.00
- NGO representative at mandal level (3 yrs) 600000.00

B. Financial support during last three years

Sl. No.	Items	Amount (Rs) so far		
		DRDA	Farmers	Total
1.	Full grant towards salary of above organization set up	-	-	-
2.	Full grant for purchase of community oriented equipments, etc	-	-	-
3.	Contributory corpus for purchase of inputs	1.8 lakh	0.6 lakh	2.4 lakh

Background information about Laxmanayaka thanda

- No. of families 52
- Land resource 500 Acres
 - Rainfed (Ac) 320 Acres
 - Irrigated (Ac) 122 Acres
 - Un cultivated 58 Acres

 Total (Ac) 500 Acres
- No. of wells / bore wells: 12 wells and 62 bore wells
- No. of tanks: One
- No. of livestock
 - Bullocks 98
 - Cow s 1
 - Buffaloes 3
 - Sheep 150
 - Goats 50

- No. of SHGs 5
- Organization of village organization (Y/-)
- Details about major crops in the village before starting NPM programme (2004)

Sl. No.	Crops	Area (Ac)	Average production (Q/Ac)	Average cost of critical inputs (Rs / Ac)			
				Pest management	Fertility management	Seed	Total
1.	<i>Khaif</i> season						
	- Paddy	140	21	2200	3000	180	5380
	- Cotton	100	8	5000	3000	300	8300
	- Chillies	15	18	12000	5000	360	17350
	- Groundnut	12	9	300	600	500	1400
	- Maize	30	25	300	1000	150	1450
	-						
	-						
2.	<i>Rabi</i> season						
	- Paddy	50	18	1200	600	180	1980
	- Maize	40	26	500	1000	150	1650
	- Sorghum	15	5	-	-	100	600
	-						
	-						
	-						