Report of the Joint Inspection Team on its visit to Bihar during 31st May to 4th June, 2014 to review the progress under the Mission for Integrated Development of Horticulture (MIDH)



Districts visited by J.I.T

1. Darbhanga 2. Madhubani 3. Muzaffarpur



Mission for Integrated Development of Horticulture

Ministry of Agriculture

Department of Agriculture & Cooperation

Krishi Bhawan, New Delhi-110001

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Observations / Recommendations

- Farmers lack training about functioning and maintenance of the drip / sprinkler system, crop water requirement and irrigation scheduling, such system need to be supported with training of field functionaries as well as farmers. It needs to be ensured that the drip system is installed as per the required specifications.
- JIT observed that PHM and marketing related infrastructures are very less in numbers because of lack of entrepreneurship among farmers.
- The JIT was dissatisfied with the planting material of mango supplied by the Public sector and other certified nurseries in the districts. Plants were found suffering with vegetative malformation (about 6 years old) and tumour at the graft union which hampers the growth. Malformed plants needs to be replaced. Step need to be initiated to accredit the nurseries for ensuing supply of good quality planting material to the farmer under the programme.
- The districts need to be equipped with sufficient trained man power and infrastructure facilities to provide necessary extension support to the farmers.
- JIT observed that shade net / poly house were without any crop. Many farmers were found unaware of crops to be taken up in poly house. As a result, they could not reap the full advantage.
- Makhana farmers were demanding subsidy under MIDH for purchase of pesticides and boat. SHM may look into it.

- Thatched Pan Bareja needs to be replaced with shade net as practiced in Chhattarpur (MP).
- In rejuvenation of mango / litchi, thinning of new shoot was not done, hence disease / pests population increased.
- Excessive use of toxic pesticides in vegetables was observed.
- Display board with NHM logo may be placed wherever financial assistance has been provided under NHM (MIDH). This will help other farmers to come forward for getting benefits of ongoing NHM programme.

Actionable Issues

- There has been significant improvement in the adoption of activities such as protected cultivation, micro irrigation, rejuvenation and area expansion of mango and litchi, which augurs well for the horticulture sector.
- Makhana is a crop of pond eco-system, and field based cultivation technology already standardized by NRC Makhana, needs to be popularized among the farmers for enhancing the productivity and facilitate horizontal expansion of Makhana.
- Field functionaries and farmers need to be imparted training on protected cultivation including production technologies in Green house cultivation.
- Training and awareness programmes on adoption of plant protection measures i.e. Integrated Pest Management (IPM) for vegetable growers to be intensified, including discouragement on the use of highly toxic pesticides in vegetable clusters.
- It was observed that Mango sapling planted by the beneficiaries had problem of vegetative malformation and tumour around graft union and require to replaced with certified quality planting material.
- It is desirable that SHM representative should accompany the JIT till the end of its visit in order to have first hand information about the implementation of NHM programmes in the State / districts.
- Under high density plantation of mango, Amrapali, a dwarf variety, may be planted in adequate numbers.

Report of the Joint Inspection Team on its visit to Bihar during 31st May to 4th June, 2014 to review the progress under the Mission for Integrated Development of Horticulture (MIDH)

The Joint Inspection Team (JIT) comprising Dr. Om Prakash, Chief Consultant, MIDH, DAC, Govt. of India, New Delhi along with Shri A. K. Raut (DHO, Muzaffarpur), Shri Upendra Kumar (DHO, Darbhanga) and Shri Ajit Kumar Yadav (DHO, Madhubani) visited Bihar during 31st May to 4th June, 2014 to review the progress under MIDH programme in the State. No representative from SHM Headquarter accompanied during entire visit.

The JIT covered the district of Darbhanga, Madhubani and Muzaffarpur. Activities which were visited in different districts are as follows:-

MIDH- Nursery, vegetable seed production, Area expansion of mango, Litchi, Guava, Makhana, Betelvine cultivation, Protected cultivation, Water Ponds, Vermi compost units, Onion storage, Bee keeping, Apni Mandi, rejuvenation, High Density plantation of Mango and Litchi.

NMMI- Drip/ Sprinkler irrigation in vegetables / fruit crops.

S. No.	Items	Physical (ha)	Financial (Rs. in lakh)	
1.	Drip Irrigation	1136.16	925.96	
2.	Sprinkler Irrigation	40235.43	6345.72	
3.	Demonstration	19.80	8.14	
4.	Farmer's Training	2.00	1.24	
5.	Administrative cost	-	26.01	
6.	Total		7307.07	

Progress under National Mission on Micro Irrigation (NMMI) scheme in Bihar, 2012-13

SI. No.	District	Area (in ha.)	Production (in Qt.)	Productivity of Makhana seeds (Qt/ha)
1.	Darbhanga	3850	115500	30.00
2.	Madhubani	4565	136950	30.00
3.	Katihar	1156	28900	25.00
4.	Purnia	972	24300	25.00
5.	Sitamarhi	85	2125	25.00
6.	Supaul	792	22176	28.00
7.	Araria	382	7640	20.00
	Total	11802	337591	Average productivity-26.14 Qt./ Ha.

Area, Production & Productivity of Makhana in Bihar

Status of Mission for Integrated Development of Horticulture (MIDH)

Main highlights of Horticulture in the State

- Bihar is the leader in production of litchi in the country. Other important fruits of the State are banana, mango, guava and pineapple.
- Bihar State is the second largest producer of cauliflower in the country after West Bengal and accounts for about 17.0% of total production of cauliflower in the country.
- Bihar is ranked third in producing okra and accounts for 13.0% of total production of Okra in the country.
- Bihar accounts for 15.0% of total production of potatoes in the country and is the third largest producer of potato in the country.
- Bihar is the third largest producer of cabbage and accounts for 9.0% of total production of Cabbage in the country.

MIDH Scheme

The Centrally Sponsored Scheme of Mission for Integrated Development of Horticulture (MIDH) is being implemented in 23 districts of Bihar since 2005-06.

The scheme is being implemented in twenty three identified potential districts with cluster approach. The districts covered under MIDH include East Champaran, West Champaran, Muzzafarpur, Samastipur, Vaisali, Dharbhanga, Araria, Purnia, Kishanganj, Katihar, Bhagalpur, Banka, Munger, Patna, Nalanda, Aurangabad, Jamui, Khagaria, Gaya, Madhubani, Rothas, Begusarai and Saharas.

The focus crops identified under the programme include Mango, Litchi, Banana, Guava, Pineapple, Makhana, Beal, Betelvine and Aonla.

Major activities being undertaken in the programme are production and distribution of planting material, vegetable seed production, area expansion, rejuvenation of senile orchards, creation of community water resources, protected cultivation, IPM/INM, organic farming, pollination support through bee-keeping, development of infrastructure on post harvest management & marketing and human resource development.

Progress till 2013-14

Salient physical progress till 2013-14 is as follows:-

- An additional area of 0.51 lakh ha of identified horticulture crops are covered.
- 88 nurseries have been established for production of quality planting materials.
- An area of 1020 ha. has been covered under rejuvenation of old and senile orchards.
- Organic farming has been adopted in an area of 1170 ha for promotion of organic cultivation of horticultural crops.
- IPM practices have been adopted in an area of 6614 ha.

- 17 IPM/INM infrastructure facilities such as Leaf tissue analysis labs, disease forecasting units have been created.
- An area of 1171 ha has been covered under protected cultivation.
- 621 community water structures have been created.
- Under the component of Post Harvest Management, 365 units including pack houses, cold storage units, refrigerated vans, primary/ mobile processing units, ripening chambers, pre cooling units attach to cold storages and mobile pre cooling units) have been established.
- 50 market infrastructures have been set up.

An amount of Rs. 179.33 crore was released to the State till 2012-13 against which an expenditure of Rs. 163.50 crore has been reported.

Progress during 2013-14

An allocation of Rs. 50.00 crore has been approved including GOI share of Rs. 42.50 crore for Annual Action Plan 2013-14. Funds to the tune of Rs. 20.00 crore were released during the current financial year, out of which an expenditure of Rs. 23.06 has been reported including unspent balance of previous years.

Component wise physical and financial progress during 2013-14 is given in Annexure.

Programme for 2014-15

- MIDH activities have been subsumed under Mission for Integrated Development of Horticulture (MIDH) during XII Plan (w.e.f. 2014-15).
- An outlay of Rs. 50 crore including GOI share of Rs. 42.50 crore has been approved for the State to implement activities of NHM during 2014-15.

Physical progress under NHM 2013-14

(Rs. in lakh)

Components	Unit	Target a	as per 013-14	Targets as per releases						
		Phy	Fin	Physic	cal	%	Financi	al	%	Wise %
				Tar	Achm.	Achm.	Tar	Achm.	Achm	utilizati on of fund
Nursery	No									
Model		1	21.30	1	1	100.00	21.30	21.25	99.77	0.79
Small		3	7.97	3	3	100.00	7.97	7.96	99.87	0.30
Total		4	29.27	4.00	4.00	100.00	29.27	29.21	99.80	1.09
Area Expansion										
Fruits Perennial		1100	390.83	1100	1100	100.00	390.83	340.90	87.22	12.71
Fruits Non Perennial		750	291.86	750	640	85.33	291.86	259.75	89.00	9.68
Flowers		1583	161.47	650	1485	228.46	161.50	164.32	101.75	6.13
Spices		600	63.75	600	588	98.00	63.75	62.48	98.01	2.33
Aromatic & Medicinal		500	53.13	500	489	97.80	53.13	51.98	97.84	1.94
Plantation crops									-	
Total		4533	961.04	3600	4302	119.50	961.07	879.43	91.51	32.79
Rejuvenation		500	63.75	500	392	78.40	63.75	58.80	92.24	2.19
Creation of									1	
water										
resources										
Protected Cultivation		617	451.88	608.5	607.2	99.79	388.77	320.11	82.34	11.93
Promotion of IPM										
IPM infrastructure										
Disease Forecasting Units										
Bio Control Labs										
Plant Health Clinics										
Leaf/ Tissue analysis Lab		1	17.00							
Total	0	1	17.00	0.00	0.00		0.00	0.00		0.00
Adoption of Organic Farming	Ha.	2000	68.00							0.00

Vermi	No.	1000	42.50	100	1000	1000	42.50	42.50	100.00	1.58
compost unit										
HRD	No.	2357	65.83	2307	975	42.26	27.34	32.07	117.30	1.20
Pollination	No.	10400	151.30	1000	10000	1000.00	151.30	151.30	100.00	5.64
support										
through										
beekeeping										
FLD		30	178.50		24			151.73		5.66
Horticulture	No.	140	51.00	140	140	100.00	65.88	65.88	100.00	2.46
Mechanization										
Post Harvest	No.									
Management										
Pack house		62	79.05							
Cold storage		4	408.00							0.00
CA/MA										
Storage										
Refrigerated		3	24.50		3			77.76		2.90
Vans										
Market										
Intelligence										
Ripening		1	102.00							0.00
Chamber										
Primary /		10	81.60		10			81.6		3.04
mobile										
processing										
units										
Low cost onion		100	42.50	100	100	100.00	42.50	42.50	100.00	1.58
storage										
structures										
Pre cooling										
units attached										
to cold storage										
Total		180	737.65	105	170	161.90	48.88	280.91	574.69	10.47
Market										
infrastructure										
Wholesale /										
Terminal										
market										
Retail Markets		20	68.00		20			68.00		2.54
/ outlets										
Rural / Apni		15	102.00		15			121.56		4.53
Mandis										
Functional		10	51.00		10			51		1.90
Infrastructure										
Extension,		2	255.00							0.00
quality										
awareness										
Total		47	476.00	0.00	45.00		0.00	240.56		8.97
Others			956.50					412.57		15.38
Grand Total			4250.22					2682.41		100.00

District profile Darbhanga

S. No.	Name	Area in Ha	Remark
1.	Geographical Area	241443.2	
2.	Cropped Area	83455	
3.	Cultivable area	198415	
4.	No. of Gram Panchayat	329	
5.	No. of Villages	1269	
6.	Rain fall	2410.7 (mm)	
7.	Total Population	3295789	
8.	Male	1722189	
9.	Female	1573600	
10.	SC	511125	
11.	St	511125	
12.	No. of big farmers	3461	
13.	No. of Medium farmers	13458	
14.	No. of Marginal farmers	6653	
15.	Small farmers	81200	
	Soil		
	Black soil	88119	
16.	Sandy soil	3717	
	Sairil soil	64737	

Area and Production of Horticulture Crops

Fruit crops

Name of the District- Darbhanga

Crops	Area in	'000 Ha	Product	duction in '000 MT			
-	2011-12	(Final)	I Estima	ates	II Estim	ates	
	Area	Production	Area	Production	Area	Production	
Fruits							
Almond							
Aonla	31	285	17	142	21	173	
Apple							
Apricot							
Bael							
Banana	1756	81830					
Ber							
Citrus							
(i) Limes /	756	5519	132	892	132	887	
lemons							
(ii) Mandarin							
Orange							
(iii) Sweet							
Orange							
(Mosambi)							
(iv) Others							
Citrus Total	756	5519	132	892	132	887	
(i to iv)							
Custard apple							
Grape							
Custard apple							
Grape							
Guava	618	4882	12	89	7	62	
Jackfruit							
Kiwi							
Litchi	824	5603	121	757	125	786	
Mango	12974	118063	13127	127873	13207	128573	
Papaya	51	1204	125	3105	125	3105	
Passion fruit							
Peach							
Pear							
Pineapple							
Plum							
Pomegranate							
Sapota							
Strawberry							
Walnut							
Other fruits	1216	10801	1216	10801	1216	10801	
Total fruits							
Vegetables							

Beans	1152	8455	1162	8708	1165	8808
Bitter guard	364	2404	360	2406	364	2580
Bottle guard	1070	22160	1070	22086	1160	23060
Brinjal	2435	51680	2560	52688	2580	52080
Cabbage	16660	30315	1800	32508	1831	35103
Capsicum						
Carrot	134	1528	134	1528	156	2160
Cauliflower	1628	28490	1628	28490	1760	36860
Cucumber	46	506	52	562	52	568
Chillies green	1388	15962	1388	15962	1421	16321
Garlic						
Elephant foot						
yam						
Muskmelon	23	278	25	300	28	362
Mushrooms						
Okra	1695	23391	1695	23391	1702	24302
Onion	1108	20941	1108	20941	1203	21945
Parwal/ pointed	172	1789	180	180		
gourd						

Area and Production of Vegetable / Spices Crops

Name of the District- Darbhanga

Crops	Production in '000 MT						
-	2011-12	(Final)	I Estima	ates	II Estim	ates	
	Area	Production	Area	Production	Area	Production	
Peas	333	2231	333	2231	350	2250	
Potato	7611	137759	7611	137759	7700	138080	
Radish	598	9202	615	9576	612	9487	
Pumpkin							
Sweet Potato	43	869	45	912	45	915	
Tapioca							
(Cassava)							
Tomato	1479	32242	1560	32597	1562	35102	
Watermelon	24	511	26	520	26	520	
Other Vegetable	1461	20308	1460	20300	1460	20300	
Aromatics							
Flowers Loose	630	342	650	345	650	345	
Plantation crops							
Arecanut							
Cashewnut							
Cocoa							
Coconut							
Total							
Spices							
Ajwan							
Betelvine							

Black Pepper						
Cardamom						
(Small & Large)						
Chillies (Dried)						
Cinnamon						
Clove						
Coriander	480	456	480	456	480	456
Cumin						
F. Greek						
Fennel						
Ginger	506	5070	506	5070	506	5070
Nutmeg						
Vanila						
Tamrind						
Turmeric						
Saffon						
Spice Total	623	15080	680	15680	780	106290

Block wise area, production of potato in district Darbhanga

SI. No.		На	Production	Remarks
			(Tonnes)	
1.	Bahedi	850	18700	
2.	Alinagar	726	15972	
3.	Manigachhi	570	12540	
4.	Benipur	480	10080	
5.	Sadar	375	8250	
6.	Biraul	560	12320	
7.	Hayaghat	860	108920	
8.	Jale	725	15950	
9.	Taardeeh	227	4994	
10.	Singhwada	965	21230	
11.	Bahadurpur	680	14960	
12.	Ghanshyampur	213	4686	
13.	Habumannagar	165	3630	
14.	Krishi place West	60	1320	
15.	Krishi place North	25	550	
16.	Kewati	320	7040	
17.	Godaboraram	225	4950	
18.	Kiratpur	320	7040	
	Total	8346	183132	

		Target						Achievement							
SI	Component	Physical			Financial					Physical		Financial			
No.		NHM	Additio nal State	NHM (85%+15% =100%)	Addition al State Share Top up (40%)	Addition al State Share (90%)	Bal anc e as on 01.0 4.20 12	Amo unt Recei ved in 2012- 13	Total fund availab le in 2012- 13 (9+10)	NHM	Addi- tional State	NHM (85%+15% =100%)	Additio nal State Share Top up (40%)	Additio nal State Share (90%)	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A.	Plantation Infrastructure & Development														
1.	Production of plant														
	material														
(a)	Public sector														
(i)	Model Nursery (2 to 4 ha) (No.)														
(ii)	Small Nursery (1 ha) (No.)														
(iii)	Rehab of existing Tissue Culture units														
(iv)	Setting of New T.C. units private sector														
(c)	Vegetable seed														
	production (ha)														
(i)	Public sector (ICAR, SAU & State Depts)														
(ii)	Private sector (50% of the cost)									1.05		0.525			0.525
	Vegetable seedling production (ha).														

Progress report for NHM, additional share Top up (40%) for NHM and additional state share (90%) for the financial year 2012-13 (Phy. in ha/ Nos. Fin. In lakh) District Darbhanga for the month of March, 2013

	Public sector 0.25/									
	ha including									
	infrastructure for 400									
	ha. of seedling									
	production.									
(iv)	Seed Infrastructure									
	(for handling,									
	processing,									
	Packaging,									
	packing, Storage									
	etc. of seeds of									
	horticulture crops.									
(a)	Public sector									
(b)	Private sector (50%									
	of the cost)									
(c)	Centre of Excellence	8.00	2.00			4.00	1.00		1.00	
	for Vegetable &									
	Fruits under Indo-									
	Israel Project									
2.	Establishment of									
	new gardens (Area									
-	expansion) (ha)									
l.	Fruits									
(a)	Cost intensive crops									
	(for a maximum area									
	of 4 ha / beneficiary)									
	(i) Perennial Fruit-									
	Graps, Strawberry,									
	Kiwin passion fruits									
	etc.									
	(II) INON-perennial									
	Dingonnlo				 					
	Makhana	100.00		 24.00		100		10,0000		40.00000
		100.00		 24.00		100		18.0899		18.08999
	(III) Banana T.C.									
	Рарауа									

	Betelvine (200 sqm								
	unit baroja +								
	planting material)								
	Nos								
(c)	Mango (5mx5m) 100	75.00	18.00			40.00	7.669		7.669
	plant / ha								
	(i) Litchi								
	(4.5 mx4.5 m) 494								
	plant / ha								
	(ii)								
	Guava (3mx3m)								
	1111 plant / ha								
	(iii) Bel, Jamun,								
	Sharifa, Ber , Kathal,								
	Sahjan								
	Second year	292.00	6.44			40.73	1.4481		1.4480
	maintenance								
	(Perennials)								
	Third year	225.00	7.875			29.89	1.49843		1.49843
	maintenance								
	(Perennial)								
	Second year								
	maintenance (Non-								
	Perennials)								
II.	Mushroom (Private								
	sector)								
	(a) Integrated								
	mushroom unit for								
	spawn, compost								
	production and								
	training								
	(b) spawn making								
	unit								
	(c) Compost making								
	unit								
	(d) Distribution of								

	Compost & Spawn							
	pack for Mushroom							
	cultivation to							
	marginal farmers /							
	women farmers							
	aroups @ 50							
	packets each farmer							
	in member (in No)							
	on 75% subsidy							
	Flowers (For a							
	maximum 2 ha/							
	beneficiary)							
(a)	Cut flower							
(b)	Bulbulous flowers							
(C)								
(d)	Loose flower							
	(Others)							
IV.	Spice (For a							
	maximum 4 ha/							
	beneficiary)							
(a)	Seed Spices &							
	Rhizomatic Spices							
(b)	Perennial Spices							
	(black pepper,							
	cinnamon, clove and							
	mutmeg)							
V.	Aromatic Plants (For							
	a maximum 4							
	ha/beneficiary)							
(a)	Cost Intensive							
	Aromatic plants							
	(Patchouli,							
	geranium, rosemary							
	etc.)							
(b)	Other Aromatic				 			
	plants (Mentha,							

	Lemongrass, Jawa									
	citronella)									
VI.	Plantation Crops									
	(For a maximum									
	area of 4 ha per									
	beneficiary)									
(a)	Cashew and Cocoa									
	including replanting									
3.	Rejuvenation /									
	replacement of									
	senile plantation									
	including canopy									
	management									
(a)	Rejuvenation /	100.00	 15.00	12.00			25.00	 6 75		6 75
(u)	replacement of	100.00	10.00	12.00			20.00	0.10		0.10
	senile plantation									
	including canopy									
	monogoment									
4	Creation of Water									
4.	Creation of Water									
4.	Creation of Water resources									
4. (a)	Creation of Water resources Community tanks /	4.00	2.40	1.92						
4. (a)	Creation of Water resources Community tanks / on farm ponds/ on	4.00	2.40	1.92						
4. (a)	Creation of Water resources Community tanks / on farm ponds/ on farm water	4.00	 2.40	1.92						
4. (a)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use	4.00	2.40	1.92						
4. (a)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC	4.00	2.40	1.92						
4 . (a)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining.	4.00	2.40	1.92						
4. (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting	4.00	2.40	1.92						
4. (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for	4.00	2.40	1.92						
4. (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for	4.00	2.40	1.92						
4. (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for storage of water in	4.00	2.40	1.92						
4 . (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for storage of water in 20 m x20mx3m	4.00	2.40	1.92						
4 . (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for storage of water in 20 m x20mx3m ponds/ wells @ Rs.	4.00	2.40	1.92						
4 . (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for storage of water in 20 m x20mx3m ponds/ wells @ Rs. 100/- cubic meter	4.00	2.40	1.92						
4 . (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for storage of water in 20 m x20mx3m ponds/ wells @ Rs. 100/- cubic meter (50% of the cost)	4.00	2.40	1.92						
4. (a) (b)	Creation of Water resources Community tanks / on farm ponds/ on farm water reservation with use of plastic / RCC lining. Water harvesting system for individuals for storage of water in 20 m x20mx3m ponds/ wells @ Rs. 100/- cubic meter (50% of the cost)	4.00	2.40	1.92						

5.	Protected									
	cultivation									
Ι.	Green House									
	Structure									
(a)	Fun & pad system									
	(50% of the cost									
	limited to 1000 Sqm									
	(in ha)									
(b)	Naturally ventilated									
	system									
(i)	Tubular structure	2000.0	9.350	7.480				2.3375	1.87	4.2075
	(50% of the cost									
	limited to 1000 Sqm									
	(in ha)									
(ii)	Wooden structure									
(iii)	Bamboo Structure									
II.	Plastic Mulching									
III.	Shade Net House									
(i)	Tubular structure									
	(500 sqm)									
ii)	Wooden structure									
iii)	Bamboo structure									
۷.	Anti Bird/ Anti hail									
	Nets									
VI.	Cost of planting	1000.00	0.525							
	material of flowers									
	for poly house									
6.	Precision Farming	1000.00	2.50							
	developed and									
	extension through									
	precision Farming									
	Development Centre									
	(PFDCs)									
7.	Promotion of									
	Integrated Nutrient									
	Management (NM) /									

	Integrated Pest									
	Management (IPM)									
(i)	Sanitary and									
	phytosanitary									
	infrastructure (Public									
	sector)									
(ii)	Promotion of									
	IPM/INM									
(iii)	Disease Forecasting									
	unit (Public sector)									
(iv)	Bio Control lab									
(v)	Plant Health Clinic									
(a)	Public sector									
(b)	Private sector (50%									
	of the cost)									
(vi)	Leaf/ Tissue									
	analysis lab (private									
	sector)									
II.	Distribution of	1000.00		3.96			1000	3.96		3.96
	Plastic Crates									
III.	Distribution of Leno	25000.00		2.25			20000		1.80	1.30
	Bag									
IV.	Distribution of									
	Banana Fruit trap									
	Bags									
8.	Organic Farming									
(a)	Adoption of Organic									
	Farming									
(b)	Organic Certification									
(C)	Vermi compost Units									
	/ organic input									
	production unit									
(i)	Permanent Structure					 				
(ii)	Vermi- Bed									
9.	Certification for									

		1		1	1	1					
	Good Agricultural										
	Practices (GAP),										
	Inclusion										
	infrastructure										
10.	Pollination support										
	through beekeeping										
(a)	Production of										
	nucleus stock										
	(Public sector)										
(b)	Production of bee										
	colonies by the bee										
	breeder										
(C)	Honey bee colony +	450.00	500	6.75	5.40	13.50					
	Hives										
(d)	Equipment including	10.00		0.700	0.56			10.00	0.700	0.56	1.260
	honey extractor (4										
	frame), food grade										
	container (30 kg),										
	net, etc.										
11.	Horticulture										
	Mechanization										
(a)	Power operated	5.00	-	0.875							
	machines / tools										
	including Power										
	Saw and plant										
	protection										
	equipments etc.										
(b)	Power Machines	1.00	-	0.60				1.00	0.60		0.60
	(upto 20 BHP) with										
	rotavator /										
	equipment										
(c)	Power machines	1.00	-	1.50				1.00	1.50		1.50
	(20 HP & above										
	including										
	accessories /										
	equipments										

(d)	Import of new								
	machines & tools for								
	horticulture for								
	demonstration								
	purpose (Public								
	sector)								
12.	Technology								
	Dissemination								
	through								
	demonstration /								
	Front Line								
	Demonstration								
	(FLD)								
	Demonstration of								
	Betelvine cultivation								
	under shade net.								
13.	Human Resource								
	Development (HRD								
(a)	HRD for Supervisors								
	& Entrepreneurs								
(b)	HRD for Gardeners								
(c)	Training of farmers								
(i)	Within the District	45.00	0.360						
(ii)	Within the State	21.00	0.315			6	0.09		0.09
(iii)	Outside the State	8.00	0.3200						
(d)	Exposure Visit of								
	Farmers								
(i)	Within the District	21.00	0.0525						
(ii)	Within the State for	4.00	0.060			4	0.06		0.06
	5 days								
(iii)	Outside the State for	4.00	0.120						
	5 days								
(iv)	Outside India								
(e)	Training / study tour								
	or technical staff /								
	field functionaries								

(i)	Within the State for	7.00	0.028						
	2 days								
(ii)	Study tour to	12.00	0.390						
	progressive States /								
	units (group of								
	minimum 5								
	participants) for 7								
	days.								
В.	Integrated Post								
	Harvest								
	management								
1.	Pack House / On								
	farm collection &								
	Storage unit								
2.	Pre-cooling unit								
3.	Distillation unit								
4.	Mobile pre cooling								
	unit								
	Cold Storage Units								
	(Construction /								
	expansion /								
	Modernization)								
6.	C.A./M.A Storage								
	Units								
7.	Refer Vans /								
	Containers								
8.	Primary / Mobile /								
	Minimal Processing								
	unit								
9.	Ripening Chamber								
	-								
10.	Evaporative / Low								
	energy cool								
	chamber (18 MT)								
11.	Preservation unit			Ì					
	(Low cost)								

12.	Low cost onion							
	storage structure (25							
	MT)							
13.	Pusa Zero energy							
	cool chamber (100							
	kg)							
C.	Establishment of							
	Marketing							
	Infrastructure for							
	Horticulture							
	produce.							
1.	Wholesale markets							
2.	Rural markets / Apni							
	mandis / Direct							
	markets							
3.	Retail Markets /							
	Outlets							
	(environmentally							
	controlled)							
4.	Static/ Mobile							
	Vending Cart/							
	Platform with cool							
	chamber.							
5.	Functional							
	Infrastructure for							
	collection / sorting &							
	grading / Packing							
	etc.							
6.	Quality Control /							
	analysis lab							
7.	Market extension,							
	quality awareness &							
	market led extension							
	activities for fresh							
	products							

D.	Special											
	Intervention											
	Tackling of											
	emergent /											
	unforeseen											
	requirement of											
	SHMs											
	Plastic Crates											
	Total	31393.00	500.00	76.1605	33.5700	37.50		21708.67	52.97	9.63	13.50	76.10
E.	Mission											
	Management											
I	State Level											
(i)	State & Districts			4.260					6.901.5			6.90175
.,	Mission offices and											
	implementing											
	agencies for											
	administrative											
	expense, project											
	preparation											
	computerization,											
	contingency etc.											
(ii)	Institutional											
()	strengthening, hire/											
	purse of vehicles.											
	hardware/software											
(iii)	Seminar,											
()	conference.											
	workshops.											
	exhibitions. Kisan											
	Mela. Horticulture											
	shows, honey											
	festivals etc.											
(a)	State Level (Rs.								<u> </u>			
()	3.00 lakh event.											
1	100% assistance,											

	max Rs. 3.00 lakh											
	per event of two											
	days)											
(b)	District Level (Rs.											
	2.00 lakh even,											
	100% assistance,											
	max Rs. 2.00 lakh											
	per event of two											
	days)											
(iv)	Technical support											
	Group (TSG) a State											
	Level for hiring											
	experts/ staff,											
	studies, monitoring											
	& evaluation, mass											
	media, publicity											
	video conference											
	etc.											
	Grand total	31393	500.00	80.421	33.5700	37.50		21708.67	59.87175	9.63	13.50	83.00175

JIT visited to Darbhanga district

S. No.	Name of the Beneficiary	Address	Crop / Component	Year of Plantation / Start	Area in Ha./ Unit	Total unit planted	Survival as on date /status	Remark
1.	Mrs. Budhni Devi	Mankauli Bharwada, Sringhwada Darbhanga	Vermi compost	2012-13	One unit	-	-	 Subsidy availed. Preparation of vermi compost is being done. Entire produce is being used for himself. No vermi wash taken, advised to prepared it.
2.	Mrs. Budhni Devi	Mankauli Bharwada Singhwada Darbhanga	Poly house	2012-13	1000sqm.	-	-	 Nothing was available in the poly house. Beds are being prepared for planting of Radish, Dhania during rainy season. Subsidy availed. Needs more training on protected cultivation.
3.	Bhadai Shani & other 50	Barhampur Jaley,	Makhana water pond	2013-14	10.0	-	-	 About 10 ha Pond given on lease by the department.

	beneficiaries	Darbhanga						•	Total production about 4000 monds (40 kg / monds),
								•	One mond gives about 13-14 kg puffed stuff (Makhana)
								•	Rs. 20 per kg is given to the labour that collects the makhana seeds from Pond below water.
								•	Makhana growers were demanding subsidy for boat and pesticides etc.
4.	Anil Kumar Jha	Sanehpur Bujurg, Singhwada	Rejuvenation of old mango	2013-14	0.5 ha	50 Nos	49 Nos	•	Rejuvenated mango plants attaining good growth.
		Darbhanga	uee					•	Thinning demonstrated, advised to do it as early as possible.
								•	Spray of pesticides recommended to new growth.
								•	Advised to take care of stem borer which comes in rainy season.

5.	Sanjay Kumar Bhagat	Sanhapur Bujurg, Singh Wada Darbhanga	Pan cultivation	2013-14	0.6			•	Thatched Bareza is used for Pan Cultivation. Shade net Bareza needs to be introduced for Pan Cultivation.
6.	Sinkandar Prasad	Vishnath Patti, Singhwada Darbhanga	Bee keeping	2013-14	15 boxes @ Rs.3000/ Box with colony			•	Beneficiary has raised 100 boxes out of 15 boxes taken under MIDH. There was complaint from the bee growers that bees spread viral disease more in area where bee boxes are placed. This is debatable issue needs to be discussed.
7.	Mrs. Budhni Devi	Mankauli Singhwara, Darbhanga	High Density mango	2012-13	0.4 5x5m	160	157	•	In High density plantation Dasheheri and Langra cvs taken. Generally we recommend Amrapali to be taken for such plantation. Planted saplings were not good had tumour around graft union, advised not to plant such saplings, supplied by the RAU, Samastipur.

Darbhanga

Activities visited

- Area Expansion programme, High Density of mango, Makhana, pan.
- Vermi compost
- Protected cultivation
- Rejuvenation of old mango orchards.
- Bee keeping as pollination support.
- Micro irrigation.

Observations

- In vermi compost unit, farmers are not taking vermi wash which is good to be used as a foliar spray on vegetables and other crops.
- Display board for MIDH is not placed at visiting sites.
- JIT observed that Farmers need training on IPM and protected cultivation about crop husbandry for the entire year.
- Makhana growers demanding subsidy for boat and pesticide for production of Makhana.
- For High Density mango orchard, inferior quality of planting material was given. There was tumour around bud union, in more than 10% mango plants supplied by the RAU Samastipur as informed by the grower.
- There is good scope for bee keeping as pollination support to horticulture in the district. Shri Sikander Prasad's services may be utilized as resource person for bee under MIDH districts.

Visit of Makhana Research Centre, Darbhanga

Met Dr. Lokender Kumar Sr. Scientist (Agronomy) in the absence of Incharge of Station. Discussed about the cultivation of Makhana viz. salient achievement and problems faced by the growers in this trade. The effective use of stagnant water bodies like ponds, land depressions, oxbow lakes, Swamps and Ditches is possible for Makhana cultivation, Integration of Makhana with fishes and water chestnut has been found one of the viable farming system models at this centre. In the State of Bihar, major makhana producing districts include Darbhanga, Sitamarhi, Madhubani, Sahrsa, Supaul, Araria, Kishanganj, Purnia and Katihar. Approximately, 80% of total production of processed makhana comes from Darbhanga, Madhubani, Purnia and Katihar districts. Total area under Makhana cultivation is about 13,000 ha.

He further informed that the production technologies are available by now, processing in Makhana is still carried out manually. Sincere attempt are, therefore, needed for mechanization of seed grading and popping, which is otherwise highly skilled, very tedious and painstaking task, carried out by fisherman community in Bihar. He stated that even for horizontal expansion of Makhana cultivation, Mechanization is essentially required. Credit facilities to Makhana growers also need to be strengthened besides ensuring marketing facilities. Further he stressed that the partnership with different stake holders in supply chain and value addition of makhana of regional, National and International level will give paradigm shift to Makhana at global level. Following salient achievements of the centre was also discussed as given below.

- A total number of 112 germplasm of Makhana have been collected and evaluated, and 24 pure lines have been isolated, out of which six have been found most promising for higher productivity.
- The seed yield of the promising strains have been found to be 2.8 t/ha compared to 1.6 t/ha in local check.
- One promising line of Makhana is in the pipe line for release as a variety.
- Makhana based cropping systems; i.e, Makhana- Water chestnut, Makhana-Barseem, and Makhana-Rice-Wheat have been developed.

- Makhana with fish and Water-Chestnut integrated farming system model have also been developed which is gaining popularity among the farmers.
- Economics of different Makhana based cropping systems have been worked out and net monetary returns have been recorded highest through Makhana-Rice-Wheat cropping system (Rs. 1,22,570.00 per ha), followed by Makhana-Barseem (Rs. 98,465.00 per ha), and Makhana- Water chestnut (Rs. 88,790.00 per ha).
- Net monetary returns through Makhana-Fish-Water chestnut was estimated to be Rs. 88,910.00 per ha.

District profile of Madhubani

The district is located in the North- Eastern part of agro-climatic zone-I

Geographical Area-	3.53 lakh ha
Cultivable Area	2.33 lakh ha
Area under Horticulture crop	0.28245 lakh ha

Horticulture crop Area					
Fruit					
Mango	20200 ha				
Other fruits	825 ha				
Vegetables					
Potato	6125 ha				
Other Vegetables	1605 ha				
Total:	28245 ha				

State Wise Physical/Financial Targets & Achievements (Madhubani) year 2012-13.

Component Name	Target	2013-14	Achievement 2013-14		
	Phy	Fin	Phy	Fin	
A. PLANTATION INFRASTRUCTURE & DEVELOPMENT					
1.Production of planting material					
1.1Nursery & TC Units					
(a) Public sector					
(i) Model nursery (2 to 4 ha)					
(b) Private sector					
(i) Small Nursery (1 ha.)					
(ii) Setting of New T.C. Units Private sector					
(C) Vegetable seed production (ha.)	12	3.00	-	-	
(i) Public Sector (ICAR, SAUs & State Depts.)					
(ii) Private sector (50% of the cost)					
(d) Seed Infrastructure (For handling,					
processing, packaging, storage etc. of seeds of					
horticulture crops.					
(a) Centre for Excellence for Vegetable & Fruit					
under Indo-Israel Project					
2. ESTABLISHMENT OF NEW GARDENS (AREA EXPANSION) (HA).					
(i) Fruits					
(a) Cost intensive crops (for a maximum area of					
4 ha/ beneficiary)					
(i) Non- Perennial fruits					
(a) Banana (TC)					
(b) Papaya					
(C) Betelvine (200 sqm units baroja + planting material) Nos					
(II) High Density Planting					
(i) Mango (5mx5m) 400 plants/ ha	50	12.00	45.20	10.87	
(ii) Litchi (4.5 m x4.5m) 494 plants/ha					
(iii) Aonla (4mx5m) 500 plants/ha					
(iv) Guava (3m x 3m) 1111 plants / ha.					
(III) Second Year Maintenance (Perennials)	163.00	3.60	-	-	
(IV) Third Year Maintenance (Perennials)	46.00	1.61	-	-	
(V) Second Year Maintenance (Non-Perennials)					
VI. Mushrooms (Private sector)					
(a) Integrated Mushrooms unit for spawn.					
Compost production and training					
(b) Spawn making unit					
(c) Compost making unit					
VII. Flower (For a maximum 2 ha /					
beneficiary)				<u> </u>	
(a) Cut flower (Rose)					
(b) Bulbalious flowers					
(c) Loose flower (Small & Marginal Farmers)					

VIII. Spices (For a maximum 4 ha/				
beneficiary)				
(a) Seed Spices & Rhizomatic Spices				
beneficiary)				
(a) Other Aromatic plants (Mentha,				
Lemongrass, Jawa citronella				
2 Deinventation / Deplecement of carile	000	54.00		
3.Rejuventation / Replacement of Senile	200	54.00	-	-
A Creation of Water resources				
(a) Water Harvesting System for individual for	1	1 32	4	1 3 2
storage of water in 20 m x 20 m x 3 m ponds /	-	4.52	-	4.52
wells @ Rs 100-/cubie meter (50% of the costs)				
D. Special Interventions (100% State share)				
(i) Distribution of Leno Bag (Unit cost- Rs 10/	2500	2 25	-	-
Leno bag. Sub 90% of cost. Max. Rs. 9/unit	2000	2.20		
8. Protected cultivation				
I. Green House Structure				
(a) Naturally Ventilated				
(i) Tubular structure (50% of the cost limited to				
1000 Sqm (in ha.)				
II. Plastic Mulching				
VI. Cost of planting material of high value				
vegetables grown in poly house (Limited to				
500 sqm per beneficiary)				
VII. Cost of planting material of flowers for poly house				
7. Promotion of integrated nutrient				
management (IPM)				
(i) Leaf / Tissue analysis lab (Private sector)				
8. Organic Farming				
(a) Adoption of organic farming				
(b) Organic Certification				
(c) Vermi Compost units / Organic input				
production unit				
(d) Vermi-Bed				
10. Pollination support through beekeeping				
(a) Honey bee colony + Hives	1050	22.95	1050	22.95
(b) Equipment including honey extractor	10	1.26	10	1.26
(4 frame). Food grade container (30 kg). net,				
etc.				
11. Horticulture Mechanization	F 00	0.075		
(a) Power operated inachines / 100is including	5.00	0.875	-	-
(b) Power Machines (Unto 20 PUD) with	1	0.60	1	0.60
rotavator / equipments	I	0.00	1	0.00
(b) Power Machines (20 HP & above including	1	1.50	1	1.50
accessories/ equipments)		1.00		1.00
12. Technology Dissemination through	10	70.00	10	67.50
demonstration / Front Line Demonstration of				
Betelvine cultivation under shade net				

13. Human Resource Development (HRD)				
(a) HRD for Gardeners				
(b) Training of farmers				
(i) Within the District				
(ii) Within the State				
(iii) Outside the State				
(c) Exposure Visit of Farmers				
(i) Within the District				
(ii) Within the State for 2 days				
(iii) Outside the State for 5 days				
(iv) Outside India				
(d) Training/ Study tour of technical staff / field				
functionaries				
(i) Within the State for 2 days				
(ii) Study tour to progressive States / units	0.390			
(group of minimum 5 participants) for 7 days				
B. Integrated Post Harvest Management				
1 Pack House / On farm collection & Storage				
unit				
2. Pre-cooling unit				
3. Distillation unit				
4. Mobile pre cooling unit				
5. Cold Storage Units (Construction /				
expansion / Modernization)				
6. C.A/M.A. Storage Units				
7. Refer Vans / Containers				
8. Primary/ Mobile Minimal Processing unit				
9. Ripening Chamber				
10. Evaporative / Low Energy cool chamber (8				
MT)				
11. Preservation unit (Low cost)				
12. Low cost onion storage structure (25 MT)				
C. ESTABLISHMENT FOR MARKETING				
1 Pural markets / Appi mandis / Direct markets				
2. Rotail Market / Outlets (onvironmentally				
controlled)				
3 Functional infrastructure for collection / sorting				
& grading / Packing etc.				
4. Quality Control / analysis lab				
(a) Public sector				
(b) Private sector				
5. Market extension, quality awareness & market				
led extension activities for fresh products				
TOTAL	4,170.00	179,5665	1,191.2	109,4445
E. MISSION MANGEMENT				
(i) State & Districts Mission offices and		2 08		2 08
implementing agencies for administrative	_	2.30	_	2.30

		1	
expenses, project, preparation computerization,			
contingency etc.			
(ii) Institutional strengthening, hire/purchase of			
vehicle, hardware/software			
(iii) Seminars, conference, workshop,			
exhibitions, kisan mela, horticulture shows,			
honey festivals etc.			
(a) State level (Rs. 3.00 lakh even, 100%			
assistance max Rs. 3.00 lakh event, 100%			
assistance max Rs. 2.00 lakh per even of 2			
days)			
(b) District level (Rs. 2.00 lakh even, 100%			
assistance max Rs. 2.00 lakh per event of 2			
days)			
(iv) Technical support group (TSG) State level			
for hiring expert staff, studies, monitoring mass			
media, publicity video conferences etc.			
Grand Total	4170.00	182,54645	 112,4245

JIT visited to Madhubani district

S. No.	Name of the Beneficiary	Address	Crop / Component	Year of Plantation / Start	Area in Ha./ Unit	Total unit planted	Survival as on date /status	Remark
1.	Shiv Kumar Sharma (Chaupal)	Sagarpur Pandaul, Madhubani	Bee keeping 25 boxes @ Rs. 3000/ Box	2012-13	25 Boxes	-	-	 Initially, he has started its own and subsequently he took subsidy from MIDH for more boxes.
								 During discussion bee keeper informed that if nylon net is given, Beekeeper can make crop specific honey.
								• The Bee keeper is a resource person imparts training to other beneficiaries.
2.	Aiet Narain Mahato	Pipra, Madeypur Madhubani	Drip	2013-14	1.2			 Brinjal and bitter gourd are taken in the field.
3.	Vaidyanath Rout	Chinauraganj, Jhanjharpur, Madhubani	Rejuvenation of mango cv Langra	2013-14	0.4	55 Nos		 All plants are healthy but thinning is needed. Leaf spot to be control by applying pesticides as advised.

4.	Vaidyanath Rout	Jhanjharpur	High Density	2011-12	0.4	160	-	•	Good growth of plants needs
		Chinauraganj,	of mango						staking.
		Madhubani							
								•	Cvs Amrapali, Dusheheri and
									Langra saplings planted in
									H.D. advised to go for
									Amranali for H D plantation
									, inapan lor n.D. plantation

Madhubani

Activities visited

- 1. Area Expansion programme, mango (High density)
- 2. Rejuvenation of mango
- 3. Bee keeping as pollination support.
- 4. Drip in vegetables.

Observations

- 1. Heavy bearing in mango orchard noticed where bee boxes were placed as pollination support.
- The beneficiary Shri Sheo Kumar Sharma, rearing bees for the last 15 years. The Bee boxes kept under the mango orchard had bumper fruiting this year. Department of Horticulture may utilize his services as resource person for Bee as a pollination support.
- 3. Anthracnose and other leaf spot diseases noticed on rejuvenated plant flush, need to be control by applying pesticides as suggested.
- 4. Under high density planting, dwarf cultivar like Amrapali may be taken instead of any local cultivars.
- 5. Display board and MIDH logo is not found at all sites visited.

Muzaffarpur District

District profile: Muzaffarpur district was established during 1875 and falls between 25⁰, 54⁰ and 26.20⁰ North latitudes and 54.83 to 85.55⁰ East longitudes. The average altitude above mean sea level is 170 feet.

North	Sitamarhi/ East Champaran
South	Vaishali / Chapra
East	Darbhanga / Samastipur
West	Saran / Gopalganj

Boundary of district is as follows

Administratively, the district is having two sub division consists of 16 Blocks, 28 police station, 11 Nakas, 6 TPOI, 387 Panchayats & 1827 revenue villages. One main post office, 54 sub post offices and 43 Telephone centre. Total area of district-3122.56 sq. km consists of one big city and 1827 villages. As per 2011 census, total population is given below.

Total	4778610
Male	2517500
Female	2261110

Population Density	1506 per sq. km.
Population Expansion rate	27.54
Gender ratio	Male & female ratio is 1000:898

Upto 0 t	o 6 year	7 year and above		
Female	391076	Female	1870034	
Male	426633	Male	2090867	
Total	817709	Total	3960901	

Literate	e / Literacy	Pe	Percent literacy		
Female	1062511	Female	56.03		
Male 1539154		Male	78.38		
Total	26010665	Total	67.04		

Geographical background

Geographical area	317591
Cultivable land	247721
Non cultivable land	59270
Net cultivable area	219963
Cultivable waste land	344
Alkaline soil	5230
Irrigated land	89964
Horticulture land	23877

Main horticultural crops

Fruit	Area (ha)	Production	Fruit	Area (ha)	Production
		in tons			(tons)
Mango	10498	97481	Guava	1139	72912
Litchi	7840	45472	Citrus	502	3613
Banana	5143	258687	Coconut	572	4233

Flower

Marigold	11.0	Rajnigandha	5.50

Target for vegetable production

Crops	Area (ha)	Production (tonne)	Crops	Area (ha)	Production (tonne)	
Potato	10115	202300	Cauliflower	3576	62128	
Cabbage	2674	44984	Onion	2392	48892	
Tomato	3393	48525	Chilli	1769	22247	
Brinjal	2746	60928	Bhindi	2704	48158	
Cucurbits	1342	25488	Sponge gourd	1884	28345	
Jhiguni	349	2596	Bittergourd	346	2878	
Parwal	249	4462	Bodi	491	3754	
Other	1553	28687				

Main rivers: Budhigandak, Gandak, Lkhandai. 40% area of the district is flood prone.

Soil: Soil is having more lime, Aluvial / Calcareous, Lomi, ph: 7 to 8.5. This type of soil is good to grow different types of crops.

JIT visited Muzaffarpur district

S. No.	Name of the Beneficiary	Address	Crop / Component	Year of Plantation / Start	Area in Ha./ Unit	Total unit planted	Survival as on date /status	Remark
1.	Shri Abhinash Kumar	Bhitauli Sarriya, Muzaffarpur	Gerbera under poly house	2011-12	1000 Sq. m		98%	 Constructed by Sheel Biotech, Ltd. Total cost Rs. 9,93500/- Subsidy availed. Gerbera was planted one month ago not growing well, advised for fertigation.
2.	Shri Abhinas Kumar	Bhitauli, Sarriya, Muzaffarpur	Drip in Mango / Guava / Litchi	2013-14	2 ha Netafin	200	180	 Subsidy availed Cracking in litchi fruit noticed. Mango crop was good Advised to maintain / canopy.
3.	Mr. Prabha Shankar	Mohammadpur Kothi, Dholi Muzaffarpur	Vegetable market Apni Mandi	2012-13	1.5 ha	-	-	 Out of 20 lakh, Rs. 18 lakh availed as subsidy for construction of Apni Mandi (Tin Shed, plate form and public utilities).
								• Rs. 5 per farmer charged during market day.
								• About 1500 farmers come to sale their produce.

4.	Mr. Prabha Shanker	Simra Srikant Dholi, Muzaffarpur	Vermi compost	2010-11	One unit	-	-	 Producing compost for own purpose. Rs. 30,000 given as subsidy for the unit
5.	Shri Prabha Shankar	Simra, Srikant, Dholi, Muzaffarpur	Poly house	2013-14	1000 sqm.	-	-	 Rs. 8.41 lakh sanctioned as subsidy. Presently there was no crop in poly house. Subsidy is yet to be released.
6.	Shri Shashi Shankar	Simra, Srikant Dholi, Muzaffarpur	Onion storage	2012-13	20 MT	-	-	Subsidy released.Presently not in use.
7.	Shri Shashi Shankar	Simra, Srikant Dholi, Muzaffarpur	High Density plantation of litchi	2013-14	1 ha (4.5x4.5 m)	-	-	 Gap filling is needed. Needs to control mite as noticed on leaves. Canopy to be managed properly.
8.	Shri Shashi Sankar	Simra, Srikant, Dholi, Muzaffarpur	AEP, litchi	2012-13	1 ha	100	90	 Gap filling not done. Canopy to be maintained. Spraying for mites needs to be done.

Muzaffarpur

Activities visited

- 1. Area Expansion programme, mango/ litchi,
- 2. Protective cultivation
- 3. Drip in fruit crop / vegetable.
- 4. Apni Mandi
- 5. Vermi compost
- 6. Onion storage
- 7. High Density of litchi

Observations

- JIT noticed that poor quality of inputs particularly planting material is a major impediment in the district, efforts, should be made to ensure quality planting material supplied to the needy farmers.
- Farmers may be educated in respect of crop to be taken under protected structure in all the seasons.
- Mites in litchi observed in most of the orchards, it is advised to do pruning and spray miticides to control the pests.
- Apni Mandi located near Dholi needs further expansion to accommodate more traders during market (Haat) days.
- Display board and MIDH logo needs to be placed at beneficiary site.
- Local farmers are adopting intercropping in orchards, promoting vegetables / pulses and inter crop which is appreciable but no IPM practice followed against vegetable pest due to ignorance.

PHOTOGRAPHS

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Discussion with Makhana growers

Inner view of poly house without crops

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