Report of the Joint Inspection Team on their inspection visit to (Jalandhar, Ludhiana,) Districts of Punjab during January, 2014 (11th Jan.–16th Jan., 2014).





National Horticulture Mission Department of Agriculture and Cooperation (DAC), Krishi Bhavan, New Delhi

Report of the Joint Inspection Team to review the progress of NHM,NMMI and VIUC and RKVY on their inspection visit to Punjab (Ludhiana,Jalandhar and Hoshiarpur) Districts of Punjab during January, 2014 (11th Jan.–16th Jan., 2014).

The Joint Inspection Team (JIT) comprising Dr. R.C. Upadhyaya, Chief Consultant, National Horticulture Mission, Shri R. P. Singh, AD (MI) National Horticulture Mission visited Punjab during 11-16th January, 2014 to review the progress under National Horticulture Mission and other programmes in the State. Dr.Rakesh Sharda, Inscharge PFDC, Department of Soil and Water Conservation Engineering, PAU, Ludhiana joined the Team. Dr. L. S. Brar, Director Horticulture & Dr. Gurkanwal Singh, Joint Director and Mission Di rector, Punjab coordinated the visit of the Team.

Components of NHM, RKVY, NMMI, and other programmes:

- Crop specific cluster at district level.
- Nurseries management and progress including accreditation of nurseries.
- Uvermin compost units under SHM.
- □Flowers and vegetable production under protected conditions.
- Micro irrigation scheme and use of plastic in mulching, irrigation and precision farming.
- □Placement of technical Staff at Management and also at field Level.
- Other activities and KVK, s support including Financial Progress: (Rs. in lakhs).
- National Mission on Micro Irrigation (NMMI).
- National vegetable Initiative (NVI).
- Rastriya Krishi Vikash Yojana (RKVY).

Financial Progress

An allocation of Rs. 75.00 crore has been approved including GOI share of 63.75 crore for Annual Action Plan 2013-14. More than 90% funds are utilized.

Year wise details of Outlay, Funds Released and Expenditure under NHM in Punjab.

Year	Outlay(GOI Share)	Released	Expenditure
2005-06	60.74	28.69	6.97
2006-07	59.74	11.50	17.75
2007-08	68.54	24.10	17.14
2008-09	78.02	14.12	25.48
2009-10	38.54	25.78	36.09
2010-11	42.50	35.00	37.03
2011-12	46.75	47.02	39.57
2012-13	62.90	57.90	65.88
2013-14	63.75	30.00	24.80

Physical Progress till 2012-13:

- An additional area of 0.38 ha of identified horticulture crops are covered.
- Four nurseries have been established for production of quality planting materials.
- An area of 10270 ha. has been covered under rejuvenation of old and senile orchards.
- Organic farming has been adopted in an area of 6300 ha for promotion of organic cultivation of horticultural crops.
- IPM practices have been adopted in an area of 2000 ha.
- 22 IPM/INM infrastructure facilities such as Leaf tissue analysis labs, disease forecasting units have been created.
- 424 community water structures have been created.
- Under the component of Post Harvests Management, 366 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.
- 49 market infrastructures have been set up.

Observations:

- Nursery established by private sector at District Hoshiarpur for providing disease free planting material of Kinnow have serious problem of Thrips and Mites in open conditions and in shade nets. Therefore, Private nurseries should be regularly visited to suggest proper control measures and assured plants are free from such pests being carrier of virus. Farmers should also follow the spray schedule as per scientific recommendations. The entire established nurseries should mandatory be accredited by National Horticulture Board.
- Farmers should be provided quality seeds/seedlings of recommended varieties of vegetable crops from reliable seed companies/source .Deputy Director Horticulture of respective district should have MOU with such companies to supply quality seeds especially of F1vegetable seeds.
- Jagtar Singh integrated mushroom production unit a private entrepreneur at Samrala, Ludhiana supported from NHM needs trained manpower to make spawn making laboratory operational.
- Recommendation for suitable Intercrops for Kinnow orchards from PAU,Ludhiana may be adopted with more emphasis on leguminous crops of vegetables / pulses /oil crops .

- JIT observed that Pack house developed/available to beneficiaries are not properly designed. It is desirable to provide design appropriate to local needs to be standardized by SHM and provide structural design to districts level Officers.
- Kinnow cluster needs more assistance for purchase of power sprayer from mechanization component of NHM.
- JIT observed that heavy load of pesticides are being used in Kinnow and also for vegetable crops. Therefore, IPM/IMP schedule recommended by PAU, Ludhiana needs to be adopted to reduce pesticide load.
- Plant protection and fertigation schedule for protected cultivation of vegetables and floricultural crops developed by PFDC should be adopted and farmers should be trained accordingly.
- Framers used flood irrigation where micro sprinkler irrigation facilities are provided in the fields of seed production of potato and production of vegetables. This practice should be discouraged. Priority should be given for drip irrigation along with plastic mulching as per recommendation of PFDC.
- FIG should also be supported to have a cool chamber at collection centres to regulate the supply of vegetables to the nearby towns.
- Aggregators for NVUI scheme are not yet finalized. Efforts should made to select aggregators for fresh vegetables supply chain.

Potential of Horticulture in Punjab:

Horticultural crops are being grown in the State in about 2.77 lakh hectares area with an innual production of 51.74 lakh tonnes. The horticulture sector is contributing significantly to 3DP in agriculture of the State. Commodity-wise details are given below.

Crops	Area ('000ha)	Production ([,] 000mts)
Fruits	71.47	1409.86
Vegetables	178	3674.53
Flowers (Seed Production)	2.04	10.05
Spices & Aromatic crops	18.37	68.21
Flowers (fresh fruit)	7.12	1.29
TOTAL	277.25	5173.64

The Punjab State leads in citrus production among the fruit crops with the largest production of Kinnow. This crop occupies an area of 38837 ha contributing 64.20% of the total fruit production of Punjab. Likewise Potato is the major leading vegetable crop of Punjab having an area of 84110 ha with 60.11 % the vegetable production. Apart from Kinnow, other fruit crops like Guava, Peach and Pear has significant area in the state.

SI.N	Crop Clusters	Districts	Crops
1	Fruits	Hoshiarpur, Bathinda, Mukatsar & Abohar.	Kinnow
(Fereninais)		Jalandhar, Ludhiana, Nawan Shahar, Patiala.	Peach
		Ludhiana, Sangrur, Patiala, Mohali	Guava
		Amritsar, Tarn Taran & Jalandhar	Pear
	Fruits (Non Perennials)	Ludhina, Mohali (S.A.S Nagar) & Fatehgari Sahib.	nBanana
2	Vegetables	Jalandhar, Hoshiarpur, Ludhiana & Bathinda	Potato
3	Flowers	Patiala, Ludhiana, Mohali, Fatehgarh Sahib & Sangrur.	Gladiolus ,Marigold
4	Spices	Ludhiana, Amritsar, Hoshiarpur & Gurdaspur. Garlic & Turmeric.	Garlic & Turmeric.

Approved Clusters and Crop Matrix under NHM:

Sub Plan for nursery:

Sr. No	Name of Fruit Plant	Area (Ha)	Variety	No. of Plants require d	Source of Availability			Total
					Public Sector Private Sector			
					Deptt.	SAU	Regist. Nurseries	
1.	Citrus HDP	100	Kinnow	55000	95000	70000	1100000	1265000
2.	Citrus Normal	2000	Kinnow	550000				
3.	Guava	100	A- Safeda	27500	7000	10000	15000	32000
		50	L- 49	13750	5000	10000	10000	25000
4.	Peach	50	Shan-e- Punjab	13750	15000	10000	-	25000
5.	Pear	50	Pathar Nakh	10000	10000	7000	-	17000
		50	Punab Nakh	10000	5000	12000	-	17000

Selection of Crops for Intervention under NHM and Rationale:

The focus crops were selected under NHM on the basis of following parameters:

- 1. Market linkages (existing and potential)
- 2. Production advantage potential in the domestic market
- 3. Export potential

Sr. No.	Focus Crops	Market linkage				Domest ic Market Potenti al	Exp ort Pot enti al
		AEZ Export	Mandis	Proces- sing units	Cold Storage / Ref. Van		
1	Kinnow	-	-	~	-	High	Hig h
\2	Guava	-	~	-	-	High	-
3	Pear	-	✓	-	-	medim	-
4	Peach	-	~	-	-	High	-
5	Patato	~	~	-	~	High	Hig h
6	Flower (Fresh)	-	✓ 	-	✓	High	Hig h
7	Flower (Seeds)	-	-	-	-		Hig h

Existing Planting Material Production Units (nurseries) in the State:

Disease free planting material is pre-requisite for establishment of healthy orchard resulting in quality production. There are about 85 Government as well as private registered nurseries in the state from where good quality disease free planting material is supplied to the growers. Apart from this T.C. units are also proving helpful in meeting the arising demand of planting material especially tissue cultured plants of Banana.

Nursery Act & Certification of Planting Material:

The Nursery Act of the State was old & needed amendments. The required amendment has been incorporated in the act. This act is submitted to the State government for approval. After renewal of the nursery act, the nursery owners could be punished with fine or imprisonment if he sells the inferior planting material. Certification of planting material has been made mandatory prior to sale of fruit plants. While procuring the planting material from private nurseries as well as Govt. nurseries, due procedure is adopted for certifying the material by a Technical Committee consists of SAU's representative.

The Directorate of Horticulture has already issued instructions to Private Nurseries/District horticulture heads to get the nurseries accredited from NHB prior to the sale of fruit plants otherwise they will not be eligible for the sale of planting material.

Certification of Planting Material:

There are about 85 Government as well as private registered nurseries in the State from where good quality disease free planting material is supplied to the growers and out of these 30 nurseries are accredited with National Horticulture Board.

Nursery Act & Certification of Planting Material:

This act is submitted to the State Government for approval after necessary amendments. Certification of planting material has been made mandatory prior to sale of fruit plants. Due procedure is adopted for certifying the material by a Technical Committee consisting the representative of SAU before the onset of plantation season.

Existing Infrastructure for Post Harvest Management & Marketing in the State Pack Houses:

Under NHM 194 Pack Houses have been set up in the State for fruits and vegetables. These Pack Houses will reduce the post harvest losses to some extent. Pack house is the basic need of horticultural sector for collection grading & sorting of the produce. There is big potential of the activity in the state.

Cold Storages:

The total capacity of cold storage facilities was about 1393000 MT before launching the NHM scheme i.e. before 2005-06. Over 80% of this capacity is utilized by potatoes alone. Thus, at present, total 465 cold storages

Sr. No	Number of Cold Store Before NHM	Capacity (M.T)	Number of Cold Store After NHM	Capacity (M.T)
1.	425	1393000	465	1536992

Are available in the State. Few more projects have also been submitted to Govt. of India for sanction

Markets/Mandis

There are 110 Agriculture Produce Marketing Committee (APMC) markets/mandies in the State. The current processing is less than 2% of the total horticulture production. There is potential for increase in the number of processing units especially for Kinnow, Potato, Turmeric, Aonla, Garlic and Coriander with linkage to the proposed Food Parks

S. No.	Name of Processor	District	Product
1.	Punjab Agro Juices Limited Village Alamgarh	Ferozepur	Kinnow Juice Concentrate, other fruits and vegetable Juice Concentrate.
2.	Punjab Agro Juices Limited Unna Road	Hoshiarpur	-Do-
3.	Farmer Agriculture produce organization, Kangmai	Hoshiarpur	Turmeric processing.
4.	Iqbal Randhawa processing unit, Phuglana	Hoshiapur	Kinnow
5.	Kinnow Waxing and Grading Center, Badal.	Shri Mukatsar Sahib	-Do-
6.	Kinnow Waxing and Grading Center, Badal.	Shri Mukatsar Sahib	-Do-
7.	Kinnow Waxing and Grading Center, Talhiwala Jattan, Teh. Fazilka	Ferozepur	-Do-
8.	Kinnow Waxing and Grading Center, Kangmai	Hoshiarpur	-Do-
9.	Kinnow Waxing and Grading Center, Chhauni Kalan,	Hoshiarpur	-Do-

Status of National Horticulture Mission in Punjab

The Centrally Sponsored Scheme of National Horticulture Mission (NHM) is being implemented in 16 districts on a Mission mode approach to address all the issues related to holistic development of Horticulture in the State since 2005-06.

The programme in the State of Punjab is being implemented by the State Horticulture Development Society through District Mission Committees involving farmers, Societies, NGOs, Grower Associations, SHGs, State institutions etc. The programme is being implemented in 16 districts. The district covered under the programme includes Firozpur, Bhatinda, Muktasar, Amritsar, Hoshiarpur, Gurdaspur, Kapurthala, Ludhiana, Jalandhar, Patiala , Fatehgarh Sahib, Taran Taran, Faridkot, Nawasahar, Sangrur and SAS Nagar Mohali.

The focus crops identified under the programme includes Citrus, Guava, Ber, Pear, Grapes, Litchi, Flowers, Spices and Aromatic plants.

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

Physical Progress

Salient progress till 2012-13 is as follows:-

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Highlights of States

- Punjab produces about 5.17 m. MT of horticultural produce from an area of 0.28 m. ha. accounting for 2 % of horticulture produce in the country. Major share of production is from vegetables (71%) and fruits (27.4%)
- 7.79 lakh MT of fruits have been traded in organized markets with average price of Rs. 25.36/ Kg.
- 18.14 lakh MT of vegetables have been traded in organized markets with average price of Rs. 10.67/ Kg

Fruits

Citrus

- Punjab is ranked at third place in production of citrus in the country and accounts for 11.9% of total production of the country.
- The production of citrus forms 66.40% of total fruit production of the State. State produces 0.94 m. MT of citrus in the State in an area of 0.05 m. ha. The productivity of the crop is 20.4 MT/ha, which is second highest after Karnataka.
- Punjab is leading producer of mandarin orange and accounts for 29% of the production of orange mandarin production in the country, with productivity of 21.4 MT/ha. which is highest in the country.
- Production of orange mandarin is concentrated in the belts of Firozepur, Hoshiarpur, Bathinda and Shri Mukatsar Sahib.
- Recommended varieties of orange mandarin in the State are Nagpur mandarin and kinnow.
- State also contributes about 1.9% of total mosambi production in the country with productivity of 8.00 MT/ha, which is the third highest after Karnataka and Andhra Pradesh.
- Major mosambi producing belts in the State are Fazilika (Abohar), Ferozepur, Faridkot and Hoshiarpur.
- The main fruit of citrus group grown in the Punjab is Kinnow.
- 1.26 lakh MT of citrus have been traded in organized markets with average price of Rs. 28.80/ Kg.

Guava

- Punjab accounts for 6.9% of total production of guava and the sixth most guavas producing State in the country.
- State produces about 0.17 m MT of guava from an area of 0.008 m ha having productivity of 22.00 MT/ha which is the highest in the country.
- Production of guava is concentrated in the belts of Patiala, Ludhiana, Sangrur, SAS Nagar, Jalandhar, Sri Mukatsar Sahib, Firozepur, Fazilika, Bhathinda, Ropar and Hoshiarpur.
- Recommended varieties of guava in the state are sardar (L-49), Allahabad Safeda, Lalit, Shweta, Hissar Safeda and Hissar Surekha.

 4127 MT of guava have been traded in organized markets with average price of Rs. 9.59/ Kg.

Litchi

- Punjab is ranked fifth in litchi producing state and is contributing about 4.6% to total litchi production in the country.
- The production of litchi is about 0.04 MT from an area of 0.002 m. ha. having productivity of 14.4 MT/ha. which is highest among the litchi producing states in the country.
- Major litchi producing belts in the State are Gurdaspur, Hoshiarpur and Ropar.
- Recommended varieties of litchi in the State are Rose Scented, Dehradun and Calcutta.

Vegetables

Cauliflower

- State produces about 2.26% of the total production of cauliflower in the country and 4.3% of total vegetable production in the State.
- The productivity is 17.87 MT/ha in the State.
- The production of cauliflower is concentrated in Gurdaspur, Fatehgarh Sahib and Hoshiarpur.
- Varieties of cauliflower recommended for the state are Pusa Deepti, Improved Japnese, Pusa Shjubra, Pusa Early Synthetic, Pusa Paushja, Pusa Snowball K-1, Snowball-KT-25, Pusa Himjyoti, Pusa Hybrid-2, Pusa Kartik Sankar, Kashi Kunwari, Hissar-1, Pant Shubra and Pant Gobhi-3.
- 1.30 lakh MT of cauliflower have been traded in organized markets with average price of Rs. 11.05/ Kg.

Peas

- Punjab is the fifth largest producer of peas and accounts for 5.4% of total production of peas in the country.
- State produces about 0.20 m MT of peas from an area of 0.02 m ha having productivity of 10.2 MT/ha.
- The major peas growing belts in the State are Jalandhar, Patiala, Amritsar, SBS Nagar and Hoshiarpur.
- Recommended varieties of peas in the State are Bonneville, Arkel, Pusa Pragati, Arka Ajit, Kashi Nandini, Pant Matar-2,3,4,5, Azad-P-2,4 and 5.

Potato

• Punjab is the fifth largest producer of potato in the country and accounts for 5 % of total production of potato in the country. The production of potato is 57% of total vegetable production in the State.

- The production of the potato in the State is 2.10 m. MT grown in an area of 0.08 m. ha. The productivity of the crop is 25.0 t/ha.
- The production of potato is concentrated in the belts of Jalandhar, Hoshiarpur, Ludhiana and Kapurthala.
- Recommended varieties of potato in the State are Kufri, Sindhuri, Kufri Chandamukhi, Kufri Jyoti, Kufri Badshah, Kufri Bahar, Kufri Ashoka, Kufri Pukhraj, Kufri Chipsona, Kufri Pushkar, Kufri Shailja, Kufri Chipsona-3, Kufri Surya, Kufri Khyati and Kufri Frysona.
- lakh MT of potato have been traded in organized markets with average price of Rs. 6.95/ Kg.

Ludhiana District:

Ludhiana is the most centrally located district which falls in the Malwa region of the State of Punjab. It lies between north Latitude 30°-34 and 31°-01 and east longitude 75°-18 and 76°-20. It is bounded on the north by River Sutlej which separates it from Jalandhar district. The River also forms its northern boundary with Hoshiarpur district. On other sides it shares common boundaries with Rupnagar district in the East, Moga district in the West, and Sangrur & Patiala districts in the South and South east respectively. The Sutlej and its tributary, the budha nallah constitute the chief Hydrographic features of the district.



Soil and climate:

District is typical representative of an Alluvial plain; it owes its origin to the aggravation work of the Sutlej River. The alluvium deposited by the river has been worked over by the wind which gave rise to a number of small dunes and sand mounds. Most of these

dunes have been leveled. The soil of the district is basically deficient in organic matter and nitrogen, particularly the sandy and loamy sand soil. Responses to phosphorus are also obtained when applied in addition to nitrogenous fertilizers.

The District can be divided into:

- 1. The flood plain of the Sutlej
- 2. The up land plain

The climate of the district is characterized by dryness except a brief spell of monsoon season in a very hot summer the succeeding period up-to the end of June is the hot season. The rainfall in the district increases from south west towards the north east. About 70% of the rainfall is received during the period July to September.

:

SI.No.	ltem	Characteristics	Value
1.		Geographical area (Sq km)	
	Α.	Net sown area	306,000 ha
	В	Area sown more than once	289,000 ha
	С	Total cropped area	595,000 ha
	D	Cropping intensity (GCA/NSA)	194.4%
	E	Net irrigated area	306
2		Administrative	
	Α.	No. of block	12
	В	No. of Panchayats	875

Other facilities for horticulture in the district:

Cold Storage Unit	45
Govt. Fruit Nursery (P.B.	02 (PAU & State Hort.
Sector)	Deptt.)
Court Datata & Vagatabla	1 of Mottowara
Govt. Potato & vegetable	1 at Mattewara
Farm	
Tissue Culture Lab. (PVT.	1
Sector)	
,	
Vegetable Export Oriented	02 (Field fresh Laddowal &
Unit (Cold Chains in PVT.	Namdhari Farm Fresh
Sector)	Bhainin Sahib)
Seed / fertilizers / pesticides	2075
depots	
Rural markets / mandis (No.)	151 (69+82)
Degulated markets	42
Regulated markets	
Sub-yards	82

NHM Acheivments:

Major fruits	Total orchard area=2250 ha Guava = 775 ha, Ber=200 ha Stone Fruits =300 ha, Kinnow = 20 ha, Lime and Lemon= 93 ha Mango= 320 ha,
Major Vegetables	Total Area=12000 ha. ,Prod: 350000 MT.
Floriculture	Total Area=85 ha.
Spices & Aromatic Crops	2200 Ha.
Aromatic Plants Distillation	20
	F0F00 0
Area under Protected cultivation of vegetables (poly house, Poli tunnel, Net House, Shade Net House,	59500 Sq. mt

The district Ludhiana Horticulture department has achieved 100 percent target by increasing the area under cultivation of fruits, vegetables, flowers, spices and fragrance plants during year 2012-13 thereby ensuring more income for the farming community besides giving a big boost to agri-diversification efforts.

Vegetable Initiative of Peri Urban Cluster:

The demand for vegetable crops is increasing day to day. Due to the challenges of increasing urban demand of vegetables and decreased area under vegetable cultivation, the sustainable supply of vegetables needs to be addressed.

Government of India has started a new scheme for vegetable cultivation in and around the one city in each state which is either capital city or any other city having population of over one million Government of India has already made the provision of Rs. 3.00 crore for this programme for the year 2011-12.

In view of this it is proposed to utilize the programme of Vegetable Initiative for Urban Clusters for the Ludhiana city and adjoining districts in order to meet out the demand of vegetables on sustainable basis from the area in and around the city.

There are seven sub-divisions i.e. Ludhiana (East), Ludhiana (West), Samrala, Khanna, Payal, Raikot and Jagraon. The district has been divided into 12 block i.e. Ludhiana (East), Ludhiana (West), Machhiwara, Samrala, Khanna, Doraha, Dehlon, Pakhowal, Raikot, Sudhar, Jagraon and Sidhwan Bet.

Precision Farming Development Centre, PAU, Ludhiana:

Precision Farming Development Centre, PAU, Ludhiana was visited on 12-1-2014. Dr. Rakesh Sharda, PI, PFDC said that PFDC, PAU, Ludhiana was established in the year 2008 and it has developed irrigation and fertigation schedules for potato, onion, green chili, spring maize and wheat. He informed that these schedules are duly approved by the Research Evaluation Committee of the PAU and are part of the package of practices.Dr.Sharda explained the different experiments and demonstrations at PFDC research cum demonstration farm. The center is conducting trials on development of drip irrigation and fertigation schedules for cabbage, garlic, pea, wheat and guava. Dr. Sharda explained the different trials being conducted on these crops. The trials of all these crops were well managed and labeled. The center has also got one 560 m² poly house in which the center is developing package of practices for rose and gerbera. The PI also explained the utility of the rain water harvesting structure in conjunction with the polyhouse. The center has demonstrated the use of solar energy as a power source for drip irrigation. There were two type of solar pumps installed at the center one was of 2hp and other was of 10 hp. There was a demonstration of the water storage tanks also. One tank was lime lined and other was brick lined. PI also explained the various training programmes being conducted by the PFDC for the farmers as well as for the officials of the state government agencies involved in the implementation of various activities of the NHM and NMMI.

Visit to PFDC, PAU, Ludhiana

Precision Farming Development Centre, PAU, Ludhiana was visited on 12-1-2014. Dr. Rakesh Sharda, PI, PFDC said that PFDC, PAU, Ludhiana was established in the year 2008 and it has developed irrigation and fertigation schedules for potato, onion, green chili, spring maize and wheat. He informed that these schedules are duly approved by the Research Evaluation Committee of the PAU and are part of the package of He explained the different experiments and demonstrations at PFDC practices. research cum demonstration farm. The center is conducting trials on development of drip irrigation and fertigation schedules for cabbage, garlic, pea, wheat and guava. Dr. Sharda explained the different trials being conducted on these crops. The trials of all these crops were well managed and labeled. The center has also got one 560 m² poly house in which the center is developing package of practices for rose and gerbera. The PI also explained the utility of the rain water harvesting structure in conjunction with the polyhouse. The center has demonstrated the use of solar energy as a power source for drip irrigation. There were two type of solar pumps installed at the center one was of 2hp and other was of 10 hp. There was a demonstration of the water storage tanks also. One tank was lime lined and other was brick lined. PI also explained the various training programmes being conducted by the PFDC for the farmers as well as for the officials of the state government agencies involved in the implementation of various activities of the NHM and NMMI.





S.N.	List of Farmer/Address	Crop/Component	Area	Remark
1	Karam Singh, Village: Seh, Block: Samrala	Capsicum, Poly house (Tobular)	2	
2	Manjinder Singh, Village: Bholapur, Block: Ludhiana-2	Tomato, Capsicum, Poly house (Tobular)	2	
3	Raminder Singh, Village: Bholapur, Block: Ludhiana-2	Tomato, Capsicum, Poly house (Tobular)	2	
4	Jaspal Singh, Village: Bhaini Sahib, Block: Ludhiana-2	Strawberry, Plastic Mulching	2	
5	Karma Singh, Village: Seh, Block: Samrala	Capsicum, Plastic Mulching	2	
6	Sh. Jagtar Singh, Village: Dvalpura, Block: Samrala		One year	
7	Karam Singh, Village: She, Block: Samrala	Pack House		
8	Kuldeep Singh, Village: Ajnoud, Block: Samrala	Bee keeping		
9	Bahadur Singh S/o Bhajan Singh Vill. Urna, Block Machhiwara	Potato (Pulchraj & Jyoti)	4.40 Ha	
10	Gurubachan Singh S/o Sadhan Singh Vill. Latto Dana Block LDH-II	Strawberry	4.00 Ha	
11	Rajiv Singh S/o Baldev Singh Vill. Behrini Sahib, Block LDH-II	Wheat	2.00 Ha	
12	Satguru Jagjit Singh S/o Satguru Pratap Singh Vill. Bhaini Sahib, Block LDH-II	Guava + Mixed Fruits	1.30 ha	
13	Hardiyal Singh S/o Dihan Singh Vill. Urna, Block Bhaini Sahib, Block LDH- II	Wheat, Pea	1.5 Ha	

Sr.	Details	Remarks
NO.		
1	Name & address of Beneficiary whose field visited.	Karam Singh, Village: Seh, Block: Samrala
2	Total land available with the beneficiary (ha).	2
3	Type of Protected cultivation activity (Hi- tech / Normal GH, Shade net, Plastic tunnel)	Poly house (Tobular)
4.	Year of establishment	2013-14
5.	Size of Structure (Sq. m)	2080
6.	Total cost	20.0 Lac
7.	Agency involved in fabrication and installation	Accuracy polyhouses, SAS Nagar, Mohali
8.	Total subsidy paid and date of payment.	972400/-, Aug. 2013
9.	Crop being grown	Capsicum
10.	Condition of Structure	Needs proper maintenance
11.	Condition of Crop	To be selected recommended varieties of crop
12.	Tie up with market	local
13.	General upkeep (Very good/ Good/ Average/ Poor)	Average/
14	Any other relevant observation by JIT.	

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Manjinder Singh, Village: Bholapur, Block: Ludhiana-2

2	Total land available with the beneficiary (ha).	2
3	Type of Protected cultivation activity (Hi- tech / Normal GH, Shade net, Plastic tunnel)	Poly house (Tabular)
4.	Year of establishment	2013-14
5.	Size of Structure (Sq. m)	4000
6.	Total cost	38.0 Lac
7.	Agency involved in fabrication and installation	Uttrakhand, Poly house, Dehradun
8.	Total subsidy paid and date of payment.	1870000/-, Sept. 2013
9.	Crop being grown	Tomato, Capsicum
10.	Condition of Structure	good
11.	Condition of Crop	Very good
12.	Tie up with market	-
13.	General upkeep (Very good/ Good/ Average/ Poor)	good
14	Any other relevant observation by JIT.	Well Maintained

Sr.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Raminder Singh, Village: Bholapur, Block: Ludhiana-2
2	Total land available with the beneficiary (ha).	2
3	Type of Protected cultivation activity (Hi- tech / Normal GH, Shade net, Plastic tunnel)	Poly house (Tabular)

4.	Year of establishment	2013-14
5.	Size of Structure (Sq. m)	4000
6.	Total cost	38.0 Lac
7.	Agency involved in fabrication and installation	Uttrakhand, Poly house, Dehradun
8.	Total subsidy paid and date of payment.	1870000/-, Sept. 2013
9.	Crop being grown	Tomato, Capsicum
10.	Condition of Structure	good
11.	Condition of Crop	good
12.	Tie up with market	-
13.	General upkeep (Very good/ Good/ Average/ Poor)	good
14	Any other relevant observation by JIT.	Adopt plant protection measures

Sr.	Details	Remarks
No.		
1	Name & address of Beneficiary whose	Jaspal Singh, Village: Bhaini
	field visited.	Sahib, Block: Ludhiana-2
2	Total land available with the beneficiary	2
	(ha).	
3	Type of Protected cultivation activity (Hi-	Plastic Mulching
	tech / Normal GH, Shade net, Plastic	
	tunnel)	
4.	Year of establishment	2013-14
5.	Size of Structure (Sq. m)	0.4 Hac
6	Total cost	10000
б.	TOTAL COST	

7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	4000/-, Sept. 2013
9.	Crop being grown	Strawberry
10.	Condition of Structure	Very good
11.	Condition of Crop	Very good
12.	Tie up with market	local
13.	General upkeep (Very good/ Good/ Average/ Poor)	Very good
14	Any other relevant observation by JIT.	Well Maintained

Sr.	Details	Remarks
No.		
1	Name & address of Beneficiary whose	Karma Singh, Village: Seh,
	field visited.	Block: Samrala
2	Total land available with the beneficiary	2
	(ha).	
3	Type of Protected cultivation activity (Hi-	Plastic Mulching
	tech / Normal GH, Shade net, Plastic	
	tunnel)	
4.	Year of establishment	2013-14
5.	Size of Structure (Sq. m)	1000
6.	Total cost	30000/-
7.	Agency involved in fabrication and	NA
	installation	
8.	Total subsidy paid and date of payment.	15000/-, Jan. 2014
9.	Crop being grown	Capsicum

10.	Condition of Structure	good
11.	Condition of Crop	good
12.	Tie up with market	-
13.	General upkeep (Very good/ Good/ Average/ Poor)	Very good
14	Any other relevant observation by JIT.	

Performa for use by Joint Inspection Team Integrated Mushroom unit for Spawn, Compost Production & Training

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose	Integrated Mushroom unit for
	unit visited	Spawn, Compost Production &
		Training
2	Year of Implementation	2012-13
3	Project Period	One year
4	Name of Implemented Agency	Sh. Jagtar Singh
5	Location of Project	Village: Dyalpura, Block: Samrala
6	Amount Released BY DAC	50 lac
7	Expenditure incurred	Rs. 25.0 lac
8	List of equipments procures	NA
		1. Back ended Subsidy
		2. Production of Compost is on
		3. production of Spawn is yet to
9	Observations	Started.
		4. Board showing NHM LOGO
		Displayed
		5. Well established & equipped
		training Rooms

Performa for use by Joint Inspection Team Pack House

Sr. No.	Details	Remarks
1	Name of the project	Pack House

2	Year of Implementation	2013-14
3	Project Period	One year
4	Name of Beneficiary	Karam Singh
5	Location of Project	Village: She, Block: Samrala
6	Total Project Cost	Rs. 3.50 lac
7	Amount Released & date	Rs. 1.50 lac
8	Expenditure incurred	Rs. 1.50 lac
9	Status	
	Capacity/ Size of unit	9 mt x 6 mt
	Commodity	-
	Condition of infrastructure	good
	Whether NHM logo displayed	-
	Whether funds disbursed to agency	Yes
	Observations	Pack house needs proper design

Performa for use by Joint Inspection Team Bee Keeping

Sr. No.	Details	Remarks
1	Name of the project	Bee Keeping
2	Year of Implementation	2013-14
3	Project Period	One year
4	Name of Beneficiary	Kuldeep Singh
5	Location of Project	Village: Ajnoud, Block: Samrala
6	Total Project Cost	Rs. 1.50 lac

7	Amount Released & date	Rs. 75000
8	Expenditure incurred	Rs. 75000
9	Status	 Bee Hives & Bee Box well maintained NHM Logo as well as Lot No engraved on Box

Sr. No.	Details	Remarks				
1	Name & address of beneficiary visited.	Bahadur Singh S/o Bhajan				
		Singh Vill. Urna, Block				
		Machhiwara				
2	Total land available with the beneficiary	4.40 Ha				
	(ha).					
3	Type of MI system availed Drip/ Sprinkler	Mini Sprinkler				
4	Crop(s) covered	Potato (Pulchraj & Jyoti)				
5.	Total area covered (ha)	2.40 ha				
6	Crop Spacing (for drip)	-				
7	Year of establishment	2011-12				
8	Name of Manufacturer/ Supplier E.P.C					
9	Total subsidy paid & date of payment	67755 on 12.12.2011				
10	Mode of payment	By cheque				
11	Status of crop	Potato crop in good condition				
12	General upkeep (Very good/ Good/	good				
	Average/ Poor)					
13.	Any other relevant observation by JIT.	Farmers are interested in				
		connetion only				

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Rajiv Singh S/o Baldev Singh Vill. Behrini Sahib, Block LDH- II
2	Total land available with the beneficiary (ha).	2.00 Ha

3	Type of MI system availed Drip/ Sprinkler	Mini Sprinkler			
4	Crop(s) covered	Wheat			
5.	Total area covered (ha)	1.00 ha			
6	Crop Spacing (for drip)	-			
7	Year of establishment	2013-14			
8	Name of Manufacturer/ Supplier	E.P.C			
9	Total subsidy paid & date of payment	36704 dt. 27.11.2013			
10	Mode of payment	By cheque			
11	Status of crop				
12	General upkeep (Very good/ Good/	good			
	Average/ Poor)				
13.	Any other relevant observation by JIT.	Farmers apply flood			
		irrigation.NO visible impact			

Sr. No.	Details	Remarks			
1	Name & address of beneficiary visited.	Satguru Jagjit Singh S/o			
		Satguru Pratap Singh Vill.			
		Bhaini Sahib, Block LDH-II			
2	Total land available with the beneficiary	-			
	(ha).				
3	Type of MI system availed Drip/ Sprinkler	Drip Irrigation			
4	Crop(s) covered	Guava + Mixed Fruits			
5.	Total area covered (ha)	1.30 ha			
6	Crop Spacing (for drip)	5m x 5m			
7	Year of establishment	2011-12			
8	Name of Manufacturer/ Supplier	Harvel Agra			
9	Total subsidy paid & date of payment	25452 dt. 30.3.2012			
10	Mode of payment	By cheque			
11	Status of crop	average			
12	General upkeep (Very good/ Good/	Average/			
	Average// Poor)				
13.	Any other relevant observation by JIT.				

Performa for use by Joint Inspection Team	
Micro Irrigation	

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Hardiyal Singh S/o Dihan
		Singh Vill. Urna, Block Bhaini
		Sahib, Block LDH-II
2	Total land available with the beneficiary	1.5 Ha
	(ha).	
3	Type of MI system availed Drip/ Sprinkler	Mini Sprinkler
4	Crop(s) covered	Wheat, Pea
5.	Total area covered (ha)	1.00 ha
6	Crop Spacing (for drip)	-
7	Year of establishment	2013-14
8	Name of Manufacturer/ Supplier	E.P.C
9	Total subsidy paid & date of payment	36676 dt. 27.11.2013
10	Mode of payment	By cheque
11	Status of crop	
12	General upkeep (Very good/ Good/	
	Average/ Poor)	
13.	Any other relevant observation by JIT.	

Ludhiana District Photo:



Honey bee boxes in farmers field



Mulching in straw berry field





Well pepper in poly house at farmers field

Guava crop with drip irrigation



Tomato production under poly house



Honeybee processing unit

Jalandhar District:

Jalandhar District is covered the 3,401 sq. km area and according to the 2011 census district has a population of 2, 1.81Lac. Jalandhar district is surrounded by Ludhiana district in East side, Kapurthala in West side, Hosiharpur in North side and Ferozepur in South side. It lies 30 deg 33' North longitude and 71 deg 31' east longitude. The Jalandhar District consist of 5 tehsils/subdivisions viz. Jalandhar-I, Jalandhar II, Nakodar, Phillaur and Shahkot. Besides, there are 5 sub-tehsils, viz. Adampur, Bhogpur, Kartarpur, Goryan and Nurmahal. The district is divided into 10 development blocks, viz, Jalandhar East, Jalandhar West, Bhogpur, Adampur, Nakodar, Shahkot, Phillaur, Nurmahal, Lohian and Rurka Kalan.



Climate and Soil:

The climate of this district is on the whole dry except during the brief south-west monsoon season. The average annual rainfall in the district is 703.0 mm. The rainfall in the district in general increases from the south-west towards the north-east and varies from 551.3 mm at Nakodar to 892.3 mm at Adampur (Aera-obsy). About 70 per cent of the annual normal rainfall in the district is received during the period July to September, on an average, there are 36 rainy days (i.e. days with rainfall of 2.5 mm or more) in a year in the district. Winds are generally light in the district. In the south-west monsoon season, winds from direction, between north-east and south-east, are common but on many days in the afternoons westerly to north-westerly winds predominate, except in the latter half of summer, when easterlies and south easterlies blow on some days.

Soil types: Punjab and Rohilkhand plains, hot dry, sub humid eco-sub region

	Soil type	Characteristics	Area in ha
S. No			
1.	Sandy	Low OC, Med P & Med to	
	loam	High K	
2.	Loam	do	

Horticulture Development in Jalandhar District:

District Jalandhar falls in Centre region of Punjab, having subtropical climate with average rainfall and loamy sand soils. Total land of the district in 2.66 lac hectares out of which 2.41 lac hectare land is cultivated as well as irrigated. The area under vegetables particularly Potato, Chillies, Vine crops, Root crops, Peas and Tomato is increasing at faster rate. The district is also known as Potato Seed supplier at National and International levels as 60% of total area is grown for seed purposes and rest 40% for table purposes. There is also great scope for area expansion under Flowers and Spices.

From last many years, It was felt that there was a great need to grow Vegetables & Flowers under Protected conditions, reduce Post Harvest losses, encourage Horticulture Mechanization and Organic cultivation of crops. With the advent of National Horticulture Mission in district Jalandhar in year 2005-06, these issues were taken on priority basis and financial assistance is being provided to the farmers as per norms fixed under NHM.

Protected Cultivation of Vegetables & Flowers:-

Horticulture has moved from its rural confinement to commercial activity. This changing scenario has proved opportunity for adoption of improved production system and to manage the optimum use of limited resources properly. The situation forces in the farmers to adopt Protected Cultivation of Vegetables & Flowers in the district to co-op with the rising demand of high quality produce. The main components covered under Protected Cultivation are Hi-tech & Naturally ventilated Poly Houses, Plastic Tunnels, Plastic Mulching and Shade Net House. As the cost factor in raising these structures is very high, State Horticulture Mission took the initiative to provide 50% financial assistance to them. The assistance available (as per norms) to Hi-tech Poly House amounts to `732.50 per Sq.mtr., Naturally Ventilated Poly Houses:- `462.50 per Sq.mtr. Plastic Tunnels:- `15/- per Sq.mtr. and for Shade Net House:- `300/- per Sq.mtr.. During year 2012-13 and year 2013-14 (upto 13th Januarys,2014), more than 5,00,000 Sq.mtr. area has been covered under Protected Cultivation of Horticultural crops and financial assistance amounting `1,04,00,000/- has been disbursed to farmers. The special

emphasis has been given to the cultivation of Parthenocarpic Cucumber, Coloured Capsicum, Gerbera and Carnation etc.

Now farmers have substantially increased their income by adopting protected cultivation of vegetables in off-season as the production during their normal season do not fetch good returns due to large availability of these vegetables in the markets. Off-season cultivation of cucurbits under low plastic tunnels has also become profitable business in the state. Moreover Insect proof Net houses have currently been used for virus free cultivation of tomato, chilli, sweet pepper and green leafy vegetables mainly during the rainy season.

Post Harvest Management of Vegetables & Flowers:-

All these crops have high water content, are perishable in nature and all damage during handling and rots thereafter. For these very reasons, the Post Harvest losses in these crops are estimated to 35% of the total production. It is also fact that district Jalandhar is away from major domestic consumption centres and metro markets, requires extra care and infrastructural facilities for ushering into commercial Horticulture and to reduce Post Harvest losses during handling, packaging, storage and marketing etc. To co-op with the situation, SHM has taken several steps by providing financial and technical assistance for installation of Cold Storage Units, Pack Houses, Minimal Processing Units. Moreover, SHM has also taken initiative to provide financial assistance to establish proper marketing infrastructure for Horticultural produce with special emphasis on wholesale and rural markets in addition to market led extension activities for fresh products. Consequently, a well established chain of Cold Storage Units and Pack Houses can be seen in the district.

During the year 2012-13 and year 2013-14(upto 13th January, 2014), 24 Cold Storage Units with Fin-Coil System of cooling have been given 40% financial assistance amounting to ` 15,32,62,698/- and 38 Pack House Units at farmer fields have been given 50% financial assistance amounting to ` 57,00,000/-. In addition, during these years, 2 Minimal Processing Units for Turmeric & Mentha Crops have been given financial assistance amounting ` 19,20,000/-.

Horticulture Mechanization:

As there is an acute shortage of labour required for the cultivation and Post Harvest handling of Horticultural crops, there was a need to opt for Horticulture Mechanization by providing 50% financial assistance on purchasing of power operated plant protection equipments, Power Weeders, Potato Diggers, Rotary Tillers and Brush Cutters. During year 2012-13 and year 2013-14 (upto 13th January, 2014), financial assistance mounting to ` 39,45,437/- has been provided to 346 farmer beneficiaries. As a result, the cost of labour has been reduced in addition to quality improvement of Horticulture produce in the market.

Establishment of Marketing Infrastructure of Horticulture Produce:-

From the last many years, most of the potato growers were stressing to provide financial assistance to create the Functional Infrastructure for Collection, Sorting/Grading, Packing Units to improve the quality and marketability of potato seed. To do so, during year 2012-13, 3 Units have been established with the financial assistance of ` 18,00,000/- from NHM. It is worthwhile to mention that 2 more units have also been sanctioned in this current financial year.

Vegetable Seed Production in Public Sector:-

To co-op the increasing demand of high quality certified potato & vegetable seed in the region, the vegetable seed production program for potato & other vegetable seeds have been taken up at Govt. Potato & Vegetable Farms, Malsian, Dhogri & Kartarpur. During the year 2012-13 and year 2013-14 (upto 13th January, 2014), the sum of `42,91,366/-has been utilized for 102 Hectares on these Farms.

Centre of Excellence for Vegetables, Kartarpur (Indo-Israel Project):-

Under Indo-Israel bilateral agreement, Centre of Excellence for Vegetables at Kartarpur has been established with the following objectives:-

- To standardize & demonstrate sustainable horticultural crop production technologies making such produce globally competitive.
- To increase profitability of farmers per unit area & time.
- To generate productive employment opportunities.

The Project has been inaugurated on 24th December, 2013 by Hon'ble Chief Minister of Punjab & his Excellency Ambassador of Israel and the work has been started as per fixed targets.

Consequently, It is crystal clear that NHM in district Jalandhar has brought big revolution in regard to yield and quality improvement at every level in Horticultural crops and days are coming when our district will be recognized as progressive Horticultural district.

Center of Excellence for Vegetables at Kartarpur:

At present total area under vegetable crops is 1.84 lac ha with a production of 37.82 lac ton. The annual productivity of vegetables in the state is 20.55 ton per hac. The main vegetable grown in the State is potato occupying an area of 85254 hac with 56.37% the total vegetable production.

With increasing population and raising health consciousness of people leading to increased vegetable consumption, there is a growing demand supply gap in the market. Also with improved latest technologies there is big scope in improvement of productivity and quality of vegetables on one hand and increased profitability of farmers on the other hand, which can make even the agro processing industry in Punjab more viable. In this background to standardize and demonstrate, the latest technologies in vegetables sector in a sustainable manner according to Punjab agro-climatic conditions, a Center of Excellence is being proposed at Jalandhar which is at the center of vegetable production region. The said center is being proposed for both the models i.e. vegetable cultivation in open field and under protected conditions.

Vegetable Cultivation in open Field:

Vegetables in Punjab are grown in open fields with exception of new interventions under protected conditions on a very small area. Amongst open cultivated vegetables Potato, Tomato & Onion crops cover a major area i.e. 100494 hac which is 54.35% of the total area under vegetable crops in Punjab. These three crops have been selected because there is a big scope for improvement with respect to their productivity, quality and the profitability of the farmers. Also their produce is processable for which the faculties are available in Punjab thus it will help make the agro processing industry more viable, while at the same time transferring a part of the added value to the producer market.

Area (hac)	85254

Production (MT) 2132307

Existing Productivity (MT/ Hac) 24.98 and Potential 31

Activities of Centre of excellence:



PROGRESS REPORT UNDER NVI SCHEME (RKVY), DISTT. JALANDHAR

Year	Total	Area under Open		Area under Hybrid			Total			
	Expenditure	Pollinated		Vegetables						
		v	egetabl	es						
		Acre	Kanal	Marla	Acre	Kanal	Marla	Acre	Kanal	Marla
2012-13	61,94,250	401	1	0	188	2	0	589	3	0
	43,31,250	305	3	0	120	4	0	425	7	0
	29,49,750	286	1	0	28	4	0	314	5	0
2013-14	44,88,750	346	4	0	101	4	0	448	0	0
	80,88,750	776	4	0	81	4	0	858	0	0
Total:-	260,52,750	2115	5	0	520	2	0	2635	7	0

2013-14	6,00,000	4 Pack Houses are covered @ 1,50,000/- per unit.
Grand	266,52,750	
Total:		

Farmers List

S.N.	List of Farmer/Address	Crop/Component	Area	Remark
1	Sh. Mohinder singh s/o Karanil singh vill. Ali kheila block Jalandhar west	Vegetable Potato	1.00	
2	Sh. singh s/o Resham singh vill. Nusi	Vegetable Potato	1.05	
3	Sh. Gurdev singh s/o Jagat singh vill. Malliwal block Lohian	Vegetable Potato	1.00	
4	Ajit singh s/o Kartar singh vill. Mehmuwal Yousefpur block Lohian	Vegetable Potato	1.00	
5	Sh. Charanjit Singh S/o Pritam Singh, Vill. Jandiala, Block Rurka Klan	Tomato, Capsicum, Coriander, Barokli	2 Ace	
6	Sh. Kulwaran Singh Aturil S/o Jaswant Singh vill. Bhikha Mangal, Kartarpur Dist. Jalandhar	Hi-Tech (Fan & Pkd system), flower cultivation		
7	Sh. Anil Bhandhari Kishangarh, Road, Vill Ambgarh, Kartarpur Distt, Jal	Potato		
8	Sh. Chanchal Singh S/o Rattan Singh, S. Gururrinder Singh S/o	Potato, Vegetables and Fruits		

	Chanchal Singh, Vill. Beas Pind Distt. Jalandhar			
9	Sh. Rahul Gupta S/o Verinder Kumar Gupta	Normal green house	3 Acre	
10	Sh. Dalliver Singh Sh. Daljit Singh, Vill. Loharan Pratapura, Dist. Jalandhar	Potato		
11	Sh. Mukhatar Singh Dhaiya, Vill Billi Chaharam	Fruits and Vegetables		

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Sh. Mohinder singh s/o Karanil singh
	visited	vill. Ali kheila block Jalandhar west
2	Total land available with the	1.00
	Beneficiary (ha.)	
3	Type of M.I. System availed	Mini Sprinkler
	Drip/ sprinkler	
4	Crop(s) Covered	Vegetable Potato
5	Total Area Covered (ha)	1.00
6	Crop Spacing (for drip)	10m x 10m
7	Year of Establishment	2012-13
8	Name of manufacturer Supplier	Balson polyplast Pvt. Ltd. Jaipur Darish Trader
9	Total subsidy paid & Date of	47944-00
	payment	29.06.2012
10	Mode of payment	By cheque
11	Status of crop	Vegetable

12	General upkeep (very	Very good
	good/good/average/ poor)	
13	Any other relevant observation	Nil
	by JIT	

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Sh. singh s/o Resham singh vill. Nusi
	visited	
2	Total land available with the	1.05
	Beneficiary (ha.)	
3	Type of M.I. System availed	Mini Sprinkler
	Drip/ sprinkler	
4	Crop(s) Covered	Vegetable Potato
5	Total Area Covered (ha)	1.05
6	Crop Spacing (for drip)	10m x 10m
7	Year of Establishment	2012-13
8	Name of manufacturer Supplier	Jain Irrigation system Itd. Dasmesh
		Irrigation & Farm solution
9	Total subsidy paid & Date of	57108-00
	payment	
10	Mode of payment	By cheque
11	Status of crop	Vegetable
12	General upkeep (very	good
	good/good/average/ poor)	
13	Any other relevant observation	Nil
	by JIT	

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Sh. Gurdev singh s/o Jagat singh vill.
	visited	Malliwal block Lohian
2	Total land available with the	1.00
	Beneficiary (ha.)	
3	Type of M.I. System availed	Mini Sprinkler
	Drip/ sprinkler	
4	Crop(s) Covered	Vegetable Potato
5	Total Area Covered (ha)	1.00
6	Crop Spacing (for drip)	10m x 10m
7	Year of Establishment	2012-13
8	Name of manufacturer Supplier	Nimbus Pipes Ltd.
		Om Enterprises Jalandhar
9	Total subsidy paid & Date of	54545-00
	payment	
10	Mode of payment	By cheque
11	Status of crop	Vegetable
12	General upkeep (very	Very good
	good/good/average/ poor)	
13	Any other relevant observation	Nil
	by JIT	

Sr.No.	Detail	Remarks		
1	Name & Address of Beneficiary	Ajit singh s/o Kartar singh vill.		
	visited	Mehmuwal Yousefpur block Lohian		
2	Total land available with the	1.00		
	Beneficiary (ha.)			
3	Type of M.I. System availed	Mini Sprinkler		

	Drip/ sprinkler	
4	Crop(s) Covered	Vegetable Potato
5	Total Area Covered (ha)	1.00
6	Crop Spacing (for drip)	10m x 10m
7	Year of Establishment	2012-13
8	Name of manufacturer Supplier	EPC Industries Ltd, Japneat Irrigation
		System, Jalandhar
9	Total subsidy paid & Date of	54545-00
	payment	
10	Mode of payment	Through cheque
11	Status of crop	Vegetable
12	General upkeep (very	good
	good/good/average/ poor)	
13	Any other relevant observation	Nil
	by JIT	

Sr.	Details	Remarks
No.		
1	Name & address of Beneficiary whose	Sh. Charanjit Singh S/o Pritam
	field visited.	Singh, Vill. Jandiala, Block
		Rurka Klan
2	Total land available with the beneficiary	2 Acre
	(ha).	
3	Type of Protected cultivation activity (Hi-	Normal Green House
	tech / Normal GH, Shade net, Plastic	(Naturally Ventilated)
	tunnel)	
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	1008 sq mt.
6.	Total cost	Rs. 9,42,480
7.	Agency involved in fabrication and	M/S Srijagat Health Vare Pvt.

	installation	Ltd. (Regd)
8.	Total subsidy paid and date of payment.	4,67,500/-, 19.7.2012
9.	Crop being grown	Capsicum, Tomato, Coriander, Brirolli
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Local Mkt.
13.	General upkeep (Very good/ Good/ Average/ Poor)	Very good
14	Any other relevant observation by JIT.	

Sr.	Details	Remarks
No.		
1	Name & address of Beneficiary whose	Sh. Kulwaran Singh Aturil S/o
	field visited.	Jaswant Singh vill. Bhikha
		Mangal, Kartarpur Dist.
		Jalandhar
2	Total land available with the beneficiary	
	(ha).	
3	Type of Protected cultivation activity (Hi-	Hi-Tech
	tech / Normal GH, Shade net, Plastic	
	tunnel)	(Fan & Pkd system)
4	Year of establishment	2011-12
т.		2011 12
5.	Size of Structure (Sq. m)	2320 sq mt.
6.	Total cost	Rs. 33.98.800
7.	Agency involved in fabrication and	M/S Phwr Agro tech for green
	installation	house irrigation
8.	Total subsidy paid and date of payment.	Rs. 16,99,400/-, 22.11.2011

9.	Crop being grown	Flowers cultivation
10.	Condition of Structure	Very Good
11.	Condition of Crop	Very Good
12.	Tie up with market	Local Mkt.
13.	General upkeep (Very good/ Good/ Average/ Poor)	Very good
14	Any other relevant observation by JIT.	

Performa for use by Joint Inspection Team Post Harvest Management Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Sr. No. Details Remains		
1	Name of the project	Sh. Shiv Shankar Cold Storage	
		Vill. Ambgarh, Kartarpur, Distt. Jal	
2	Year of Implementation	2012-13	
3	Project Period	2012-13	
4	Name of Beneficiary	Sh. Anil Bhandhari	
5	Location of Project	Kishangarh, Road, Vill Ambgarh,	
		Kartarpur, Distt. Jal	
6	Total Project Cost	Rs. 3,38,50,000/-	
7	Amount Released & date	54,00,000/- 4.09.12	
		53,89,992/- 26.3.13	
8	Expenditure incurred	Rs. 3,38,50,000/-	
9	Status		
	Capacity of unit	4500 MT	
	Commodity	Potato	
	Equipments purchased	Machinery Relevant to C.S UNIT	
		& fim Coil system	

ń		
	Condition of infrastructure	Very good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes

Performa for use by Joint Inspection Team Post Harvest Management Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Details	Remarks
1	Name of the project	Sh. Shiv Shankar Cold Storage
		Vill. Ambgarh, Kartarpur, Distt. Jal
2	Year of Implementation	2012-13
3	Project Period	
4	Name of Beneficiary	Sh. Chanchal Singh S/o Rattan
		Chanchal Singh
5	Location of Project	Vill Beas Pind, Distt. Jal
6	Total Project Cost	Rs. 1,35,00,000/-
7	Amount Released & date	17,00,000/- 31.3.13
		17,27,488/- 3.9.13
8	Expenditure incurred	Rs. 1,35,00,000/-
9	Status	
	Capacity of unit	1453 MT
	Commodity	Potato, Vegetables & Fruits
	Equipments purchased	Fim Coil system related
		machinery
	Condition of infrastructure	good
	Whether NHM logo displayed	Yes

Whether funds disbursed to	Yes	
agency		

Sr.	Details	Remarks
No.		
1	Name & address of Beneficiary whose	Sh. Rahul Gupta S/o Verinder
	field visited.	Kumar Gupta
2	Total land available with the beneficiary	3 Acre
	(114).	
3	Type of Protected cultivation activity (Hi-	Normal green house
	tech / Normal GH, Shade net, Plastic	
	tunnel)	
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	3887 sq mt.
6.	Total cost	Rs. 37,79,795
7.	Agency involved in fabrication and installation	M/S Vise Boon Technologies
8.	Total subsidy paid and date of payment.	Rs. 18,17,172/- , 15.1.13
9.	Crop being grown	Flowers (Gerbera)
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Local Mkt.
13.	General upkeep (Very good/ Good/	good
	Average/ Poor)	
14	Any other relevant observation by JIT.	

Performa for use by Joint Inspection Team Post Harvest Management Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Details	Remarks		
1	Name of the project	Sh. Shiv Shankar Cold Storage		
		Vill. Ambgarh, Kartarpur, Distt. Jal		
2	Year of Implementation	2012-13		
3	Project Period	2012-13		
4	Name of Beneficiary	Sh. Dalliver Singh Sh. Daljit Singh		
5	Location of Project	Vill Loharan Pratappura, Dist		
		Jalandhar		
6	Total Project Cost	Rs. 2,72,50,000/-		
7	Amount Released & date	41,40,000/- 04.9.12		
		41,06,488/- 3.9.13		
8	Expenditure incurred	Rs. 2,72,50,000/-		
9	Status			
	Capacity of unit	3450 MT		
	Commodity	Potato,		
	Equipments purchased	Fim Coil system related		
		machinery		
	Condition of infrastructure	good		
	Whether NHM logo displayed	Yes displayed		
	Whether funds disbursed to	Yes		
	agency			

Performa for use by Joint Inspection Team Post Harvest Management

Pack House/Co	Id Storage/Ref	Van/ Primary	processing/	Functional	Infrastructure
		· • • · · · · · · · · · · · · · · · · ·	p		

Sr. No.	Details	Remarks
1	Name of the project	Sh. Dahiya Agricultural Functional Infrastructure, Vill. Billi Chaharam
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Sh. Mukhatar Singh Dhaiya
5	Location of Project	Vill Billi Chaharam
6	Total Project Cost	Rs. 2,00,00,000/-
7	Amount Released & date	60,00,000/- 04.9.12
8	Expenditure incurred	Rs. 2,00,00,000/-
9	Status	
	Capacity of unit	Potato, grader, infection clinic 30 x 45
	Commodity	Sorting greeding, pakcing of Agricultural produce (fruits and Vegetable)
	Equipments purchased	Potato Grader/ severing machines purchased
	Condition of infrastructure	good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes

Jalandhar District Photographs



Capsicum in farmers field in poly house



gerbera cultivation under poly house



cold storage for seed potato with grader



Potato grader supported from RKVY



Cold Storage for Potato



Tomato production in open field



Sprinklers in potato field



Pack house in farmer's field



Potato crop with drip irrigation

Hoshiarpur District

Hoshiarpur district is located in the north-east part of the State. It falls in the Jalandhar Revenue Division and is situated in the Bist Doab, Doaba region of the State. The district is submountainous and stretches of river Beas in the north-west. It lies between north latitude 30 ⁰-9 and 32 ⁰-05 and east longitude 75⁰-32 and 76⁰ -12'. It shares common boundaries with Kangra and Una districts of Himachal Pardesh in the north east, Jalandhar and Kapurthala districts (interspersed) in south-west and Gurdaspur district in the north-west. At present, it has an area of 3i98.2 Sq. Kms. and a population, as per 2011 is 15.79 Lac.

Potato grader supported from NHM



Climate and Soil:

The district has mild climate compared to other districts of the State. This is due to the abundance of hilly terrain on the one hand and sizeable forest covers thereon, on the other. Moreover, chains of check dams constructed recently on the choes under "Kandi Watershed Development Project" have appreciably enhanced water surface area in the district. The total average rain falls in district is 1125 mm .Broadly speaking 75 percent of the rainfall is experienced in the period July to September, Whereas 15 Percent rainfall is experienced in the winter months of January and February are under the influence of western disturbances in the Persian Gulf.

The soils of the district in general, are slightly acidic to slightly alkaline in reaction. The pH varies from 6.9 to 8.4 both at the surface and in the control section. The electrical conductivity is 0.04 to 1.10 dSm-1 and thus these soils are suitable for growing all types of crops depending upon the soil texture. The organic carbon of the soils ranges from low to high both at surface and subsoil i.e. 0.01 to 0.68 percent. The low values at the surface are for coarse textured soils an high for the medium and fine textured soils. The calcium carbonate is variable depending upon the soils it may vary from traces to about 4 percent. The surface soils, in general, are low in available nitrogen, medium to high in available phosphorus and low to medium in available potassium. Some of the soils have very high available phosphorus owing to regular application of phosphatic

fertilizers and immobile nature of phosphorus irons in soils. However, data on the area under various soil type in the district is not available.

Horticulture:

Major fruits grown in the district are Kinnow, Mango, Peach, litchi, pear, Guava etc. and among the vegetables Potato has the major share followed by Peas, cauliflower, tomato, cabbage, brinjal etc. Under floriculture marigold annual chrysanthemum and goadieli are grown.

Land utilization pattern:

Geographical area	339267 ha.
Net area sown	205000 ha.
Area under fruit plantation	7300 ha.
Fellow land	1000 ha.
Land not available for cultivation	133267 ha.

Item	Area in (000) Hects.		
1. Total geographical area	339		
2. Forests	109		
3. Barren land	1		
4. Land use other than cultivation	24		
5. Permanent pastures	1		
6. Present waste land	1		
7. Area under cultivation	203		
8. Irrigated area	161700 ha (81%)		
9. Un irrigated area	49		
10. Area sown more than once	145		
11. Gross cropped area	348		
12.Cropping intensity 13 No. of Blocks 14 Net sown area 15 Cropping Intensity	171% 10 199000ha. 222.6%		

Agriculture Problems of District;

- Poor retention of water & nutrients in coarse textured soil
- · Severe soil erosion due to undulated topography
- · Low inherent nutrient status in surface/sub-surface soils
- Deep underground water table
- Wild animals cause considerable damage in kandi area
- · Lack of irrigation facilities in sub-montaineous area
- Small land holdings 47% farmers are small & marginal (<2 ha), Only 3% farmers are

large (> 10 ha).

Potentials of the District:

Suitable for fruit cultivation kinnow , guava, litchi, mango, peach amla, galgal, ber (rainfed) Early cultivation of vegetables Cultivation of forest trees (Poplar, Euclyptus) & medicinal plants (khair etc.) Ample scope for bee-keeping

MAJOR CROPPING PATTERNS



Centre of Excellence For Fruits (Citrus) at Khancura (Hoshiarpur) Objectives of the project

- Production of Vigorous, pest and disease free citrus plants under insect net house.
- To enhance productivity and quality production.
- To increase profitability per unit area.
- To generate more employment.
- To supply Quality raw material to processing industry for value addition.
- To increase Contribution to GDP.

Activities

- Production of pest and disease free citrus plants in Hi-Tech nursery.
- Quality production at high density plantation and normal spacing on ridges and flat.
- Demonstration of different citrus cultivars different rootsocks.
- Demonstration of Automatic micro irrigation system for nursery and field segment.
- Demonstration of Kinnow with different doses of fertilizers through fertigation.
- Demonstration of weed management techniques.
- Demonstration on use of plasticulture.
- Demonstration of new farm Machinery
- Demonstration of Post harvest Management Techniques.
- Good Agriculture Practices.

Farmers List

S.N.	List of Farmer/Address	Crop/Component	Area	Remark
1	Ramanjit singh s/o Baljit singh V-Kantian	Kinnow	4.45 ha.	
2	Narinderjit Kaur w/o Tirath Singh V-Rorh Road	Kinnow and Vegetables	6.55	
3	Sh. Ravi Kumar S/o Gian Chand V- Janauri	Vegetables	1 ha	
4	Gurdial Singh S/0 Harnam Singh V- Janauri	kinnow	10 hac	
5	Harish Jain S/o Sh. Om Parkash Vill. BADHO WAL, Hoshiarpur-I	Normal Green House, Gerbera	8 hac	
6	Assem Jain S/o Harish Jain	Normal Green House Gerbera	0.4 hac	
7	Angraij Singh S/o Sh. Ram Saroop, Vill. Mukhilana, Block Hoshiarpur-II, Tech & Distt. Hoshiarpur	Pack House for vegetable		
8	Karam Chand S/o Banta Ram Vill. Phadma, Block Hoshiarpur	Carrot washing machine, carrot		
9	Tassen Singh S/o Sh. Bhula Singh, Vill. Phadma, Block Hoshiarpur	Carrot washing machine(Mechanization), carrot		
10	Sawan Singh S/o S. Natha Singh, Vill Mona Kalon, Block Hoshiarpur-II	Carrot washing machine, carrot		
11	Farmer Produce Promotion Society (FAPRO), Vill Kangmai/ Ghugial,	Turmeric Processing Machine, Turmeric		

	Block-Bhrfa (Circle- Hariona)			
12	Village. Daulat Ram	Modern Nursery,		
	Gillon. Block	Manjit Fruit Nursery.		
	Bheenga, Distt-	Citrus, Kinnow, Bara		
	Hoshiarpur	masi, Lemon, sweet		
		organge etc.		
13	P.A.A Sh. Gurdeep	Citrus, Kinnow	3 hac	
	Singh S/o Sh. Kehar			
	Suity, Village			
	Darapur, Block-			
	Bhuga			
14	Sh. Ravinder singh	Mechanization		
	S/o Dorbara Singh,	Citrus. Kinnow		
_				
15	Sh. Jaswindu Pal	Mechanization		
	Singh S/o Sh. Mohinder Seti Vill	Citrus, Kinnow		
	Dra Pur, Block			

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Ramanjit singh s/o Baljit singh V-
	visited	Kantian
2	Total land available with the	
	Beneficiary (ha.)	
3	Type of M.I. System availed	In line Drip
	Drip/ sprinkler	
4	Crop(s) Covered	Kinnow
5	Total Area Covered (ha)	4.45 (ha)
6	Crop Spacing (for drip)	2.5 x 6m
7	Year of Establishment	2007
8	Name of manufacturer Supplier	R.s Product Pvt. Ltd
9	Total subsidy paid & Date of	210965
	payment	

10	Mode of payment	By cheque
11	Status of crop	
12	General upkeep (very good/good/average/ poor)	
13	Any other relevant observation by JIT	

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Narinderjit Kaur w/o Tirath Singh V-
	visited	Rorh Road
2	Total land available with the	6.55
	Beneficiary (ha.)	
3	Type of M.I. System availed	In line Drip
	Drip/ sprinkler	
4	Crop(s) Covered	Kinnow and Vegetables
5	Total Area Covered (ha)	6.65 (ha)
6	Crop Spacing (for drip)	1.8x 0.6
7	Year of Establishment	2013
8	Name of manufacturer Supplier	Netafem
9	Total subsidy paid & Date of	337648
	payment	
10	Mode of payment	By cheque
11	Status of crop	
12	General upkeep (very	
	good/good/average/ poor)	
13	Any other relevant observation	
	by JIT	

Performa for use by Joint Inspection Team
Micro Irrigation

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Sh. Ravi Kumar S/o Gian Chand V-
	visited	Janauri
2	Total land available with the	-
	Beneficiary (ha.)	
3	Type of M.I. System availed	Mini Sprinkler
	Drip/ sprinkler	
4	Crop(s) Covered	Vegetables
5	Total Area Covered (ha)	1 ha
6	Crop Spacing (for drip)	10x 10
7	Year of Establishment	2011
8	Name of manufacturer Supplier	Harvel Agua India Pvt. Ltd
9	Total subsidy paid & Date of	57720/-
	payment	
10	Mode of payment	By cheque
11	Status of crop	
12	General upkeep (very	
	good/good/average/ poor)	
13	Any other relevant observation	
	by JIT	

Sr.No.	Detail	Remarks
1	Name & Address of Beneficiary	Gurdial Singh S/0 Harnam Singh V-
	visited	Janauri
2	Total land available with the	10 hac
	Beneficiary (ha.)	
3	Type of M.I. System availed	Drip System
	Drip/ sprinkler	

4	Crop(s) Covered	Kinnow
5	Total Area Covered (ha)	3 ha
6	Crop Spacing (for drip)	-
7	Year of Establishment	2006-07
8	Name of manufacturer Supplier	Ajay Industry
9	Total subsidy paid & Date of	132570
	payment	
10	Mode of payment	By cheque
11	Status of crop	
12	General upkeep (very	
	good/good/average/ poor)	
13	Any other relevant observation	
	by JIT	

Detalls	Remarks
Name & address of Beneficiary whose	Harish Jain S/o Sh. Om
field visited.	Parkash Vill. BADHO WAL,
	Hoshiarpur-I
Total land available with the beneficiary	8 hac
(ha).	
Type of Protected cultivation activity (Hi-	Normal Green House
tech / Normal GH, Shade net, Plastic	
tunnel)	
Year of establishment	2012-13
Size of Structure (Sq. m)	4000 sa mt
Total cost	37.40 lac
Agency involved in fabrication and	Shri Jagat
installation	
	Name & address of Beneficiary whose field visited. Total land available with the beneficiary (ha). Type of Protected cultivation activity (Hi- tech / Normal GH, Shade net, Plastic tunnel) Year of establishment Size of Structure (Sq. m) Total cost Agency involved in fabrication and installation

8.	Total subsidy paid and date of payment.	18.70 lac
9.	Crop being grown	Gerbera
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Self Marketing
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	Gapsin Planting

No. Image: No. 1 Name & address of Beneficiary whose Assem Jain S/o Harish C	lain
Name & address of Beneficiary whose Assem Jain S/o Harish J	lain
field visited.	
2 Total land available with the beneficiary 0.4 hac	
(ha).	
3 Type of Protected cultivation activity (Hi- Normal Green House	
tech / Normal GH, Shade net, Plastic	
4.Year of establishment2012-13	
5. Size of Structure (Sg. m) 4000 sg mt.	
6. Total cost 37.40 lac	
7. Agency involved in fabrication and Shri Jagat	
installation	
8. Total subsidy paid and date of payment. 18.70 lac	
9. Crop being grown Gerbera	
10. Condition of Structure Good	
11. Condition of Crop Good	

12.	Tie up with market	Self Marketing
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	Gapsin Planting

Performa for use by Joint Inspection Team Post Harvest Management Pack House/Cold Storage/Ref Van/ Primary processing

Sr.	Details	Remarks
No.		
1	Name of the project	Pack House for vegetable
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Angraij Singh S/o Sh. Ram Saroop
5	Location of Project	Vill Mukhliana, Block Hoshiarpur-II, Tech &
		Distt Hoshiarpur
6	Total Project Cost	Rs. 3.43 lac
7	Amount Released & date	Rs. 1.50 lac
8	Expenditure incurred	Rs. 3.45 lac
9	Status	Working
	Capacity of unit	6 mt x 9 mt
	Commodity	Vegetables eg. cauliflower, cabbage, peas etc.
	Equipments purchased	Locally
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to	Yes
	agency	

Performa for use by Joint Inspection Team Post Harvest Management

Sr.	Details	Remarks
No.		
1	Name of the project	Carrot washing machine
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Karam Chand S/o Banta Ram

Pack House/Cold Storage/Ref Van/ Primary processing

5	Location of Project	Vill Phadma, Block Hoshiarpur
6	Total Project Cost	Rs. 62300
7	Amount Released & date	Rs. 30,000
8	Expenditure incurred	Rs. 62600
9	Status	Working
	Capacity of unit	5-6 quintal washing in 20 minutes
	Commodity	Carrot
	Equipments purchased	Yes
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to	Yes
	agency	

Performa for use by Joint Inspection Team Post Harvest Management Pack House/Cold Storage/Ref Van/ Primary processing

0	Bataila	Demonitor
Sr.	Details	Remarks
No.		
1	Name of the project	Carrot washing machine
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Kabal Singh S/o Sh. Chanen Singh
5	Location of Project	Vill Phadma, Block Hoshiarpur
6	Total Project Cost	Rs. 62000
7	Amount Released & date	Rs. 30,000
8	Expenditure incurred	Rs. 62700
9	Status	Working
	Capacity of unit	5-6 quintal washing in 20 minutes
	Commodity	Carrot
	Equipments purchased	Yes
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to	Yes
	agency	

Performa for use by Joint Inspection Team Post Harvest Management

Sr.	Details	Remarks
No.		
1	Name of the project	Carrot washing machine(Mechanization)
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Tassen Singh S/o Sh. Bhula Singh
5	Location of Project	Vill Phadma, Block Hoshiarpur
6	Total Project Cost	Rs. 131000
7	Amount Released & date	Rs. 60,000
8	Expenditure incurred	Rs. 131500
9	Status	Working
	Capacity of unit	15 quintal of washing in 15-20 minutes
	Commodity	Carrot
	Equipments purchased	Yes
	Condition of infrastructure	Very Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to	Yes
	agency	
1		1

Pack House/Cold Storage/RefVan/ primary processing

Performa for use by Joint Inspection Team Post Harvest Management Pack House/Cold Storage/Ref Van/ Primary processing

Sr.	Details	Remarks
No.		
1	Name of the project	Carrot washing machine
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Sawan Singh S/o S. Natha Singh
5	Location of Project	Vill Mona Kalon, Block Hoshiarpur-II
6	Total Project Cost	Rs. 132000
7	Amount Released & date	Rs. 60,000
8	Expenditure incurred	Rs. 132500
9	Status	Working
	Capacity of unit	15 quintal of washing in 20 minutes
	Commodity	Carrot
	Equipments purchased	Yes

Condition of infrastructure	Very Good
Whether NHM logo displayed	Yes
Whether funds disbursed to	Yes
agency	

Performa for use by Joint Inspection Team Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr.	Details	Remarks
No.		
1	Name of the project	Turmeric Processing Machine
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Farmer Produce Promotion Society (FAPRO)
5	Location of Project	Vill Kangmai/ Ghugial, Block-Bhrfa (Circle-
		Hariona)
6	Total Project Cost	Rs. 4.35 lac
7	Amount Released & date	Rs. 1.74 lac
8	Expenditure incurred	Rs. 4.401 lac
9	Status	Working
	Capacity of unit	20 etl. per Hour
	Commodity	Turmeric
	Equipments purchased	M/s Kohenoor engg. works. Sangli
	Condition of infrastructure	Very Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to	Yes
	agency	

Performa for use by Joint Inspection Team Production of Planting Material Nursery

Sr. No.	Details	Remarks
1	Name of the project	Modern Nursery
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Implementing Agency	NHM
5	Location of Project	Village. Daulat Ram Gillon.
		Block Bheenga, Distt-
		Hoshiarpur

6	Total Project Cost	7.25 lac
7	Amount Released by DAC	Rs. 3.125 lac
8	Expenditure incurred	Rs. 7.10 lac
9	Status of Project	
	Name of Nursery and crop for	Manjit Fruit Nursery. Citrus,
	which plants are produced	Kinnow, Bara masi, Lemon,
		sweet organge etc.
	 Name of crops for which seeds 	Jatti Khatti
	produced	
	Quantity produced	90000
	Quantity sold	75000
	Rate	Rs. 30/- in poly bag & Rs.25/-
		switch bay
	Amount realized through sale	
	Whether NHM logo displayed	Mother block infected by thrips
		and mites.

Performa for use by Joint Inspection Team

Area Expansion / Rejuvenation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	P.A.A Sh. Gurdeep Singh S/o Sh. Kehar Suity, Village Darapur, Block-Bhuga
2	Total land available with the beneficiary (ha).	3 hac
3	Crop Cluster under which covered.	Citrus
4	Name & variety of crop planted.	Kinnow (1.6 hac)
5	Source of planting material.	Manjit Nursery, Gillon
6	Number of planting material.	750
7	Number of plants planted/ rejuvenated.	750
8	Date of plants which survived (also indicate percentage survival).	Aug 2012
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs. 38400 + 12800

10	Amount paid and date of payment.	RTGS in Account of farmer
11	Mode of payment.	RTGS
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Tubewell
13.	Whether Drip/ Sprinkle System in use.	-
14.	Other inputs provided.	As per recommendation
15.	Whether assistance available for Organic Farming	N.A.
16	If so, area covered	-
17.	Assistance available	-
18.	Available marketing facility for the crop.	Yes
19.	Other infrastructure available in the vicinity.	Grading Working unit at Bhuya
20.	General upkeep of the plot;	good
	Very good/ Good / Average/ Poor.	
21.	Any other relevant observation by the JIT.	

Performa for use by Joint Inspection Team Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr.	Details	Remarks
No.		
1	Name of the project	Mechanization
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Sh. Ravinder singh S/o Dorbara Singh
5	Location of Project	Vill Sikri
6	Total Project Cost	Rs. 1.80 lac
7	Amount Released & date	Rs. 60,000
8	Expenditure incurred	Rs. 1.82 lac
9	Status	
	Capacity of unit	One ton per

Commodity	Citrus (Kinnow)
Equipments purchased	Yes from Bhullar Agriculture Works Mansa.
Condition of infrastructure	Very Good
Whether NHM logo displayed	Yes
Whether funds disbursed to	Yes
agency	

Performa for use by Joint Inspection Team

Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr.	Details	Remarks
No.		
1	Name of the project	Mechanization
2	Year of Implementation	2012-13
3	Project Period	2012-13
4	Name of Beneficiary	Sh. Jaswindu Pal Singh S/o Sh. Mohinder Seti
5	Location of Project	Vill Dra Pur, Block Bheya
6	Total Project Cost	Rs. 2.10 lac
7	Amount Released & date	Rs. 60,000
8	Expenditure incurred	Rs. 2.15 lac
9	Status	
	Capacity of unit	One ton per Hour
	Commodity	Citrus (Kinnow)
	Equipments purchased	Yes from Kalsi engg worke Dabwali, Sirsa
		(Hariana)
	Condition of infrastructure	Very Good
	Whether NHM logo displayed	-
	Whether funds disbursed to	Yes
	agency	

Hoshiarpur District :



Gerbera cultivation in poly house



Carrot washing unit for marketing outside Punjab



Kinnow at fruiting stage in farmers field.



Citrus nursery at private sector



Kinnow grader at farmers field



Kinnow orchards intercropped with wheat crop



Field visit to kinnow grower



Farmer NGO for marketing of horticulture products



NEW plantation of Kinnow in diara land



Waxing and Packaging unit at citrus unit group