

Approved by GoI



Annual Action Plan
STATE HORTICULTURE MISSION
UTTAR PRADESH
[2011-2012]

CONTENTS

S.No	Component	Page No.
1	Project at a Glance	1
2	Introduction	2-3
3	Objectives	3
4	NHM Strategy	3-4
5	Production and Productivity Improvement :Geography and Climate	4-5
6	Brief of Horticulture in the State	5-6
7	Progress of NHM	7-8
8	Major Infrastructures Created under NHM	8
9	SWOC Analysis	9
10	Present Area, Production and Productivity of the crops (2004-05 onwards)	10
11	Source of Planting Material and Varieties	10-11
12	Crop wise Extent of Area Identified for Rejuvenation	11
13	Cropwise/Specific Varietywise Area Expansion Proposed in Identified Districts	11-12
14	Crop wise Requirement of Planting Material	12
[A]	Plantation, Infrastructure & Development	
15	Production of Planting Materials (Plants/Seeds)	13-14
16	Vegetable Seed Production	14-15
17	Seed Infrastructure	15
18	Establishment of New Orchards	15-17
19	Flowers	18-19
20	Spices	19-20
21	Aromatic Plants	20-21
22	Maintenance of orchards	21
23	Rejuvenation of Old / Senile Orchards	21-22
24	Integrated Development of Mushroom	22
25	Creation of Water Resources Sources	22-23
26	Protected Cultivation	23-24
27	Promotion of INM/IPM	24-25
28	Organic Farming	25-26
29	Pollination Support Through Bee-Keeping	26-27
30	Horticulture Mechanization	28-29
31	Technology dissemination through demonstration/front line demonstration	29
32	Human Resource Development	30-32
[B]	Integrated Post Harvest Management & Marketing Infrastructure	33-35
[C]	Establishment of Marketing Infrastructure for Horticulture Produce	35-36
33	Mission Management	36
34	Financial Requirement	37
35	Expected Outcomes	38
36	Districtwise Action Plan (Physical & Financial)	Attached

STATE HORTICULTURE MISSION, UTTAR PRADESH

Project at a Glance - Annual Action Plan 2011-12

Project Period	:	2011-12
Project Areas	:	45 Contd. NHM Districts.
District Covered	:	Agra, Allahabad, Ballia, Banda, Barabanki, Bareilly, Basti, Bulandsahar, Etawah, Faizabad, Farrukhabad, Ghaziabad, Ghazipur, Gorakhpur, Hathras, Jaunpur, Jhansi, Kannauj, Kanpur Nagar, Kaushambi, Kushi Nagar, Lucknow, Mahrajganj, Mainpuri, Mathura, Meerut, Mirzapur, Moradabad, Muzaffar Nagar, Pratapgarh, Raebareli, Saharanpur, Siddarth Nagar, Sitapur, Sonbhadra, Sant Kabir Nagar, Sant Ravidas Nagar, Sultanpur, Unnao, Varanasi, Jalaun, Chitrakoot, Lalitpur, Hamirpur & Mahoba.

Proposed Outlay : (In lakh) :

S. No	Component	Outlay (Rs. lac)	GOI Share (85%)	State Share (15%)
1-	45 NHM Districts of Uttar Pradesh	12000.00	10200.00	1800.00

Physical Programmes :

S. No.	Programme	Unit	Phy Target	Fin Outlay
1	Production of planting material	No.	43	353.13
2	Seed Production	Ha	2885	796.50
3	Seed Infrastructure	No.	2	300.00
4	Establishment of New Gardens- Perennials	Ha	5428	552.04
5	Establishment of New Gardens- Non Perennials	Ha	2550	795.64
6	Maintenance (IInd & III Year)	Ha	18777	1073.88
7	Intigrated Development of Mushrooms	No.	4	75.00
8	Flowers Cultivation	Ha	3273	812.76
9	Spices Cultivation	Ha	5520	690.00
10	Aromatic Plants	Ha	295	46.88
11	Rejuvenation/Canopy Management	Ha	2325	348.75
12	Creation of Water resources	No.	160	801.60
13	Protected Cultivation	Sqm/Ha	321975	1096.58
14	Promotion of INM/IPM	Ha	2034	64.31
15	Organic Farming	Ha/No.	2985	343.50
16	Pollination support through bee keeping	No.	18141	148.62
17	Horticulture Machanization	No.	230	155.78
18	FLD (Public Sector)	No.	1	25.00
19	Human Resource Development (HRD)	No.	16300	387.30
20	Integrated Post Harvest Management	No.	264	2450.80
21	Estb. of Marketing Infrastructure	No.	185	110.75
22	Special Interventions	No.		
23	Mission Management	5%		571.20
GRAND TOTAL				12000.00

Implementing Agency : State Horticulture Mission, Uttar Pradesh.
Deptt. of Horticulture & Food Processing, U.P.
2 Sapru Marg, Lucknow

Annual Action Plan
STATE HORTICULTURE MISSION, UTTAR PRADESH
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INTRODUCTION:

Uttar Pradesh has the natural advantage of diverse agro climatic conditions, which enables production of wide range of horticulture crops. Uttar Pradesh is bestowed with rich bio-diversity and varied agro-climatic conditions, ideal for growing a large variety of horticultural crops. The sector, which includes fruits, vegetables, floriculture, spices and medicinal & aromatic plants, has gained importance in terms of enhanced income per unit area, providing nutritional security, source of raw material for many food processing industries, earning considerable amount of foreign exchange, leading to socio-economic improvement of the people of the state. Keeping the above importance of horticulture in the national economy and the economy of the state, in particular, a systematic and scientific effort of developing horticulture in the state has been made. The objective, therefore, is to formulate programmes aimed at developing the potential that exists for growing a variety of horticultural crops, to raise income and to generate employment and to achieve a growth rate of 10% in horticulture sector. This is also well known that horticultural products like fruits, vegetables, spices, mushroom and honey play a major role in nutritional security. By increasing horticultural production activities right from sowing to its maintenance, irrigation, harvesting, cutting, marketing, processing and value addition etc. help in creating 860 mandays per hectare per years.

Horticulture has emerged, as one of the major agricultural activities as there has been a substantial increase both in area and production of horticulture crops. Horticulture crops have the inherent advantage of providing higher productivity per unit area of land as compared to other crops, resulting in higher income and employment generation in rural areas. Fruits and vegetables have been shown to earn 20-30 times more foreign exchange per unit area than cereals due to higher yields and higher prices available in the international markets. One important trend observed in the last five years is that horticulture development has gradually moved out of its rural confines into urban areas and from traditional agricultural enterprise to the corporate sector. This trend has led to the adoption of improved technology, greater commercialization and professionalism in the management of production and marketing of different horticulture crops. As a result, we today witness a perceptible change in the concept of horticulture development in the State.

The horticulture scenario of the country and the state has been changing rapidly both in terms of production and productivity. National Horticulture Mission Scheme has helped in exploring the horticulture potential of the State since 2005-06 as it provides for taking up a variety of components in the areas of development of planting material, production and productivity improvement programmes, PHM and marketing, which are to be implemented on a cluster approach for the development of potential crops. The thrust of Mission is on area based regionally differentiated cluster approach for development of horticulture crops, having comparative advantage.

Uttar Pradesh is a densely populated state. As per the population census 2001, the population of the state is 16.62 crores and it is on the rise since then. In order to cater the need of fruits, vegetables and other horticultural crops as per the recommendation of Indian Council of Medical Research, the production level of these crops need to be multiplied. Further, the requirement for value addition and processing purposes, inter-state trading and quality production for export requires special attention and enhance quality production. The area production and productivity of horticulture crop has considerably increased as the state and central Govt. have paid focused attention towards these crops. More income per unit area and employment generation in short span of time have attracted the enterprising farmers of the state, which resulted in diversification towards horticulture crops. These crops have proved to be the boon to the small and marginal farmers of the state who accounts for more than 90% holding of the State. This is more important because nearly 70% of the population is dependent on agriculture.

The diverse and suitable agro-climatic and agro-ecological situations have enormous potential for horticultural crops production in the state. With the inception of National Horticulture Mission (NHM) scheme since 2005-06, this potential is being explored and benefits harnessed by the farmers by getting more income per unit area, consumer by getting these crops round the year for consumption on comparatively affordable price, entrepreneurs/processors by having more raw material for value addition and unemployed youth by getting more employment through forward and backward linkages. In short, the advent of NHM in the State have explored the commercial aspect of the horticultural crops and this has resulted in commercialization of these crops to the fore.

During coming years, the planning of horticulture development in a holistic manner by identifying the critical gap in infrastructure, well knitting the linkages of production to harvesting, processing to value addition and exports to achieve the objectives of National Horticulture Mission in the state and country at large.

Under 11th five year plan, following priority areas have been proposed for horticultural development in the state :-

- Increase the horticulture growth rate which is 6% at present to 10%
- Bringing additional 13.00 lakh hectare under horticulture fold.
- Horticulture development in cultivable wasteland and fallow land.
- Promotion of high quality and productive horticultural crops production suitable for processing especially mango and potato for export to international markets.
- Training to farmers, self help groups/horticultural cooperative societies/mahila samakhya groups in the horticultural development activities.
- Increasing the participation of scheduled caste/scheduled tribes in horticulture and employment generation activities by providing them more subsidy in comparison to general farmers.
- Development of infrastructural facilities and post harvest management.
- Large scale promotion of private sector producers for taking up fruits, vegetables and minor fruit crops.

OBJECTIVES

The main objectives of the Mission are:

- i) To provide holistic growth of the horticulture sector through an area based regionally differentiated strategies which include research, technology promotion, extension, post harvest management, processing and marketing, in consonance with comparative advantage of each State/region and its diverse agro-climatic feature;
- ii) To enhance horticulture production, improve nutritional security and income support to farm households;
- iii) To establish convergence and synergy among multiple on-going and planned programmes for horticulture development;
- iv) To promote, develop and disseminate technologies, through a seamless blend of traditional wisdom and modern scientific knowledge;
- v) To create opportunities for employment generation for skilled and unskilled persons, especially unemployed youth.

NHM STRATEGY

To achieve the above objectives, the mission would adopt the following strategies:

- (i) Ensure an end-to-end holistic approach covering production, post harvest management, processing and marketing to assure appropriate returns to growers/producers;
- (ii) Promote R&D technologies for production, post-harvest management and processing;
- (iii) Enhance acreage, coverage, and productivity through:
 - (a) Diversification, from traditional crops to plantations, orchards, flower and vegetable gardens;
 - (b) Extension of appropriate technology to the farmers for high-tech horticulture cultivation and precision farming.

- (iv) Assist setting up post harvest facilities such as pack houses, ripening chambers, cold storages, Controlled Atmosphere (CA) storages etc, processing units for value addition and marketing infrastructure;
- (v) Adopt a coordinated approach and promotion of partnership, convergence and synergy among R&D, processing and marketing agencies in public as well as private sectors, at the National, Regional, State and sub-State levels;
- (vi) Where appropriate and feasible, promote National Dairy Development Board (NDDB) model of cooperatives to ensure support and adequate returns to farmers;
- (vii) Promote capacity-building and Human Resource Development at all levels.

The brief account of strategy and road-map is formulated below taking into account the Utilized State Potential (USP), what is required to be achieved in coming years taking into account the challenges ahead and the constraints of the farming community.

Uttar Pradesh had been the leader in agriculture and allied sector since ages and National Horticulture Mission, Uttar Pradesh aspires to further establish the superiority and quality of all the horticulture crops.

A. PRODUCTION AND PRODUCTIVITY IMPROVEMENT :

Geography and Climate

Uttar Pradesh is India's fifth largest and most populous **state**, located in the north-western part of the country. Uttar Pradesh is bounded by Nepal on the North, Uttrakhand on the north-east, Himachal Pradesh on the north-west, Haryana on the west, Rajasthan on the south-west, Madhya Pradesh on the south and south-west, and Bihar on the east. Situated between 23°52 and 31°28'N latitudes and 77°3' and 84°39'E longitudes, this is the fifth largest state in the country in terms of area, and the first in terms of population. It spreads over a large area, and the plains of the state are quite distinctly different from the high mountains in the north. The climate of Uttar Pradesh can also vary widely, with temperatures as high as 47 °C in summer, and as low as -1°C in winter.

Tropical monsoon climate of Uttar Pradesh is marked by three distinct seasons:

1. **Summer** (March-June): Hot & dry (temperatures rise to 45 °C, sometimes 47-48 °C); low relative humidity (20%); dust laden winds.
2. **Monsoon** (June-September): 85% of average annual rainfall of 990 mm. Fall in temperature 40-45° on rainy days.
3. **Winter** (October-February): Cold (temperatures drop to 3-4 °C, sometimes below -1 °C); clear skies; foggy conditions in some tracts.

Uttar Pradesh is a big state having geographical area of 2,40,928 sq.km. area with the population of 16.62 crores (census 2001). The population density is 690 per sq.km. The state has 18 Divisions and 72 Districts, 312 Tehsils, 689 Town areas and 820 Blocks. The rural structure consists of 8135 Nyay Panchayat, 52,000 Gram Panchayat and 1,07,452 Villages having 2.58 Crores Families.

Uttar Pradesh is being covered by following 9 Agro Climatic Zones:-

Zone	Region	Geography & Climate of the Region Districts
Zone-1	Tarai Region	Some part of the district Saharanpur, Muzaffar nagar, Bijnore, Moradabad, Rampur, Bareilly, Pilibhit, Shahjahanpur, Lakhimpur, Bahraich & Shravasti are under this zone. The soil type of this zone is mostly alluvial and clayey alluvial and contains sufficient quality of carbonic materials. The average annual rainfall of this zone is 1150 mm.
Zone-2	Western Plain Region	District Bijnore, Moradabad, Jyoti-ba-phule nagar, Rampur, Bareilly, Badaun & Pilibhit are under this zone. This is very fertile region and the soil type is mostly sandy & clayey the average annual rainfall of this zone is 700-1000 mm.

Zone	Region	Geography & Climate of the Region Districts
Zone-3	Central Western Region	District Saharanpur, Muzaffarnagar, Meerut, Baghpat, Ghaziabad, Gautambudh Nagar & Bulandshahar are under this zone. The soil of this region are clayey- alluvial, alluvial, sandy alluvial and sandy types. The average annual rainfall of this zone is 600-965 mm.
Zone-4	South-Western Region	District Agra, Firozabad, Mainpuri, Etawah, Aligarh, Mahamaya Nagar & Mathura are under this zone, The soil is mostly of sandy, sandy-alluvial, alluvial & clayey alluvial type. Some area also has saline & sodic soils. The average annual rainfall of this zone is 750 mm.
Zone-5	Central Plain Region	District Lucknow, Unnao, Raebareilly, Sitapur, Hardoi, Kheeri, Kanpur Nagar, Ramabai Nagar, Etawah, Kannauj, Farrukhabad, Auraiya, Allahabad, Kaushambi, Fatehpur and Shahjahanpur are under this zone. Saline & sodic soil types covers major area. Besides these, alluvial-sandy, alluvial clayey, alluvium & clayey soil types belong to this region. The average annual rainfall is 850-900 mm.
Zone-6	Bundelkhand Region	District Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Chitrakoot and Banda falls under this zone. The soil type is mostly rocky. The average annual rainfall is 800-1000 mm.
Zone-7	North Eastern Plain Region	District Gonda, Baharaich, Balrampur, Shravasti, Gorakhpur, Maharajganj, Kushinagar, Siddarth nagar, Basti, Sant kabir nagar and Deoria are under this zone. Major soil types are sand-alluvial, clayey alluvial & diara. The average annual rainfall is 1000-1200 mm.
Zone-8	Eastern Plain Region	District Barabanki, Faizabad, Ambedkarnagar, Sultanpur, Pratapgarh, Jaunpur, Azamgarh, Mau, Ballia, Sant Ravidas nagar, Ghazipur, Varanasi and Chandauli are under this zone. Major soil types are sandy alluvial, clayey & sodic soil. The average annual rainfall of this region is 1000-1200 mm. Maximum temperature ranges between 40-42°C and 4.6°C.
Zone-9	Vindhyachal Region	District Mirzapur, Sonbhadra and Allahabad are under this zone. The maximum area is undulated and rocky. The soil of plain is light black clay and red alluvial. Average annual rainfall of this zone is 1100 mm. Maximum and minimum temperature ranges between 40-49°C and 3°C.

BRIEF OF HORTICULTURE IN THE STATE

Horticulture crops comprises of a wide variety of crops viz. fruits, vegetables, flowers, spices, nuts, aromatics and medicinal plants, beekeeping, mushroom cultivation betel-vine and other crops, which are important for food security and allied components. U.P. is blessed with diverse agro climatic conditions; those are conducive for cultivation of varied horticultural crops round the year. UP's varied agro-climate is ideal for growing large number of these crops round the year enabling their availability on a regular basis. Uttar Pradesh holds a vast potential for the development of horticulture.

The growth in horticulture based activities in the last five years, is due to the thrust given to this activity during the past five year plans by the central & state governments. The allocation was raised and a number of concessions, subsidies and incentives were given to the growers and exporters.

There has been a substantial increase both in area and production of horticulture crops during the 10th plan. The area under fruits crops is expected to go up from 11.36 lakh hectare during 2009-10 to 12.25 lakh hectare during 2010-11 and production is also likely to go up from 135-85 lakh MT to 149.43 Lakh MT. Similarly, the production of vegetable crops is also expected to go up from 365.20 Lakh MT to 401.72 Lakh MT during 2010-11. The increase in production of Potato has also been significant as the production during 2009-10 is 134.47 Lakh MT which is also likely to go up to 151.75 Lakh MT during 2010-11.

U.P. is the first State in the country to declare those areas as fruit belts where concentrated specific fruit growing areas exist. Major mango, guava and aonla fruit producing areas have been declare as fruit belts by the State.

The present share of Uttar Pradesh in total horticulture production of the country is approximately 26%. **U.P. ranks third in fruits, Second in vegetable and first in potato production** among all states. Important fruits grown in the state are mango, guava, aonla, papaya, banana, jack-fruit, ber and citrus. The major vegetables grown in the state are-peas, chilies, okra, tomato, brinjal, cauliflower, cabbage, spinach, melon, radish, carrot, turnip, cucurbits and other vegetables. The state has about 30.00 lac hec. under various horticultural crops. **Uttar Pradesh is the second largest producer of vegetables** in the country after West Bengal. Significant increase in area under vegetables has been recorded on small and marginal farms. **As regards productivity**, the productivity of fruits was 11.5 MT/Ha. during 2008-09 which is likely to increase to 12.18 MT/ha during 2009-10. Productivity of vegetables is likely to increase to 18.09 MT/ha from 17.28 MT/ha during 2008-09.

Area and Production Level of major crops Achieved in Five Year Plan Periods

(Area in Lac. ha, Prod. in Lac. M.T.)

S. No.	Plan Periods	Fruits		Vegetable		Potato	
		Area	Prod.	Area	Prod.	Area	Prod.
1	Ist FYP (1951-56)	1.00	5.00	1.00	10.00	0.97	6.86
2	IIInd FYP (1956-61)	1.50	9.00	1.50	15.00	1.13	7.99
3	IIIrd FYP (1961-66)	2.99	17.99	2.43	27.13	1.47	13.41
4	IV FYP (1969-74)	3.49	21.79	3.07	36.08	1.81	16.95
5	Vth FYP (1974-79)	5.23	28.15	4.94	55.25	2.70	42.51
6	VIth FYP (1980-84)	5.80	38.39	7.41	89.92	3.09	52.56
7	VIIth FYP (1985-90)	6.89	56.60	8.30	108.40	3.29	59.90
8	VIII FYP (1992-97)	8.10	81.78	9.97	159.00	4.11	92.63
9	IXth FYP (1997-2002)	7.73	71.56	13.47	203.68	4.71	89.72
10	Xth FYP (2002-2007)	9.14	103.00	16.67	276.90	4.71	104.60
11	XI FYP (2007-12)	13.21	164.37	24.10	441.90	6.81	166.93

LAND AVAILABILITY

The land use statistics of the Uttar Pradesh are given below :-

Sl. No.	Item	Period	Area (Lakh.ha)
1.	Net sown area	2007-08	164.17
2.	Area sown more than once	2007-08	89.03
3.	Cropping intensity	2007-08	154.23
4.	Net irrigated area	2007-08	130.85
5.	%age of net irrigated area to net sown area	2007-08	80%
6.	Reported area under land use	2007-08	241.71
7.	Forest	2007-08	16.58
8.	Usar & uncultivable land	2007-08	5.07
9.	Land under other than cultivation	2007-08	27.61

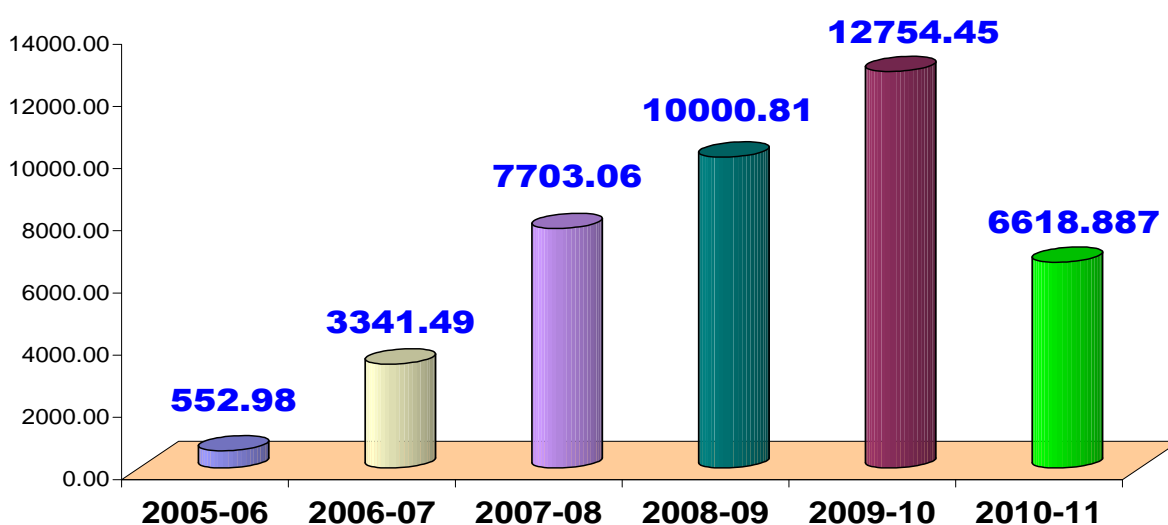
Sl. No.	Item	Period	Area (Lakh.ha)
10.	Culturable waste land	2007-08	4.40
11.	Permanent pastures and other grazing land	2007-08	0.65
12.	Land under other trees & shrubs	2007-08	3.74
13.	Current fallow land	2007-08	14.08
14.	Other fallow land	2007-08	5.40

Progress of NHM

Since 2005-06, the salient achievement under NHM in Uttar Pradesh have been as follows:-

NHM- Financial Progress

[2005-06 to 2010-11]



Year	Approved Outlay	Release	Total Expenditure
2005-06	11519	5340.25	552.98
2006-07	12398	6287.27	3341.49
2007-08	17865	13826	7703.06
2008-09	16966	11980	10000.81
2009-10	13502	10898	12754.45
2010-11	12500	8217.94	6618.887

The physical achievements since 2005-06 to 2010-11 have so far been as under:-

Crops	Achievements						TOTAL
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	
HD Mango						25	25
HD Guava						45	45
Mango	3064	1852	3420	3025	2573	1567	15501
Guava	1481	447	2510	2877	3219	2237.5	12772
Aonla	1757	229	1277	1400	1469	1015	7147
Litchi	331	463	848	1080	917	446	4085
Ber/Bael/Citrus			72	448	592	466.5	1578.5
Banana	970	500	2520	2828	3378	2049	12245

Crops	Achievements						TOTAL
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	
Flowers	652	1712	4289	5461	2919	2400	17433
Spices	2080	3974	10724	18010	6575	2680	44043
Seed Production	281	212	767	2185	2824	2279	8548
Rejuvenation	626	77	1624	1311	734	4692	9064
Creation of Water resources	0	0	1	34	41	54	130
Mulching	434	175	1869	3555	0	85	6118
Promotion of IPM	400	1300	9010	7720	3685	1300	23415
Organic farming	1050	10459	8311	9607			29427
Vermi-Compost/HDPE Unit	0	452	1052	2066	336	512	4418
Training of Farmers	17045	727	24365	26406	21275	17353	107171
Bee keeping	1200	8721	11808	10160	12045	4065	47999

Major Infrastructures created under NHM :

Programmes	No.	Institution
Model Nursery (Public Sector)	12	NDUAT-Faizabad/ CSAUAT-Kanpur/ SVBPUAT-Meerut/ NBRI- Lucknow/Crop Research Station-Ghazipur/ KVK's-Bahraich, Chandauli, Mau/ CISH, Rahmankhera/ CISH-Raebareilly Road/ BHU-Varanasi/ Allahabad Agriculture Institute- Allahabad
Small Nursery (Public Sector)	16	KVK (BHU) Bharkhacha-Mirzapur/ AAIDU-Allahabad/ NBRI- Lucknow/ CSAUAT-Kanpur/ SVBPUAT-Meerut 12 Nurseries at KVK's
Plant Health Clinic	5	BHU-Varanasi/ CSAUAT-Kanpur/ SVBPUAT-Meerut/ NDUAT- Faizabad/ Biotek Park-Lucknow
Leaf Tissue Analysis Lab	6	BHU-Varanasi/ CISH-Lucknow/ NDUAT-Faizabad/ CSAUAT-Kanpur/ SVBPUAT-Meerut/ Biotek Park- Lucknow
Bio Control Labs	7	BHU-Varanasi/ NDUAT-Faizabad/ SVBPUAT-Meerut/ CSAUAT-Kanpur/ Biotek Park-Lucknow/ CISH-Lucknow/ Lucknow University
Tissue Culture Labs	4	NDUAT-Faizabad/ SVBPUAT-Meerut/ CSAUAT-Kanpur/ BHU-Varanasi
Mushrooms Spawn Labs	5	NDUAT-Faizabad/ Bahraich/ KVK, Saharanpur / Nagina/ SVBPUAT-Meerut
Diseases Forecasting unit	1	CSAUAT, Kanpur
Seed Infrastructure	1	BHU, Varanasi
Rural/Wholesale Mandies	12	Mandi Parishad UP-Sidharth Nagar, Farrukhabad, Ghaziabad (2) Santkabir Nagar, Saharanpur, Bulandshahar(2), Kanpur Nagar, Barabanki, Firozabad & Ballia
Cold Storages	157	Major Potato Producing Districts
Model Nursery (Public Sector)	12	NDUAT-Faizabad/ CSAUAT-Kanpur/ SVBPUAT-Meerut/ NBRI- Lucknow/Crop Research Station-Ghazipur/ KVK's-Bahraich, Chandauli, Mau/ CISH, Rahmankhera/ CISH-Raebareilly Road/ BHU-Varanasi/ Allahabad Agriculture Institute- Allahabad
Small Nursery (Public Sector)	16	KVK (BHU) Bharkhacha-Mirzapur/ AAIDU-Allahabad/ NBRI- Lucknow/ CSAUAT-Kanpur/ SVBPUAT-Meerut 12 Nurseries at KVK's
Plant Health Clinic	5	BHU-Varanasi/ CSAUAT-Kanpur/ SVBPUAT-Meerut/ NDUAT- Faizabad/ Biotek Park-Lucknow

SWOC ANALYSIS

On analyzing the strength, weakness, opportunities and challenges covering the horticulture sector, it is evident that horticulture sector would be competitive provided weaknesses are converted into opportunities.

Strength

- Endowed with agro climatic conditions suitable for a large number of horticultural crops with plenty of sunshine and large area of fertile soil & water.
- A number of cultivars and their adoption in different agro-climatic condition make the availability of horticultural produce for expanded period.
- Network of research infrastructure to support the development. Changing dietary habits of the people with rise in income would need more horticultural produce.

Weaknesses

It is clear from the forgoing review that there has been a substantial increase in area, production and productivity in major horticulture crops since last plan periods. However, the gaps in the horticulture development, in the state, have also been identified. Major gaps are listed below:-

- Lack of adequate quantities of quality planting material, improved/hybrid seeds.
- Comparably low productivity of various horticultural crops.
- Lack of efficient technology in the area specific & technical knowledge at various levels.
- Lack of awareness regarding pre and post harvest management practices.
- Lack of proper marketing infrastructure and strong marketing system having forward and backward linkages.
- Slow promotion of processing of horticultural produce, value addition and less availability of processing industries in the sector.
- Lack of human resource development, professional capability of departmental staff.
- Lack of technical personnel at block /grass root level.

Opportunities

- Adequate availability of raw material for processing industries.
- The state has sufficient number of institutions under Central Govt. viz. ICAR, CSIR, etc. and SAU's to backup the development programmes.
- Compact areas having cheap, hard working and skilled labour force.
- Large tract of alluvial soil in the basin of different rivers like- Ganga, Yamuna, Rapti, Ghaghara, etc.
- The activity will encourage the export of fruits, vegetables and spices from the state. This will provide better returns to the farmers as well as foreign exchange to the state.
- The approach will also be helpful in minimizing the post harvest losses during the handling of produce.
- The mission will also take care of environmental issues with respect to safe/organic produce for consumers.
- Vast opportunity to attract youth towards farming sector.

Challenges

- Reduced productivity in the absence of improved technology.
- Malnutrition of millions if horticulture development does not move fast.
- Large number of production constraints and lack of infrastructure.
- Inadequate infrastructure for quality management and quarantine.
- U. P. is a land locked state.
- There is lack of reliable statistical information in area and production of horticultural crops on scientific basis.

PRESENT AREA, PRODUCTION AND PRODUCTIVITY OF THE CROPS (CROP-WISE) (2004-05 ONWARDS):-

The state horticulture development has been given a focused attention during few past plan period. This has resulted in spectacular change in the horticultural crops status.

Area and Production of Fruits, Vegetables and Potato in the state

(Area in Lac. ha., Prod. in Lac. M.T.)

Year	Fruits		Vegetable		Potato		TOTAL	
	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.
2004-05	8.73	97.49	15.46	251.44	4.40	98.22	28.59	447.15
2005-06	8.86	99.36	15.56	254.49	4.59	102.3	29.00	456.19
2006-07	9.14	103.00	16.67	276.90	4.71	104.6	30.52	484.54
2007-08	9.77	112.27	17.81	301.82	5.03	114.01	32.61	528.11
2008-09	10.53	123.50	19.21	332.00	5.43	125.42	35.17	580.92
2009-10	11.36	135.85	20.72	365.20	5.85	134.47	37.93	635.52
2010-11(Target)	12.25	149.42	22.34	401.72	6.31	151.75	40.91	702.91
2011-12 (Proj. Tgt.)	13.21	164.37	24.10	441.90	6.381	166.93	44.11	773.20
2012-13 (Proj.Tgt.)	14.20	207.89	25.92	482.89	6.49	170.80	46.61	861.58

Source of Planting material and varieties :

The quality planting material for area expansion programme is being arranged/procured primarily from Govt. nurseries of the department and in case of deficit, it is being arranged from Central Institute of Sub-tropical Horticulture Institute, RehmanKhera, Lucknow, State Farm Corporation, Govt. of India, State Agriculture Universities, CIMAP and other public sector organizations/institutions. At times the quality planting material is also procured from the private sector nurseries as per norms/standards fixed by Govt. of India.

The as per the GO no.- 3397/58-2008-249/2008 dated 11-09-2008 the quality of planting materials has to be verified by the constituted committee by the District Magistrate in which the officers of the DHM, department of Agriculture, Forest and district Economic and Statistical officer are the members. This committee examines the quality of procured planting material on random basis. The quality of bio fertilizers is ensured as the sample drawn are being tested at designated labs like NCOF, Gol, Ghaziabad and SAU's.

The varieties recommended by Technical Support Group (TSG) of State Horticulture Mission, U.P. is listed below. These varieties are recommended to be planted/cultivated in the different agro-climatic zones of the State :-

S.No	Crop/ Item	Varieties/Specification
1)	Grafted Saplings of different Fruit Plants	
	Mango	Dasehari, Chausa, Amarapali, mallika, Ramkela, Totapari, Gaurjeet, Bombay Green, Dasehari-51
	Guava	L-49, Allahabad Safeda, Lalit, Sangam, Apple colour
	Aonla	NA-6, NA-7, NA-10, Kanchan, Laxmi-52
	Litchi	Rose scented, Shahi
	Citrus Fruits	Kagzi Lime, Mandrin, Kinno.
	Bael	NB-5, NB-6& other suitable selections
	Ber	Umran, Karaka, Gola, Sabiya.
	Banana	Grand-naine
2)	Flowers	
	Gladioli bulb	White Prosperity, Friendship Pink, Big lime, Supereme, American Beauty, Novalux, Yellow supreme, Rose Supreme, Jitter, Jister gold, Jackson willy gold etc.
	Marrigold	Pusa Narangi. Pusa Basanti & Other Hybrids
	Tuberose	Vaibhav, Shringar, Suvasini, Swarnrekha, Rajatrekha

S.No	Crop/ Item	Varieties/Specification
3)	Spices	
	Turmeric	Rajendra Sonia, Azad Haldi-1 N.H.D.-18, Vallabh priya, Roma, & other important varieties
	Chillie (Hybrid)	Indira, Ujala (PS/NU)010A, Pari hot, NS-1101, NS211, Mahajwala, Divyajyoti, 86235, Siddhi, Jawahar Dhoom, Ulka, Daiya, BSS 414, Anmol
	Garlic	G-1, G-50, G-282
	Ginger	Suprabha, Suruchi, Surabhi, Baruasagar
4)	Aromatic Plants	
	a. Damisk Rose	Noorjahan, Rani Sahiba.

Crop wise extent of area identified for rejuvenation:-

Uttar Pradesh is a major mango, guava and aonla producing State. The old and senile/unproductive orchards are being rejuvenated under NHM since 2005-06 and an area of 9064 ha. have been rejuvenated since then. The Technologies adopted are as suggested/ recommended by CISH, Rehmankhera, Lucknow.

The area under mango is 2.76 lac ha. in the State out of which the area in fruit belt districts is approximately half of it. Rejuvenation / replacement of senile plantation with canopy management is necessary for increasing the productivity. During past years, due to unawareness and unacceptability of this technique at farmer's level, the targets could not be achieved. However, during 2011-12, an area of 2325 ha is proposed to be rejuvenated by way of light, medium and hard pruning and other recommended management practices. Aonla and guava orchards are also to be rejuvenated on priority basis in old orchards of major districts.

Cropwise area expansion proposed in identified districts :

S.No.	Crop	Clusters/Districts
Fruits		
1	Mango	Saharanpur, Muzzaffarnagar, Moradabad, Meerut, Ghaziabad, Bulandshahar, Mahamaya Nagar, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Kanpur Nagar, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Barabanki, Faizabad, Sultanpur, Siddarth Nagar, Basti, Sant Kabir Nagar, Mahrajganj, Gorakhpur, Kushi Nagar, Ballia, Jaunpur, Ghazipur, Sant Ravidasnagar, Mirzapur & Sonebhadra
2.	Guava	Saharanpur, Muzzaffarnagar, Moradabad, Meerut, Ghaziabad, Bulandshahar, Mahamaya Nagar, Mathura, Agra, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Farrukhabad, Etawah, Kanpur Nagar, Kannauj, Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Kaushambi, Allahabad, Barabanki, Faizabad, Siddarth Nagar, Basti, Gorakhpur, Ballia, Jaunpur, Ghazipur, Varanasi, Sant Ravidasnagar & Mirzapur
3.	Aonla	Moradabad, Mahamaya Nagar, Agra, Mainpuri, Sitapur, Raebareili, Kanpur Nagar, Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Faizabad, Mirzapur & Sonebhadra.
4.	Litchi	Saharanpur, Muzzaffarnagar, Bulandshahar, Siddarth Nagar, Sant Kabir Nagar, Mahrajganj & Kushi Nagar
5.	Citrus/Bael/Ber	Mahamaya Nagar, Agra, Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Allahabad, Mirzapur & Sonebhadra.
6.	Banana	Moradabad, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Pratapgarh, Kaushambi, Allahabad, Barabanki, Faizabad, Sultanpur, Siddarth Nagar, Basti, Sant Kabir Nagar, Mahrajganj, Gorakhpur, Kushi Nagar, Ballia, Jaunpur & Varanasi.

S.No.	Crop	Clusters/Districts
Flowers		
1.	Cut Flower	Saharanpur, Muzzaffarnagar, Moradabad, Meerut, Ghaziabad, Bulandshahar, Mathura, Agra, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Kaushambi, Faizabad, Sultanpur, Ballia, Jaunpur, Ghazipur, Varanasi, Sant Ravidasnagar & Mirzapur.
2.	Bulbous Flower	Saharanpur, Muzzaffarnagar, Moradabad, Meerut, Ghaziabad, Bulandshahar, Mahamaya Nagar, Mathura, Agra, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Farrukhabad, Etawah, Kanpur Nagar, Kannauj, Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Kaushambi, Barabanki, Faizabad, Sultanpur, Sant Kabir Nagar, Gorakhpur, Ballia, Jaunpur, Ghazipur, Varanasi, Sant Ravidasnagar & Mirzapur.
3.	Loose Flower	Saharanpur, Muzzaffarnagar, Moradabad, Meerut, Ghaziabad, Bulandshahar, Mahamaya Nagar, Mathura, Agra, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Etawah, Kanpur Nagar, Kannauj, Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Kaushambi, Allahabad, Barabanki, Faizabad, Sultanpur, Siddarth Nagar, Basti, Sant Kabir Nagar, Gorakhpur, Kushi Nagar, Ballia, Jaunpur,, Varanasi, Sant Ravidasnagar & Mirzapur.
Spices		
1.	Chillies	All NHM disticts.
2.	Coriander	Kanpur Nagar, Kaushambi, Faizabad, Siddarth Nagar, Mahrajganj, Kushi Nagar & Ghazipur
3.	Turmeric	Saharanpur, Muzzaffarnagar, Moradabad, Ghaziabad, Bulandshahar, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Farrukhabad, Jhansi, Lalitpur, Jalaun, Chitrakoot, Pratapgarh, Kaushambi, Allahabad, Faizabad, Sultanpur, Siddarth Nagar, Sant Kabir Nagar, Mahrajganj, Gorakhpur, Kushi Nagar, Ballia, Ghazipur, Varanasi, Sant Ravidasnagar & Sonebhadra.
4.	Ginger	Ghaziabad, Jhansi, Lalitpur, Ghazipur, Sonebhadra & Sant Ravidas Nagar.
5.	Garlic	Saharanpur, Muzzaffarnagar, Moradabad, Meerut, Bulandshahar, Mahamaya Nagar, Mathura, Agra, Mainpuri, Bareilly, Sitapur, Unnao, Lucknow, Raebareili, Farrukhabad, Etawah, Kanpur Nagar, Kannauj, Jhansi, Lalitpur, Jalaun, Hamirpur, Mahoba, Banda, Chitrakoot, Pratapgarh, Kaushambi, Allahabad, Barabanki, Faizabad, Sultanpur, Siddarth Nagar, Basti, Sant Kabir Nagar, Gorakhpur, Kushi Nagar, Ballia, Jaunpur, Ghazipur, Varanasi, Sant Ravidasnagar, Mirzapur & Sonebhadra
Aromatic Plants		
1	Pachauli & Damask Rose	Basti, Moradabad, Mahamaya Nagar, Jalaun, Hamirpur, Mahoba, Banda, Faizabad & Ballia

Crop wise requirement of planting material:-

S. No.	Crop	Unit	Reqmt. (per ha.)	Proposed Target 2011-12 (ha)	No. of plants required (lac No.)
	H D Mango	Plants	400	55	0.22
	Mango	Plants	100	1650	1.65
1	Mango (total)			1705	1.87
	H D Guava	Plants	1111	78	0.87
	Guava	Plants	277	2105	5.83
2	Guava (total)			2183	6.70
3	Litchi	Plants	100	305	0.31
4	Aonla	Plants	100	775	0.78
5	Bael / Citrus / Ber	Plants	100	460	0.46
6	Banana (T.C)	Plants	3700	2550	94.35

SALIENT ASPECTS OF AAP-2011-12

The details of the component wise activities proposed to be taken up under the Mission and the pattern of assistance to be provided under the various activities in these three components are given below.

[A] PLANTATION, INFRASTRUCTURE & DEVELOPMENT

U.P. is a big state having more than 1100 private sector nurseries. The demand of quality planting material for NHM & other programmes, being run in the state, as per Gol norms, can be met by government units (state/central), and private sector nurseries except Banana (TC plants and Suckers) and Litchi, which will be arranged from nurseries/TC labs situated within and outside the states. Quality planting material is to be arranged primarily from the Departmental Government Nurseries, State Farm Corporation, CISH Lucknow, NBRI Lucknow, CIMAP Lucknow, IIVR Varanasi, NHRDF Nasik. Input management of planting material as per norms fixed by Gol is being ensured by constituting a technical committee to evaluate the planting material in identified private nurseries for supply of planting material. Those nurseries which are capable to supply a quality planting material according to Gol norms are only enlisted to supply the planting material. Quality standards are also checked at the time of supply by a technical team at DHM level.

(1) Production of Planting Materials (Plants/Seeds):

The main objective of this program is to produce and supply good quality planting materials to the farmers. It is therefore proposed to integrate the production of planting material through the establishment of nurseries including establishment of tissue culture units in public sector. It is, therefore, proposed to integrate the production of planting material through the establishment of model nurseries (2 to 4 ha.), small nurseries (1 ha.), establishment of Tissue culture units and vegetable & potato seed production in public and private sectors. Under this scheme, mission assistance will be provided which exclude cost of land, building and barbed wire fencing, which will be borne by the beneficiaries. The horticulture crops/varieties recommended by research institutions will mainly be multiplied in these nurseries. The research institutions of Gol and State Deptt. will provide breeder seeds and nucleus planting materials and mother plants. Proposed activities in 45 NHM districts and required assistance are as follows:

A- Production of planting material

S. No.	Activities	Estimated Cost	Proposed assistance	Target/Crops
a)	Public sector			
i	Model nursery (4 ha)	₹ 25.00 lakh/unit	100% cost limited to Rs 25.00 lakh/unit	(1 No) Mango, Guava, Litchi, Aonla, Ber/Bael/Citrus
ii	Small Nursery (1 ha.)	₹ 6.25 lakh/ unit	Maximum of Rs. 6.25 lakh per nursery	(2No.) Mango, Guava, Aonla, Bel/Citrus
iii	Estb. of new TC lab	₹ 100 lakh/unit	100% of total cost.	(1 No.) Banana
b)	Private sector		Credit linked back ended subsidy	
i	Model nursery (4 ha)	₹ 25.00 lakh/unit	50% of cost limited to Rs. 12.50 lakh per nursery	(10 No) Mango, Guava, Litchi, Aonla, Ber/Bael/Citrus
ii	Small Nursery (1 ha.)	₹ 6.25 lakh / unit	50% of cost limited to Rs. 3.125 lakh per nursery	(29 No.) Mango, Guava, Litchi, Aonla, Ber/Bael/Citrus

Districtwise Programmewise Summary :

(Phy : in Numbers; outlay in Lac ₹)

S. No.	DISTRICTS	Public Sector						Private Sector			
		Model Nursery		Small Nursery		New TC Unit		Model Nursery		Small Nursery	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur									2	6.25
2	Muzzaffarnagar									2	6.25
3	Meerut							2	25.00	2	6.25

S. No.	DISTRICTS	Public Sector						Private Sector			
		Model Nursery		Small Nursery		New TC Unit		Model Nursery		Small Nursery	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
4	Ghaziabad									2	6.25
5	Bulandshahar									1	3.13
6	Mahamaya Ngr									1	3.13
7	Lucknow	1	25.00								
8	Farrukhabad									2	6.25
9	Jhansi							2	25.00	2	6.25
10	Lalitpur							1	12.50	1	3.13
11	Jalaun							1	12.50	2	6.25
12	Mahoba							1	12.50	1	3.13
13	Banda									1	3.13
14	Chitrakoot							1	12.50	1	3.13
15	Pratapgarh			1	6.25						
16	Faizabad									1	3.13
17	Sultanpur									2	6.25
18	Mahrajganj									1	3.13
19	Gorakhpur							1	12.50		
20	Ghazipur									1	3.13
21	Varanasi									2	6.25
22	Head Quarter			1	6.25	1	100.00	1	12.50	2	6.25
Total		1	25.00	2	12.50	1	100.00	10	125.00	29	90.63
Grand Total						43 units		Rs. 353.13 lac			

B- Vegetable seed Production

S. No.	Activities	Estimated Cost	Proposed assistance	Target / crops
a)	Public Sector			
i	Vegetables -Foundation Seed Production. at Govt. Farms	₹ 50,000/ per ha.	100% of the total cost	Pea, Okra (151ha.) (23 districts)
ii	Potato -Foundation Seed Production at Govt. Farms	₹ 50,000/-per ha.	100% of the total cost	Potato Seed Production (150 ha.) (10 districts)
b)	Private Sector			
i	Vegetables - Certified Seed Prod. at beneficiary farmer's Fields	₹ 50,000/-per ha	50% of the total cost subject to maximum of Rs. 25000/- ha. limited to 5 ha.	Pea, Okra.(1722 ha.) (21 Districts)
ii	Potato - Certified Seed Prod. at beneficiary farmer's Fields	₹ 50,000/-per ha	50% of the total cost subject to maximum of Rs. 25000/- ha. limited to 5 ha.	Potato Seed Prod. (862 ha.) (19 districts)

(Phy : in ha ; outlay in Lac ₹)

S. No.	DISTRICTS	Public Sector				Private Sector				Total	
		Vegetable		Potato		Vegetable		Potato		Phy	Outlay
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay		
1	Saharanpur	2	1.00			10	2.50	15	3.75	27	7.25
2	Muzzaffarnagar	8	4.00	14	7.00	10	2.50	10	2.50	42	16.00
3	Moradabad	5	2.50	10	5.00			20	5.00	35	12.50
4	Meerut			30	15.00	50	12.50	180	45.00	260	72.50

S. No.	DISTRICTS	Public Sector				Private Sector				Total	
		Vegetable		Potato		Vegetable		Potato		Phy	Outlay
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay		
5	Ghaziabad	7	3.50	12	6.00	40	10.00	80	20.00	139	39.50
6	Bulandshahar	19	9.50	36	18.00	25	6.25	40	10.00	120	43.75
7	Mahamaya Nagar					10	2.50	40	10.00	50	12.50
8	Mathura			8	4.00			50	12.50	58	16.50
9	Agra	10	5.00	20	10.00			175	43.75	205	58.75
10	Mainpuri					15	3.75	20	5.00	35	8.75
11	Bareilly					25	6.25	30	7.50	55	13.75
12	Sitapur	7	3.50							7	3.50
13	Lucknow	2	1.00	3	1.50					5	2.50
14	Raebareili					10	2.50	20	5.00	30	7.50
15	Farrukhabad	5	2.50					50	12.50	55	15.00
16	Etawah					10	2.50	50	12.50	60	15.00
17	Kanpur Nagar	2	1.00					10	2.50	12	3.50
18	Kannauj	2	1.00			2	0.50			4	1.50
19	Jhansi	4	2.00			1050	262.50			1054	264.50
20	Jalaun	2	1.00			350	87.50			352	88.50
21	Hamirpur	4	2.00							4	2.00
22	Allahabad	8	4.00			10	2.50			18	6.50
23	Barabanki	3	1.50	12	6.00	10	2.50	20	5.00	45	15.00
24	Faizabad					15	3.75	2	0.50	17	4.25
25	Sultanpur	5	2.50			20	5.00	30	7.50	55	15.00
26	Basti	10	5.00					20	5.00	30	10.00
27	Mahrajganj	20	10.00			20	5.00			40	15.00
28	Gorakhpur					20	5.00			20	5.00
29	Kushi Nagar	15	7.50							15	7.50
30	Ballia	4	2.00							4	2.00
31	Jaunpur	2	1.00							2	1.00
32	Ghazipur	5	2.50	5	2.50					10	5.00
33	Mirzapur					10	2.50			10	2.50
34	Sonebhadra					10	2.50			10	2.50
Total		151	75.50	150	75.00	1722	430.50	862	215.50	2885	796.50

C- Seed Infrastructure

S. No.	Activities	Estimated Cost	Proposed assistance	Crops/ Varieties
i	Seed Infrastructure Public sector	Project based	100% of total cost	(1 No.; outlay ₹ 200 lac) HETC - Basti.
ii	Seed Infrastructure Private sector	Project based	25% of cost as credit linked back ended subsidy	Equipment & Infrastructure (1 No.; outlay ₹ 100 lac) Jhansi.

(2) Establishment of New Orchards

Under this programme, it is proposed to provide assistance to the farmers for expansion of suitable fruit crops identified for the specific zones. This includes the cost of improved planting material, planting, after care and for adoption of technologies involved in establishment and management of new gardens on scientific manner that includes intercropping also. This programme is based on the potentiality

of different crops in different regions, including diversification of certain crops from their traditional bases to the new areas where the potentiality has been ascertained. Assistance for cultivation of horticulture crops including intercropping is proposed (as per Gol norms) as under :

A- Fruits (Perennials)

Estimated Cost	Proposed assistance	Crops/ Varieties	Selected Areas
HD Mango (5x5) Rs. 80,000/ha.	75% of cost in 3 installment of 60:20:20 subject to survival rate of 75% in second year and 90% in 3rd year.	HD Mango (55 ha.)	Selected 4 districts and crop clusters of Mango fruit belt area.
HD Guava (3x3) Rs. 62,775/ha.		HD Guava (78 ha.)	Selected 7 districts and crop clusters of Guava fruit belt area.
Mango (10x10) Rs.22000/- ha.		Mango (1650 ha.)	Selected 34 districts and crop clusters of Mango fruit belt area
Guava (6x6) Rs.21950/- ha.		Guava (2105 ha.)	Selected 39 guava potential districts.
Aonla (6x6) Rs.23340/- ha.		Aonla (775 ha.)	Selected 18 aonla potential districts
Litchi (10x10) Rs.23500/- ha.		Litchi (305 ha.)	Selected 7 litchi potential districts.
Bael/Ber/Citrus (6x6) Rs.18950/- ha.		Bael/Ber/ Citrus (460 ha)	13 potential district of arid region viz. Bundelkhand & Vindhyan.

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	HD Mango		HD Guava		Mango		Litchi		Aonla		Guava		Bael/Citrus	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur					125	12.38	100	10.58			100	9.88		
2	Muzaffarnagar					100	9.90	100	10.58			50	4.94		
3	Moradabad					50	4.95			20	2.10	50	4.94		
4	Meerut	30	7.20	20	3.77										
5	Ghaziabad	5	1.20	5	0.94	20	1.98					20	1.98		
6	Bulandshahar					50	4.95	25	2.64			60	5.93		
7	Mahamaya Ngr					25	2.48			50	5.25	75	7.41	40	3.41
8	Mathura											50	4.94		
9	Agra									25	2.63	25	2.47	50	4.26
10	Mainpuri					20	1.98			25	2.63	75	7.41		
11	Bareilly					50	4.95					50	4.94		
12	Sitapur					50	4.95			10	1.05	20	1.98		
13	Unnao					150	14.85					125	12.35		
14	Lucknow	10	2.40	10	1.88	50	4.95					50	4.94		
15	Raebareilly					50	4.95			50	5.25	50	4.94		
16	Farrukhabad											150	14.82		
17	Etawah											75	7.41		
18	Kanpur Nagar					20	1.98			20	2.10	50	4.94		
19	Kannauj											100	9.88		
20	Jhansi									75	7.88	80	7.90	60	5.12
21	Lalitpur									75	7.88	75	7.41	60	5.12
22	Jalaun					100	9.90			75	7.88	75	7.41	50	4.26
23	Hamirpur					25	2.48			75	7.88	50	4.94	25	2.13
24	Mahoba					25	2.48			75	7.88	50	4.94	25	2.13
25	Banda					25	2.48			75	7.88	50	4.94	25	2.13
26	Chitrakoot					25	2.48			75	7.88	50	4.94	25	2.13
27	Pratapgarh					25	2.48			25	2.63	25	2.47	25	2.13
28	Kaushambi			5	0.94							50	4.94		
29	Allahabad			5	0.94							100	9.88	50	4.26
30	Barabanki					100	9.90					25	2.47		

S. No.	DISTRICTS	HD Mango		HD Guava		Mango		Litchi		Aonla		Guava		Bael/Citrus	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
31	Faizabad					50	4.95			10	1.05	10	0.99		
32	Sultanpur					25	2.48								
33	Siddarth Nagar					75	7.43	25	2.64			20	1.98		
34	Basti					100	9.90					50	4.94		
35	St Kabir Nagar					50	4.95	10	1.06						
36	Mahrajganj					40	3.96	20	2.12						
37	Gorakhpur					100	9.90					20	1.98		
38	Kushi Nagar					10	0.99	25	2.64						
39	Ballia					30	2.97					30	2.96		
40	Jaunpur					30	2.97					30	2.96		
41	Ghazipur	10	2.40	25	4.71	20	1.98					20	1.98		
42	Varanasi			8	1.51							50	4.94		
43	St Ravidasngar					10	0.99					20	1.98		
44	Mirzapur					20	1.98			10	1.05	50	4.94	20	1.71
45	Sonebhadra					5	0.50			5	0.53			5	0.43
Total		55	13.20	78	14.69	1650	163.35	305	32.25	775	81.40	2105	207.92	460	39.23
Grand Total										5428 ha			Rs. 552.04 Lacs		

B- Fruits (Non-Perennials)

Estimated Cost	Proposed assistance	Crops/ Varieties	Selected Areas
TC Banana ₹ 83,204/- per ha.	50% of cost in 2 installment of 75:25. (first & second year)	TC Banana (2550 ha.)	21 Banana potential districts of Tarai, East & Central U.P.

S. No.	DISTRICTS	Tissue Culture Banana	
		Phy (ha)	Outlay (Lac ₹)
1	Moradabad	20	6.24
2	Bareilly	20	6.24
3	Sitapur	75	23.40
4	Unnao	100	31.20
5	Lucknow	100	31.20
6	Raebareilly	150	46.80
7	Pratapgarh	50	15.60
8	Kaushambi	250	78.01
9	Allahabad	100	31.20
10	Barabanki	100	31.20
11	Faizabad	100	31.20
12	Sultanpur	200	62.40
13	Siddarth Nagar	150	46.80
14	Basti	100	31.20
15	St Kabir Nagar	250	78.01
16	Mahrajganj	250	78.01
17	Gorakhpur	250	78.01
18	Kushi Nagar	200	62.40
19	Ballia	50	15.60
20	Jaunpur	10	3.12
21	Varanasi	25	7.80
Total		2550	795.64

C- Flowers (For a maximum of 2 ha. per beneficiary)

S. No.	Activities	Estimated Cost	Proposed assistance	Crops/ Varieties	Identified districts
a)	Cut flowers- Rose/ Tuberose/Garbera				
	SMF	₹ 70,000/- per ha	50% of the cost @ Rs. 35,000/- per ha	(585 ha)	23 Districts
	Other farmers	₹ 70,000/- per ha	33% of the cost @ Rs. 23,100/- per ha	(179 ha)	15 Districts
b)	Bulbous Flowers				
	SMF	₹ 90,000/- per ha	50% of the cost @ Rs. 45,000/- per ha	Gladiolus (715 ha.)	33 Districts
	Other farmers	₹ 90,000/- per ha	33% of the cost @ Rs. 29,700/- per ha.	Gladiolus (270 ha.)	31 Districts
c)	Loose Flowers-Marigold/Desi Rose/Jasmine				
	SMF	₹ 24,000/- per ha	50% of the cost @ Rs. 12,000/- per ha	(1079 ha.)	41 Districts
	Other farmers	₹ 24,000/- per ha	33% of the cost @ Rs. 7,920/- per ha.	(445 ha.)	27 Districts

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	Cut Flowers				Bulbous Flowers				Loose Flowers			
		SMF		Others		SMF		Others		SMF		Others	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	30	10.50	10	2.31	35	15.75	15	4.46	15	1.80	10	0.79
2	Muzzaffarnagar	25	8.75	10	2.31	30	13.50	20	5.94	20	2.40	5	0.40
3	Moradabad	15	5.25	4	0.92	10	4.50	5	1.49	20	2.40		
4	Meerut	50	17.50	25	5.78	40	18.00	25	7.43	40	4.80		
5	Ghaziabad	60	21.00			70	31.50	20	5.94	50	6.00		
6	Bulandshahar	20	7.00			30	13.50	10	2.97	50	6.00		
7	Mahamaya Ngr					20	9.00	5	1.49	40	4.80		
8	Mathura	50	17.50	50	11.55	20	9.00			80	9.60	75	5.94
9	Agra	25	8.75			20	9.00			50	6.00		
10	Mainpuri	10	3.50	5	1.16	10	4.50	5	1.49	10	1.20	5	0.40
11	Bareilly	30	10.50			25	11.25	5	1.49	20	2.40		
12	Sitapur	15	5.25	5	1.16	10	4.50	5	1.49	5	0.60	5	0.40
13	Unnao	30	10.50			25	11.25	5	1.49	50	6.00		
14	Lucknow	25	8.75	10	2.31	50	22.50	20	5.94	25	3.00	10	0.79
15	Raebareili	40	14.00	10	2.31	25	11.25	5	1.49	30	3.60	10	0.79
16	Farrukhabad					25	11.25	5	1.49				
17	Etawah					10	4.50	5	1.49	10	1.20	5	0.40
18	Kanpur Nagar					10	4.50	10	2.97	50	6.00	10	0.79
19	Kannauj					45	20.25	5	1.49	45	5.40	10	0.79
20	Jhansi					5	2.25	10	2.97	30	3.60	30	2.38
21	Lalitpur							5	1.49	30	3.60	30	2.38
22	Jalaun							5	1.49	10	1.20	20	1.58
23	Hamirpur							5	1.49	25	3.00	30	2.38
24	Mahoba							5	1.49	29	3.48	40	3.17
25	Banda							10	2.97	15	1.80	20	1.58
26	Chitrakoot							10	2.97	20	2.40	30	2.38
27	Pratapgarh					15	6.75	10	2.97	20	2.40		
28	Kaushambi	25	8.75	5	1.16	20	9.00	5	1.49	25	3.00	5	0.40

S. No.	DISTRICTS	Cut Flowers				Bulbous Flowers				Loose Flowers				
		SMF		Others		SMF		Others		SMF		Others		
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	
29	Allahabad									60	7.20	20	1.58	
30	Barabanki					10	4.50			5	0.60	5	0.40	
31	Faizabad	10	3.50			10	4.50			10	1.20	5	0.40	
32	Sultanpur	20	7.00	5	1.16	25	11.25	10	2.97	25	3.00	10	0.79	
33	Siddarth Nagar									10	1.20	10	0.79	
34	Basti									20	2.40			
35	St Kabir Nagar					5	2.25			10	1.20			
36	Gorakhpur					20	9.00			10	1.20	15	1.19	
37	Kushi Nagar									10	1.20	5	0.40	
38	Ballia	25	8.75	10	2.31	15	6.75	5	1.49	20	2.40			
39	Jaunpur	10	3.50			10	4.50			15	1.80	5	0.40	
40	Ghazipur	20	7.00	10	2.31	20	9.00	5	1.49					
41	Varanasi	30	10.50	15	3.47	30	13.50	10	2.97	40	4.80	20	1.58	
42	St Ravidasngar	10	3.50			10	4.50			10	1.20			
43	Mirzapur	10	3.50	5	1.16	10	4.50	5	1.49	20	2.40			
Total		585	204.75	179	41.35	715	321.75	270	80.19	1079	129.48	445	35.24	
Grand Total								3273 ha			Rs. 812.76 Lacs			

D- Spices (Chillies, Coriander, Turmeric, Ginger, Garlic)- for maximum of 4 ha. per beneficiary.

S. No.	Activities	Estimated Cost	Proposed assistance	Crops/ Varieties	Identified districts
i	Seed Spices	₹ 25,000/- per ha	50% of cost subject to a max. of Rs. 12,500 /- ha	Chillies (1875 ha.) Coriander (155 ha.)	45 districts 07 districts.
ii	Rhizomatic Spices	₹ 25,000/- per ha	50% of cost subject to a max. of Rs. 12,500 /- ha	Turmeric (1180 ha.) Ginger (150 ha.) Garlic (2160 ha.)	30 districts 06 districts 43 districts

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	Seed Spices				Rhizomatic Spices					
		Chillies		Coriander		Turmeric		Ginger		Garlic	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	10	1.25			50	6.25			25	3.13
2	Muzzaffarnagar	10	1.25			10	1.25			25	3.13
3	Moradabad	30	3.75			50	6.25			30	3.75
4	Meerut	40	5.00							25	3.13
5	Ghaziabad	30	3.75			50	6.25	50	6.25		
6	Bulandshahar	30	3.75			50	6.25			25	3.13
7	Mahamaya Ngr	35	4.38							40	5.00
8	Mathura	75	9.38							75	9.38
9	Agra	60	7.50							60	7.50
10	Mainpuri	50	6.25			25	3.13			175	21.88
11	Bareilly	60	7.50			50	6.25			60	7.50
12	Sitapur	25	3.13			10	1.25			25	3.13
13	Unnao	25	3.13			50	6.25			25	3.13
14	Lucknow	50	6.25			20	2.50			50	6.25
15	Raebareili	25	3.13			20	2.50			25	3.13
16	Farrukhabad	50	6.25			25	3.13			75	9.38

S. No.	DISTRICTS	Seed Spices				Rhizomatic Spices					
		Chillies		Coriander		Turmeric		Ginger		Garlic	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
17	Etawah	75	9.38							300	37.50
18	Kanpur Nagar	25	3.13	25	3.13					75	9.38
19	Kannauj	75	9.38							200	25.00
20	Jhansi	50	6.25			40	5.00	30	3.75	50	6.25
21	Lalitpur	50	6.25			40	5.00	30	3.75	30	3.75
22	Jalaun	50	6.25			80	10.00			20	2.50
23	Hamirpur	60	7.50							40	5.00
24	Mahoba	60	7.50							40	5.00
25	Banda	50	6.25							40	5.00
26	Chitrakoot	50	6.25			40	5.00			30	3.75
27	Pratapgarh	20	2.50			25	3.13			25	3.13
28	Kaushambi	30	3.75	15	1.88	50	6.25			30	3.75
29	Allahabad	60	7.50			75	9.38			60	7.50
30	Barabanki	10	1.25							25	3.13
31	Faizabad	10	1.25	15	1.88	20	2.50			25	3.13
32	Sultanpur	50	6.25			10	1.25			50	6.25
33	Siddarth Nagar	50	6.25	30	3.75	30	3.75			50	6.25
34	Basti	50	6.25							50	6.25
35	St Kabir Nagar	100	12.50			40	5.00			25	3.13
36	Mahrajganj	50	6.25	30	3.75	40	5.00				
37	Gorakhpur	75	9.38			75	9.38			40	5.00
38	Kushi Nagar	20	2.50	30	3.75	60	7.50			20	2.50
39	Ballia	20	2.50			50	6.25			20	2.50
40	Jaunpur	40	5.00							40	5.00
41	Ghazipur	40	5.00	10	1.25	40	5.00	10	1.25	50	6.25
42	Varanasi	40	5.00			25	3.13			25	3.13
43	St Ravidasnagar	10	1.25			20	2.50	20	2.50	10	1.25
44	Mirzapur	25	3.13							25	3.13
45	Sonebhadra	25	3.13			10	1.25	10	1.25	25	3.13
Total		1875	234.38	155	19.38	1180	147.50	150	18.75	2160	270.00
Grand Total						5520 ha			Rs. 690.00 Lacs		

E- Aromatic Plants - for maximum of 4 ha. per beneficiary

S. No.	Activities	Estimated Cost	Proposed assistance	Crops/ Varieties	Area
a)	Aromatic Plants	₹ 75,000/- ha (average)	50% of cost subject to a maximum of Rs. 37,500 /-ha	Patchouli (40 ha.)	Basti
b)	Damask Rose	₹ 25,000/- per ha	50% of cost subject to a maximum of Rs. 12,500/- ha	Damask Rose (255 ha.)	8 Districts

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	Pachauli		Damask Rose	
		Phy	Outlay	Phy	Outlay
1	Moradabad			10	1.25
2	Mahamaya Ngr			50	6.25
3	Jalaun			30	3.75
4	Hamirpur			35	4.38
5	Mahoba			35	4.38
6	Banda			40	5.00

S. No.	DISTRICTS	Pachauli		Damask Rose	
		Phy	Outlay	Phy	Outlay
7	Faizabad			5	0.63
8	Ballia			50	6.25
9	Basti	40	15.00		
Total		40	15.00	255	31.88
Grand Total		295 ha		Rs. 46.88 Lacs	

(3) Maintenance of orchards

SHM has focus to maintain the orchards established during previous years. This needs to coordinate with beneficiary farmers to ensure the gap fillings of fruit plants with necessary horticultural inputs. Keeping the view, this is proposed to have 7825 ha IInd year maintenance and 10952 ha IIIrd year maintenance of perennial and non-perennial fruit orchards with a total outlay of Rs. 668.45 Lacs.

(4) Rejuvenation of old / senile orchards

The rejuvenation of old and unproductive mango, guava and aonla orchards is proposed in the selected districts to improve the productivity of major fruit crops. Farmers are being provided with necessary inputs such as operational cost involved in rejuvenation, pesticides and trace elements with a maximum of 2.0 ha area per beneficiary as project assistance @ 50% of cost subject to a maximum of Rs. 15,000 /- per ha. The technology adopted is as per CISH recommendations.

Programme	Estimated Cost	Proposed assistance	Crops/ Varieties	Selected Areas
Rejuvenation of old and senile orchards	₹ 30000/- per ha.	50% of cost subject to a max. of Rs. 15,000/- per ha. limited to 2 ha. per beneficiary.	Mango (1450 ha.) Guava (545 ha.) Aonla (330 ha.)	23 districts 22 districts 07 districts

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	Mango		Guava		Aonla	
		Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	100	15.00	50	7.50		
2	Muzzaffarnagar	100	15.00	10	1.50		
3	Moradabad	10	1.50	5	0.75		
4	Meerut	100	15.00				
5	Ghaziabad	75	11.25				
6	Bulandshahar	150	22.50	50	7.50		
7	Mahamaya Ngr			25	3.75		
8	Mainpuri			50	7.50		
9	Bareilly	100	15.00				
10	Sitapur	50	7.50	10	1.50		
11	Unnao	100	15.00	50	7.50		
12	Lucknow	100	15.00				
13	Raebareili	100	15.00			25	3.75
14	Farrukhabad			50	7.50		
15	Kanpur Nagar			50	7.50		
16	Jhansi			10	1.50	5	0.75
17	Hamirpur					5	0.75
18	Mahoba					10	1.50
19	Banda			10	1.50	10	1.50
20	Pratapgarh	25	3.75	15	2.25	255	38.25
21	Kaushambi	10	1.50	50	7.50	20	3.00
22	Barabanki	20	3.00				
23	Faizabad	150	22.50	5	0.75		

S. No.	DISTRICTS	Mango		Guava		Aonla	
		Phy	Outlay	Phy	Outlay	Phy	Outlay
24	Sultanpur	10	1.50	5	0.75		
25	Siddarth Nagar	50	7.50	10	1.50		
26	Mahrajganj	30	4.50				
27	Gorakhpur	60	9.00	10	1.50		
28	Kushi Nagar	50	7.50				
29	Ballia	30	4.50	10	1.50		
30	Ghazipur	10	1.50	10	1.50		
31	Varanasi	20	3.00	50	7.50		
32	Mirzapur			10	1.50		
Total		1450	217.50	545	81.75	330	49.50
Grand Total		2325 ha			Rs. 348.75 Lacs		

(5) Integrated Development of Mushroom

The DAC, GOI has been instrumental in popularizing mushroom cultivation in many states particularly for creating infrastructure facilities for spawn production and pasteurized compost. Many farmers have been trained in acquiring skills needed for spawn production and mushroom cultivation. However, two major constraints are continued to be faced by the farmers are (a) poor handling, affecting quality and (b) lack of marketing facilities. On account of these two persistent problems, mushroom farmers face losses due to highly perishable nature of the produce. Therefore the emphasis was given on integrated development of mushroom, which would involve (i) Strengthening the existing facilities of spawn production, and pasteurized compost units and (ii) Accelerated efforts for training to increase the availability of entrepreneurs in this sector. Under this, the pattern of assistance will be 100% for public sector and 50% assistance for private sector :-

S. No.	Programme	Estimated Cost	Proposed assistance	Target/ Crops	elected Areas
i	Integrated Mushroom unit for Spawn, Compost production & training (Private Sector)	₹ 50 lakh/ unit	50% of total cost in the form of credit linked back ended subsidy	1 (No.)	Agra
ii	Spawn Making Unit (Public Sector)	₹ 15 lakh/ unit	100% of total cost	2 (No.)	Basti & other identified district
iii	Compost making unit (Public Sector)	₹ 20 lakh/ unit	100% of total cost	1 (No.)	ND University of Agriculture & Technology, Faizabad
Grand Total		4 Units		₹ 75.00 Lacs	

(6) Creation of Water resources sources

Under this component, it is proposed to provide assistance for the construction of community tanks, on farm ponds/farm water reservoir with use of plastics @ Rs. 15.00 lakh per unit up to a maximum limit of 10 hectares command area. This will be implemented in conjunction with MNREGA.

S. N.	Programme	Estimated Cost	Proposed assistance	Target	Selected Areas
i	Community Tank (100x100x3 mtr) or any other size.	₹ 15.00 lakh/ unit	100% of cost subject to a max. of Rs.15.00 lakh per unit limited to 10 ha. per beneficiary.	49 (No.)	12 Districts
ii	Water harvesting system for individuals (20x20x3 mtr)	₹ 1.20 lakh/ unit	50% of the cost. Maintenance will be ensure by the beneficiary.	111 (No.)	15 Districts

S. No.	DISTRICTS	Community Tank		Harvesting System	
		Phy (No)	Outlay (Lac ₹)	Phy (No)	Outlay (Lac ₹)
1	Meerut			2	1.20
2	Ghaziabad	1	15.00		
3	Sitapur			2	1.20
4	Unnao			1	0.60
5	Kanpur Nagar			2	1.20
6	Jhansi	7	105.00	60	36.00
7	Lalitpur	5	75.00		
8	Jalaun	8	120.00	5	3.00
9	Hamirpur	5	75.00		
10	Mahoba	6	90.00	7	4.20
11	Banda	7	105.00	7	4.20
12	Chitrakoot	5	75.00		
13	Pratapgarh	1	15.00	2	1.20
14	Faizabad			2	1.20
15	Sultanpur			2	1.20
16	Gorakhpur	1	15.00		
17	Ballia	2	30.00		
18	Ghazipur			2	1.20
19	Varanasi			2	1.20
20	Mirzapur			10	6.00
21	Sonebhadra	1	15.00	5	3.00
Total		49	735.00	111	66.60
Grand Total		160 No.		Rs. 801.60 Lacs	

(7) Protected Cultivation

i. Green House (Naturally ventilated system)

Green houses (tubular structure) in 13 selected districts- Saharanpur, Muzaffarnagar, Moradabad, Meerut, Ghaziabad, Bulandshahar, Unnao, Lucknow, Etawah, Pratapgarh, Kaushambi, Faizabad, Varanasi and may be extended in other potential areas of the NHM districts are proposed to be erected in 144000 sq.m. (14.40 ha.) to produce high value vegetables and flowers under favourable environmental conditions. The production of high value horticultural crops like flowers & vegetables in green houses will certainly enhance the competitiveness in the domestic market and exports. The assistance proposed is @ 50% of cost subject to a maximum of Rs. 467.50/- per sqm for naturally ventilated tubular structure, limited to 1000 sqm per beneficiary. These units will be promoted in clusters and contiguous areas to facilitate the marketing of the produce.

ii. Plastic Mulching

Plastic mulching material will be provided to the beneficiaries of high density mango and guava programme for 725 ha. in 14 districts with the 50% of the total cost limited to 2 ha. per beneficiary i.e. Rs. 10,000/- per ha.

ii. Shade net

Shade net house with tubular structure are proposed in 66500 sq.mtrs. in 15 districts with 50% of the cost, Rs. 300/- per sq.m. limited to 1000 sq.m. per beneficiary. The selected districts are : Saharanpur, Muzaffarnagar, Meerut, Ghaziabad, Bulandshahar, Unnao, Raebareilly, Jhansi, Lalitpur, Chitrakoot, Faizabad, Sultanpur, Gorakhpur, Varanasi and Mirzapur.

iii. Plastic Tunnel

To promote the production of off season, healthy/disease and insect free saplings in the state, promotion of plastic tunnel is proposed with an assistance of 50% of cost subject to a maximum of Rs. 15/- per sq.m. The total proposed target is 5500 sq.m in 6 districts.

iv. Cost of planting material

Cost of planting material of high value vegetables and flowers grown in poly houses is also proposed with 50% of the cost limited to 500 sq.m. per beneficiary.

(Phy in sq. mtr; outlay in Lac ₹)

S. No.	DISTRICTS	Green House		Mulching		Shade Net		Plast. Tunnel		HV-Vegetable		HV-Flowers	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	4000	18.700			4000	12.00			2000	1.0500	2000	5.000
2	Muzzaffarnagar	5000	23.375			1000	3.00			2500	1.3125	500	1.250
3	Moradabad	5000	23.375							2000	1.0500	500	1.250
4	Meerut	15000	70.125			2000	6.00			5000	2.6250	3500	8.750
5	Ghaziabad	10000	46.750	20	2.00	10000	30.00			5000	2.6250	5000	12.500
6	Bulandshahar	10000	46.750			5000	15.00			5000	2.6250	2500	6.250
7	Mainpuri			50	5.00								
8	Sitapur			50	5.00			500	0.075				
9	Unnao	10000	46.750			10000	30.00			5000	2.6250	5000	12.500
10	Lucknow	10000	46.750							2500	1.3125	2500	6.250
11	Raebareili					1000	3.00			250	0.1313	250	0.625
12	Farrukhabad			10	1.00								
13	Etawah	1000	4.675							250	0.1313	250	0.625
14	Jhansi			50	5.00	4000	12.00	1000	0.150	1000	0.5250	1000	2.500
15	Lalitpur			20	2.00	4000	12.00	500	0.075	1000	0.5250	1000	2.500
16	Jalaun			100	10.00			500	0.075				
17	Chitrakoot			25	2.50	3500	10.50	1000	0.150	1000	0.5250	750	1.875
18	Pratapgarh	3000	14.025	50	5.00					1000	0.5250	500	1.250
19	Kaushambi	5000	23.375							1500	0.7875	1000	2.500
20	Allahabad			50	5.00								
21	Faizabad	2000	9.350			2000	6.00	2000	0.300	1000	0.5250	1000	2.500
22	Sultanpur			50	5.00	4000	12.00			1000	0.5250	1000	2.500
23	Mahrajganj			100	10.00								
24	Gorakhpur			50	5.00	2000	6.00			500	0.2625	500	1.250
25	Jaunpur			100	10.00								
26	Varanasi	4000	18.700			4000	12.00			2000	1.0500	2000	5.000
27	Mirzapur					10000	30.00			2500	1.3125	2500	6.250
28	Head Quarter	60000	280.500							15000	7.8750	15000	37.500
Total		144000	673.20	725	72.50	66500	199.50	5500	0.83	57000	29.93	48250	120.63
Grand Total										Rs. 1096.58 Lacs			

(8) Promotion of INM /IPM

Promotion of IPM/INM in 2031 ha. is proposed in selected district as per districtwise Annual Action Plan for following activities. The IPM/INM targets proposed in the plan are need based and crop specific as indicated from the table given below :-

S. No.	Crop	IPM/INM package for identified problem/pest/ diseases
1.	Mango	Mango Hopper, Mango Mealybug, Powdery mildew, anthranose.
2.	Guava	Guava wilt, Fruit Borer
3.	Banana	Banana beetle, Banana Weevil
4.	Tomato	Fruit borer
5.	Brinjal	Fruit Borer
6.	Okra	Pod Borer
7.	Cobe crops (cauliflower, cabbage)	Hairy caterpillar
8.	Cucurbits	Pumpkin fruit fly, red pumpkin beetle.
9.	Capsicum/chillies	Pod borer, bacterial wilt

Beneficiaries will be assisted in use of IPM tools like : Alkathene sheet, trichoderma, Viveiria Basiana, Psuedomonas, Methyle Uginol, Ferro Mone traps, NPV, BT, Trico cards and other essential Biopesticides.

Indiscriminate uses of chemical fertilizers & pesticides adversely affect natural flora & fauna, resurgence, outbreak of harmful pests, residues in fruits and vegetables. To overcome such constraints, IPM is a major tool to manage the pest population below economic threshold level (ETL). Under this component, it is proposed to promote Integrated Nutrient Management/Integrated Pest Management practices in the gardens to improve the soil fertility, productivity and also the quality of the produce. In order to promote the above concept, it is proposed to provide assistance for promotion of IPM/INM in fruits and vegetables, setting up of disease forecasting units and Plant health clinics in the state under existing scheme of SHM. Under this programme, required assistance and selected districts are as follows :

Program	Estimated Cost	Proposed assistance	Proposed target	Selected Areas
Promotion of INM /IPM	₹ 2000/- per ha.	50% of cost subject to a max. of Rs 1,000 /- ha. limited to 4 ha per beneficiary.	Fruits & Vegetables (2031 ha)	22 Districts
Disease forecasting unit (Public Sector)	₹ 4 Lakh/unit	100% as project based	1 (No.)	Basti
Plant Health Clinic (Public Sector)	₹ 20 Lakh/unit	100% as project based	2 (No.)	Basti & Saharanpur
Grand Total		2031 ha + 3 Units	₹ 64.31 Lacs	

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	IPM/INM		S. No.	DISTRICTS	IPM/INM	
		Phy	Outlay			Phy	Outlay
1	Saharanpur	100	1.00	12	Mahoba	1	0.01
2	Meerut	100	1.00	13	Banda	100	1.00
3	Ghaziabad	100	1.00	14	Chitrakoot	130	1.30
4	Bulandshahar	75	0.75	15	Faizabad	50	0.50
5	Bareilly	100	1.00	16	Sultanpur	100	1.00
6	Unnao	75	0.75	17	St Kabir Nagar	100	1.00
7	Kannauj	100	1.00	18	Gorakhpur	100	1.00
8	Jhansi	200	2.00	19	Ghazipur	75	0.75
9	Lalitpur	100	1.00	20	St Ravidasnagar	75	0.75
10	Jalaun	100	1.00	21	Mirzapur	75	0.75
11	Hamirpur	100	1.00	22	Sonebhadra	75	0.75
Total						2031	20.31

(9) Organic Farming

i. Adoption of organic farming

Programme of organic adoption in 1750 ha. of fruits & vegetables is planned to be executed in all 6 districts of Bundelkhand Region of the State.

ii. Certification

An area of 35 cluster of Bundelkhand region is proposed to be covered under organic certification during 2011-12.

iii. Promotion of Vermi Compost/HDPE Units

In addition, 644 vermi compost (permanent structure 30x8x2.5 = 600 cu.ft.) units will also be provided for better recycling of bio-degradable organic wastes and maximum application of organic manure in the horticulture crops. In this component, it is proposed to provide 50% assistance of the cost subject to a maximum of Rs. 30,000/- per unit. 556 HDPE vermi-bed (12x4x2 = 96 cu.ft.) will also be established with 50% assistance max. Rs.5000/- per unit.

S. No.	DISTRICTS	Adoption lyr		Organic Certific.		Vermi Compost		HDPE Vermi Bed	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur							50	2.50
2	Meerut					20	6.00		
3	Ghaziabad					50	15.00		
4	Bulandshahar					30	9.00		
5	Mahamaya Ngr					10	3.00		
6	Mathura					10	3.00		
7	Mainpuri					10	3.00	10	0.50
8	Bareilly					30	9.00	40	2.00
9	Sitapur							30	1.50
10	Unnao					30	9.00		
11	Raebareili					10	3.00	20	1.00
12	Jhansi	250	10.00	5	7.50	29	8.70	26	1.30
13	Lalitpur	250	10.00	5	7.50	9	2.70	26	1.30
14	Jalaun	250	10.00	5	7.50	4	1.20	6	0.30
15	Hamirpur					10	3.00	10	0.50
16	Mahoba	500	20.00	10	15.00	13	3.90	42	2.10
17	Banda	250	10.00	5	7.50	5	1.50	5	0.25
18	Chitrakoot	250	10.00	5	7.50	49	14.70	26	1.30
19	Pratapgarh					30	9.00		
20	Kaushambi					30	9.00		
21	Allahabad					30	9.00		
22	Faizabad					5	1.50	5	0.25
23	Basti					20	6.00	20	1.00
24	St Kabir Nagar					5	1.50	10	0.50
25	Mahrajanj					10	3.00	20	1.00
26	Gorakhpur					50	15.00	40	2.00
27	Kushi Nagar					50	15.00	50	2.50
28	Ballia					20	6.00	20	1.00
29	Jaunpur					30	9.00	50	2.50
30	Ghazipur					10	3.00	20	1.00
31	Varanasi					20	6.00	20	1.00
32	St Ravidasnagar					10	3.00	10	0.50
33	Mirzapur					5	1.50		
Total		1750	70.00	35	52.50	644	193.20	556	27.80
Grand Total							Rs. 343.50 Lacs		

(10) Pollination support through bee-keeping

To support the pollination in horticultural crops for increasing crop yield and finally productivity of the state, it is proposed to provide bee-colonies with hives to farmers and unemployed rural youth in potential mission districts. In addition to pollination support it will also uplift the economic condition of rural and landless people. Under this programme, the targets and the pattern of assistance is given below:-

S. N.	Program	Estimated Cost	Proposed assistance	Crops/ Varieties	Selected Areas
I	Distribution of colonies	₹ 1400/- per colony of four frames	50% of cost subject to a max. of Rs.700/- per colony of four frames	Italian bees (8970No.)	28 Districts
II	Hives	₹ 1600/- per hive, 50 colonies per hive	50% of cost subject to a max. of Rs.800/- per hive	(8970 No.)	
III	Equipments including honey extractor (4 frams) Food grade container (30 kg.), Net etc.	₹ 14000/- per set.	50% of cost subject to a max. of Rs.7000/- per set	(201 No.)	

(Area in ha; outlay in lac ₹)

S. No.	DISTRICTS	Bee Colonies		Bee Hives		Honey Equipment	
		Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	1900	13.30	1900	15.20	38	2.66
2	Moradabad	200	1.40	200	1.60	4	0.28
3	Meerut	300	2.10	300	2.40	6	0.42
4	Ghaziabad	100	0.70	100	0.80	2	0.14
5	Bulandshahar	500	3.50	500	4.00	10	0.70
6	Mathura	1000	7.00	1000	8.00	20	1.40
7	Agra	200	1.40	200	1.60	4	0.28
8	Mainpuri	50	0.35	50	0.40	1	0.07
9	Bareilly	500	3.50	500	4.00	10	0.70
10	Farrukhabad	100	0.70	100	0.80	2	0.14
11	Kanpur Nagar	250	1.75	250	2.00	5	0.35
12	Jhansi	200	1.40	200	1.60	20	1.40
13	Hamirpur	20	0.14	20	0.16	2	0.14
14	Mahoba	50	0.35	50	0.40	5	0.35
15	Pratapgarh	100	0.70	100	0.80	2	0.14
16	Kaushambi	300	2.10	300	2.40	6	0.42
17	Allahabad	1000	7.00	1000	8.00	20	1.40
18	Barabanki	500	3.50	500	4.00	10	0.70
19	Faizabad	500	3.50	500	4.00	10	0.70
20	Sultanpur	500	3.50	500	4.00	10	0.70
21	Basti	100	0.70	100	0.80	2	0.14
22	St Kabir Nagar	100	0.70	100	0.80	2	0.14
23	Gorakhpur	100	0.70	100	0.80	2	0.14
24	Kushi Nagar	50	0.35	50	0.40	1	0.07
25	Jaunpur	100	0.70	100	0.80	2	0.14
26	Varanasi	100	0.70	100	0.80	2	0.14
27	St Ravidasnagar	100	0.70	100	0.80	2	0.14
28	Mirzapur	50	0.35	50	0.40	1	0.07
Total		8970	62.79	8970	71.76	201	14.07
Grand Total		8970 bee colonies & hives and 201 equipment				Rs. 148.62 Lacs	

(11) Horticulture Mechanization

Following machines are proposed to be given to the individual beneficiaries/farmers associations:-

S.No.	Category	Identified Machines/Equipments
1.	Category-I Power operated machines/Tools including power saw and plant protection equipments etc.	1. Power Chain saw (Electrical/Solar/Diesel etc.) 12" to 14" 2. Long Reach Power Saw/Pruner (Electrical/ Engine) 12" to 14" Blade 3. Long Reach Pruner Multi Power 12 feet 4. Back Pack Power Sprayer (10-15 lit.) 5. Tractor mounted power sprayer 6. Power rotary cutter 7. Banana bunch remover
2.	Category-II Power machines (up to 20 bhp with rotavator)	1. Power Tiller 05-18 bhp 2. Tractor (Garden) 18-20 bhp 3. Aero Blast Power Sprayer (400 lit.) 4. Tripping trolley
3.	Category-III Power machines (20 hp and above including accessories/equipments)	1. Post hole digger (45-60 cm dia) 2. Shrub Master/Grass slasher (30-35 bhp attachment) 3. Laser Leveller (30 bhp and more) 4. Offset Disc-harrow (30 bhp attachment and more) 5. Potato digger (30 bhp attachment and more) 6. Potato planter (30 bhp attachment and more) 7. Ground nut Digger (30 bhp attachment and more) 8. Chiesel plough (30 bhp attachment and more) 9. Rotavator 10. Vegetable planter 11. Harvester (Fruits and Vegetables) 12. Self propelled fruit picking

S. No.	Program	Estimated Cost	Proposed assistance	Target (No)	Selected Areas
a	Power operated machines/Tools including power saw and plant protection equipments etc.	₹ 35000/- set	50% of cost limited to one set per beneficiary maximum Rs. 17500/-	81	30 districts
b	Power machines (up to 20 bhp with rotavator)	₹ 120000/ set	50% of cost limited to one set per beneficiary maximum Rs. 60000/-	91	
c.	Power machines (20 hp and above including accessories/equipments)	₹ 300000/ set	50% of cost limited to one set per beneficiary max. Rs. 1,50,000/-	58	

(Phy in numbers; outlay in Lac ₹)

S. No.	DISTRICTS	Power operated machines		Power machines (up to 20 bhp)		Power machines (20 hp & above)	
		Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	20	3.500	10	6.000	5	7.500
2	Moradabad			2	1.200		
3	Meerut			4	2.400		
4	Ghaziabad	5	0.875	2	1.200		
5	Bulandshahar	6	1.050	4	2.400		
6	Bareilly	1	0.175	2	1.200	2	3.000

S. No.	DISTRICTS	Power operated machines		Power machines (up to 20 bhp)		Power machines (20 hp & above)	
		Phy	Outlay	Phy	Outlay	Phy	Outlay
7	Sitapur			2	1.200	1	1.500
8	Unnao	5	0.875	1	0.600		
9	Lucknow	5	0.875	2	1.200	5	7.500
10	Raebareili	2	0.350	2	1.200	1	1.500
11	Farrukhabad			10	6.000		
12	Kanpur Nagar	5	0.875			3	4.500
13	Jhansi			5	3.000	5	7.500
14	Lalitpur			6	3.600	4	6.000
15	Jalaun			5	3.000	2	3.000
16	Hamirpur			4	2.400	4	6.000
17	Mahoba			4	2.400	4	6.000
18	Banda			1	0.600	1	1.500
19	Chitrakoot			5	3.000	4	6.000
20	Pratapgarh	2	0.350	2	1.200	1	1.500
21	Barabanki	2	0.350	1	0.600	1	1.500
22	Faizabad	2	0.350	2	1.200	1	1.500
23	Sultanpur			5	3.000	1	1.500
24	Siddarth Nagar	5	0.875			3	4.500
25	Basti			2	1.200	1	1.500
26	St Kabir Nagar	5	0.875	2	1.200		
27	Mahrajganj	2	0.350				
28	Kushi Nagar	5	0.875				
29	Ghazipur	5	0.875	5	3.000	5	7.500
30	Varanasi	4	0.700	1	0.600	4	6.000
Total		81	14.18	91	54.60	58	87.00
Grand Total				230 No.		Rs. 155.78 Lacs	

(12) Technology dissemination through demonstration/front line demonstration (FLD)

An approach consists end to end as a complete package from commodity cultivation to consumer consumption, which consist the status of soil, proper seed sowing method, irrigation management, crop management and post harvest management by using organic & bio agent for healthy, clean production and assure marketing for good remunerative returns are proposed to execute under Technology Dissemination through Demonstrations/Front Line Demonstration

To obtain the significant result, recent and improved package of practices, new technologies for crop specific cultivation, use of IPM/INM, organic farming developed by SAU's and GOI institutions will be promoted through public participation in an intensive area of one hectare. These activities will be demonstrated at HETC.

S. No.	Program	Estimated Cost	Proposed assistance	Prop. target	Selected Areas
1	FLD on Rejuvenation of Guava, pruning of peach & Canopy management of Dusheri Mango (Public Sector)	Rs. 25 Lakh as Project based	100% of cost in farms belonging to public sector	1(No.)	HETC, Saharanpur
Grand Total			1 No.	Rs. 25.00 Lacs	

(13) Human Resource Development

Human resource development through trainings and skill up-gradation is an integral part of any mission in any social sector development programme. Under this programme, it is proposed to train the farmers, field level workers and officers of department. The success of mission lies in appropriate HRD and trainings imparted for the different stakeholders for the introduction and adoption of improved horticulture technologies. The important activities under the training are to provide resource material to the farmers and acquaint them about various farming techniques through training, exhibitions and demonstrations. Besides, exposure visits of farmers within the state & outside the state are also proposed to create awareness amongst the beneficiaries. In order to ensure full public participation wide publicity about the training programmes will also be required. It is proposed to provide assistance as per details given below to the DHMs to implement HRD programmes:-

S.N.	Programme	Unit	Estimated Cost	% of Assistance	Max. Limit	Target
a.	Training of farmers					
i.	Within the District	No.	₹ 400/day per farmer excluding transport	100	800	7800
ii.	Within the State	No.	₹ 750/day per farmer excluding transport	100	4500	3450
b.	Exposure visit of farmers					
ii.	Within the State	No.	₹ 300/day per farmer excluding transport	100	900	1200
iii.	Outside the State	No.	₹ 600/day per farmer excluding transport	100	4200	3650
c.	Training/study tour of technical staff/field functionaries					
i.	Within the State	No.	₹ 200/day per participant plus TA/DA, as admissible	100	1000	100
ii.	Study tour to progressive States/units (group of min.5 participants)	No.	₹ 650/day per participant plus TA/DA, as admissible	100	4550	100

(Phy in numbers; outlay in Lac ₹)

S. No.	DISTRICTS	Training of farmers				Exposure visit of farmers				Training/Study tour for field staff			
		Two days		Six days		Three days		Seven days		Within state (7 days)		progressive States (5d)	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur			200	1.60	100	4.50			100	4.20		
2	Muzzaffarnagar			200	1.60	100	4.50			100	4.20		
3	Moradabad			100	0.80	50	2.25	50	0.45	50	2.10		
4	Meerut			200	1.60								
5	Ghaziabad			150	1.20	50	2.25	50	0.45	100	4.20		
6	Bulandshahar			100	0.80			100	0.90	50	2.10		
7	Mahamaya Ngr			200	1.60	50	2.25	50	0.45	50	2.10		
8	Mathura			200	1.60	50	2.25			50	2.10		
9	Agra			200	1.60	50	2.25			50	2.10		
10	Mainpuri			100	0.80	50	2.25	50	0.45	50	2.10		
11	Bareilly			150	1.20	50	2.25			100	4.20		
12	Sitapur			300	2.40	150	6.75			100	4.20		
13	Unnao			150	1.20	100	4.50			100	4.20		

S. No.	DISTRICTS	Training of farmers				Exposure visit of farmers				Training/Study tour for field staff			
		Two days		Six days		Three days		Seven days		Within state (7 days)		progressive States (5d)	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
14	Lucknow			200	1.60	100	4.50			100	4.20		
15	Raebareili			200	1.60	100	4.50			100	4.20		
16	Farrukhabad			200	1.60	50	2.25			500	21.00		
17	Etawah			250	2.00	100	4.50			50	2.10		
18	Kanpur Nagar			250	2.00	100	4.50			100	4.20		
19	Kannauj			200	1.60	100	4.50			100	4.20		
20	Jhansi			50	0.40	100	4.50			100	4.20		
21	Lalitpur			100	0.80	50	2.25						
22	Jalaun			100	0.80	50	2.25	50	0.45	50	2.10		
23	Hamirpur			150	1.20	50	2.25	50	0.45	50	2.10		
24	Mahoba			100	0.80	50	2.25	50	0.45	50	2.10		
25	Banda			50	0.40	50	2.25						
26	Chitrakoot			150	1.20	100	4.50	50	0.45	50	2.10		
27	Pratapgarh			100	0.80	50	2.25			50	2.10		
28	Kaushambi			200	1.60	50	2.25			50	2.10		
29	Allahabad			200	1.60	100	4.50			100	4.20		
30	Barabanki			200	1.60	100	4.50			100	4.20		
31	Faizabad			200	1.60	100	4.50			100	4.20		
32	Sultanpur			300	2.40	200	9.00	250	2.25	100	4.20		
33	Siddarth Nagar			200	1.60	100	4.50			100	4.20		
34	Basti			200	1.60	50	2.25			100	4.20		
35	St Kabir Nagar			400	3.20	100	4.50			100	4.20		
36	Mahrajganj			200	1.60	50	2.25	50	0.45	50	2.10		
37	Gorakhpur			200	1.60	100	4.50	200	1.80	150	6.30		
38	Kushi Nagar			200	1.60	100	4.50			100	4.20		
39	Ballia			200	1.60	100	4.50			50	2.10		
40	Jaunpur			150	1.20	100	4.50			100	4.20		
41	Ghazipur			150	1.20	50	2.25	50	0.45	50	2.10		
42	Varanasi			150	1.20	100	4.50			50	2.10		
43	St Ravidasnagar			100	0.80	100	4.50	50	0.45	50	2.10		
44	Mirzapur			100	0.80	50	2.25	50	0.45	50	2.10		
45	Sonebhadra			100	0.80	50	2.25	50	0.45	50	2.10		
46	Head Quarter											100	1.00
Total		7800	62.40	3450	155.25	1200	10.80	3650	153.30	100	1.00	100	4.55
Grand Total						16300 No.				Rs. 387.30 Lacs			

In order to familiarize the farmers about the production practices being followed in other states, it is proposed to organize training and field visits outside the state and also within the state 'production areas or excellence' of that particular crop. Also, the selected farmers will be taken to the premier institutions such as - IARI, New Delhi, IIHR, Bangalore, IIVR, Varanasi, CISH, Lucknow, CPRI, Modipuram, Meerut, NBRI, Lucknow, CIMAP, Lucknow, NHRDF, Karnal/Nasik and the four SAU's where they will be trained,

will visit the farmers of the respective institutions and researches done on specific horticultural crops. The details of number of farmers, gardeners & officials trained during past four years is given below :-

S. No	Particulars	YEAR					
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Two days training of bene. farmers	14140	475	17732	19000	12707	9840
2.	Six days training of bene. farmers	700	100	4004	4202	4275	3916
3.	One day exposure visit						400
4.	Three day exposure visit						1035
5.	Seven days training cum visit of bene. farmers	2187	152	2629	2802	2470	2162
6.	Training of resource persons/officials	360	325	380	404	125	-
7.	Training of gardeners	-	-	-	250	-	-
Total		17387	1052	24745	26658	19577	17353

Training programme for Resource persons/officials

Sl. No.	Institution / Organization	Kind of Association
1.	CISH, Rahmankhera, Lucknow	Training of resource persons on production technology, mgt., post harvest management, IPM, INM, rejuvenation & organic production of mango, guava, aonla, banana & litchi.
2.	CIMAP, Lucknow	Training of resource persons on production technology, management, post harvest management & distillation technology for mentha, damisk rose & flowers.
3.	NBRI, Lucknow	Training of resource persons on production technology, management, post harvest management, IPM/INM of flowers-gladiolus, tuberose & other flowers.
4.	IIVR, Varanasi	Training on seed production technology, organic cultivation of vegetables, IPM & INM.
5.	IARI, New Delhi	Training of resource persons on establishment of model nursery, flower cultivation technology & protected cultivation technology.
6.	Manage, Hyderabad	Training of resource person on project management and marketing of horticultural crops.
7.	NIAM, Jaipur	Training of resource person on project management and marketing of horticultural crops.
8.	CSK Himanchal Agriculture University, Palampur	Training on bee keeping and honey processing.
9.	National Mushroom Research centre, Solan, HP	Mushroom cultivation and marketing.
10.	G.B. Pant University of Agriculture & Technology, Pant Nagar/SAU's	Mushroom cultivation and marketing.
11.	CPRI, Modipuram, Meerut	Potato seed production technology.
12.	Central Post Harvest Technology Centre, Aboher, Punjab	Post harvest infrastructure, Integrated packhouse, refer van & establishment of cold storages.
13.	IISR, Kalikat	Training on spices production technology.

The above mentioned Institutes will be requested to accommodate the training programme for the resource persons under NHM, UP in their training calendars for the year 2011-12 as per the needs of NHM, U.P.

[B] INTEGRATED POST HARVEST MANAGEMENT & MARKETING INFRASTRUCTURE

Food processing has an important role to play in linking Indian agriculture to consumers in the domestic and international markets. The agriculture sector in India contributes a fourth of the country's GDP and provides employment to approximately two thirds of the population. However, its potential has not been tapped due to underdevelopment of the food-processing sector in India. The single most important challenge the country faces is providing remunerative prices to farmers for their produce without incurring the additional burden of subsidy through minimum support prices or other such measures. This challenge could be addressed if cereals, fruits, vegetables, milk, fish, meat and poultry etc. are processed for consumption in the domestic and international markets. The impact of increased economic growth in agribusiness through food processing can play a significant role in reducing rural poverty and increasing rural income. Further, PHM & food processing leads to significant employment generation- not only directly but across the supply chain in production of raw materials, storage of produce and finished products and distribution of food products to consumers. Processing of food enhances shelf life of agricultural products and thus reduces wastages. The role of food processing becomes critical since food production is targeted to double in the next year. With low farmer price realizations and wastage in the food supply chain being significant even with the current level of production, only processed food can secure farmer incomes against a slump in prices as well as reduce wastages. Further, a vibrant food processing industry can be a catalyst for crop diversification.

Uttar Pradesh is one of the largest producer of farm commodities in the country and the largest producer of vegetables, wheat, maize, sugarcane, potato and milk. Some of the most delicious varieties of fruits are grown in the state. Thus there is an immense inherent potential in this sector. The state also has diverse agro climate conditions, which are conducive for a variety of crops round the year.

To move further up in the value chain exercise, as part of the Diversification efforts, the NHM (PHM) shall facilitate increase in processing of produce. Efforts will be made for promoting processing based production of horticultural crops in potential areas like under Horticulture Development Zones/AEZ. The details of Physical & Financial targets for various post-harvest management and marketing infrastructure creation is summarized below:

A Integrated Post Harvest Management

S. No.	Crop	Max. permissible Cost	Pattern of Assistance	NHM Share		Target
				%	Max.	
1	Pack house/on farm collection & storage unit	₹3 lakh/ per Unit with size of 9x6 mtr	50% of the capital cost.	50	150000	65
2	Pre-cooling unit	₹ 15 lakh for 6 MT capacity	credit linked back ended subsidy @ 40% of the cost of project.	40	600000	3
3	Mobile Pre-cooling unit	₹ 24 lakh/Unit for 5 MT capacity	credit linked back ended subsidy @ 40% of the cost of project for 5 MT capacity.	40	960000	2
4	Cold storage units (Multi chambers multi commodities)	₹6000/MT for 5000 MT Capacity	credit linked back ended subsidy @ 40% of the capital cost of project in respect of only those units which adopt new technologies and include insulation, humidity control and fin coil cooling system.	40	12000000	15
5	Refer vans/containers	₹ 24 lakh/unit for 6 MT capacity	credit linked back ended subsidy @ 40% of the cost of project	40	960000	3
6	Primary/Mobile/ Minimal processing unit	₹ 24 lakh/unit	credit linked back ended subsidy @ 40% of the cost of project in general areas.	40	960000	13
7	Ripening chamber	₹ 6000/MTfor 5000 MT capacity	credit linked back ended subsidy @ 40% of the cost of project	40	12000000	2

				NHM Share		
8	Evaporative/Low energy cool chambers	₹ 4 lakh/unit	credit linked back ended subsidy @ 40% of the cost of project	50	200000	11
9	Preservation unit					
i	Preservation New unit	₹ 2 lakh/unit	50% of the total cost.	50	100000	51
ii	upgradation of old unit	₹ 1 lakh/unit	50% of the total cost.	50	50000	58
10	Low cost onion storage structure (25 MT)	₹ 1 lakh/unit	50% of the total cost.	50	50000	41
Grand Total			264 Units	Rs. 2450.80 Lacs		

A (a)

(Phy in numbers; outlay in Lac ₹)

S. No.	DISTRICTS	Pack house		Pre cooling unit		Mobile Pre Cooling unit		Cold storage unit		Refer vans/containers		Minimal processing		Ripening chamber	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Saharanpur	4	6.00												
2	Muzzaffarnagar							1	120.00						
3	Moradabad	2	3.00					1	120.00	1	9.60				
4	Meerut	4	6.00									1	9.60		
5	Ghaziabad	2	3.00												
6	Bulandshahar	2	3.00					1	120.00	1	9.60	1	9.60		
7	Agra							4	480.00	1	9.60				
8	Bareilly	5	7.50												
9	Sitapur	2	3.00												
10	Unnao	1	1.50												
11	Lucknow	2	3.00	1	6.00										
12	Kanpur Nagar	1	1.50					1	120.00						
13	Jhansi	2	3.00									1	9.60		
14	Lalitpur	2	3.00									1	9.60		
15	Jalaun	5	7.50									2	19.20		
16	Hamirpur	3	4.50									1	9.60		
17	Mahoba	4	6.00									1	9.60		
18	Banda	2	3.00									1	9.60		
19	Chitrakoot	5	7.50									1	9.60		
20	Pratapgarh	1	1.50												
21	Allahabad	1	1.50												
22	Barabanki	2	3.00												
23	Faizabad	2	3.00	1	6.00			1	120.00						
24	Sultanpur	1	1.50									1	9.60		
25	St Kabir Nagar	1	1.50												
26	Gorakhpur	4	6.00												
27	Ballia	1	1.50									1	9.60		
28	Jaunpur							1	120.00						
29	Ghazipur	1	1.50					1	120.00						
30	St Ravidas ngr							1	120.00			1	9.60		
31	Sonebhadra							1	120.00						
32	Head Quarter	3	4.50	1	6.00	2	19.20	2	240.00					2	240.00
Total [Aa]		65	97.50	3	18.00	2	19.20	15	1800.00	3	28.80	13	124.80	2	240.00

A (b)

(Phy in numbers; outlay in Lac ₹)

S. No.	DISTRICTS	Low energy cool chamber		Preservation New unit		Upgradation old unit		Onion Storage	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Muzzaffarnagar							1	0.50
2	Moradabad			1	1.00	1	0.50		
3	Meerut	1	2.00						
4	Ghaziabad			1	1.00	2	1.00		
5	Bulandshahar							5	2.50
6	Agra			5	5.00				
7	Bareilly			5	5.00	5	2.50	7	3.50
8	Unnao	1	2.00			2	1.00	4	2.00
9	Jhansi			2	2.00				
10	Lalitpur			1	1.00				
11	Jalaun			4	4.00	5	2.50		
12	Hamirpur			5	5.00				
13	Mahoba			2	2.00				
14	Banda			1	1.00				
15	Chitrakoot			5	5.00				
16	Pratapgarh			1	1.00	1	0.50		
17	Allahabad			2	2.00	1	0.50		
18	Barabanki			2	2.00				
19	Faizabad	1	2.00					2	1.00
20	Sultanpur	1	2.00	1	1.00				
21	Gorakhpur			2	2.00			10	5.00
22	Kushi Nagar			1	1.00				
23	Ballia	1	2.00	2	2.00	1	0.50		
24	Ghazipur							2	1.00
25	Varanasi							5	2.50
26	Mirzapur	1	2.00	2	2.00				
27	Sonebhadra			1	1.00				
28	Head Quarter	5	10.00	5	5.00	40	20.00	5	2.50
Total [Ab]		11	22.00	51	51.00	58	29.00	41	20.50
Grand Total [Aa+Ab]				264 Units			Rs. 2450.80 Lacs		

B- Establishment of Marketing Infrastructure for Horticulture Produce

S. No.	Programme	Max.permissible Cost	Pattern of Assistance	NHM Share		Target
				%	Max.	
1	Static/mobile vending cart / platform with cool chamber	₹ 30000/unit	50% of the total cost.	50	15000	165
2	Functional Infrastructure for collection/ shorting/grading/ packing etc	₹ 15 lakh/Unit	credit linked back ended subsidy @ 40% of the capital cost	40	600000	9
3	Quality control analysis Lab Public Sector	₹ 2 lakh/unit	100% of the total cost.	100	200000	1
4	Market extension, quality awareness & market led extension activities for fresh products	₹ 3 lakh/ event	100% assistance to State Government/ SHM/Public Sector agencies	100	300000	10

(Phy in numbers; outlay in Lac ₹)

S. No.	DISTRICTS	Vending Cart		Functional Infrastructure		Quality control lab (public sec)		Market Led Extension Prog.	
		Phy	Outlay	Phy	Outlay	Phy	Outlay	Phy	Outlay
1	Meerut			1	6.00				
2	Ghaziabad			1	6.00				
3	Agra	20	3.00						
4	Bareilly	20	3.00						
5	Jhansi			1	6.00				
6	Lalitpur			1	6.00				
7	Jalaun			2	12.00				
8	Hamirpur			1	6.00				
9	Mahoba			1	6.00				
10	Chitrakoot			1	6.00				
11	Pratapgarh	5	0.75						
12	Allahabad	20	3.00						
13	Head Quarter	100	15.00			1	2.00	10	30.00
Total		165	24.75	9	54.00	1	2.00	10	30.00
Grand Total				185 No.			Rs. 110.75 Lacs		

Mission Management

The implementing agency of the horticulture mission is State Horticulture Mission in the state and Director, Horticulture & Food Processing, Uttar Pradesh is the head of State Horticulture Mission who is responsible for implementation of the Horticulture Mission Schemes. As per the guidelines of Govt. of India, a state-level Executive Committee has also been constituted under the Chairmanship of APC with Principal Secretary, Horticulture as Vice Chairman and Mission Director as Member Secretary to monitor and approve the action plan of Horticulture Mission schemes.

The different activities have to be planned crop season wise and the arrangements of all inputs and logistics will be made before commencement of sowing season/activity well in advance. All the inputs (seed and fertilizer)/ logistics will be made available at the field and the DHO's will be responsible for these. The DHO's will coordinate the availability of all the inputs and logistics at one place and place of availability will be preferably within the Nyay Panchayat.

The qualified Mission Assistants will be put on task (contractual basis) at block as well as district and state level. The Mission Assistants will be Agriculture graduates placed one at block level & one at district and state level by service provider selected through Expression of Interest on contractual basis. However, the number of Mission Assistants to be put to the task will solely depend on the availability of funds in Mission Management. These workers will be responsible for implementation, regular monitoring & technology dissemination under the administrative supervision of concerned District Horticulture Officer.

5% mission management is proposed for Rs.571.20 Lacs.

FINANCIAL REQUIREMENT

The Component wise fund requirement during the financial year 2011-12 is given in following table:-

(In Lac ₹)

S. No.	Programme	Fin Outlay	%age
A	PLANTATION INFRASTRUCTURE DEVELOPMENT	8867.26	73.89
B	INTEGRATED POST HARVEST MANAGEMENT	2450.80	20.42
C	ESTB. OF MARKETING INFRASTRUCTURE	110.75	0.92
D	SPECIAL INTERVENTIONS	-	-
TOTAL PLAN		11428.81	
E	MISSION MANAGEMENT	571.20	5.00
GRAND TOTAL		12000.00	

S. No.	Programme	Unit	Phy Target	Fin Outlay
1	Production of planting material	No.	43	353.13
2	Seed Production	Ha	2885	796.50
3	Seed Infrastructure	No.	2	300.00
4	Establishment of New Gardens- Perennials	Ha	5428	552.04
5	Establishment of New Gardens- Non Perennials	Ha	2550	795.64
6	Maintenance (IInd & III Year)	Ha	18777	1073.88
7	Intigrated Development of Mushrooms	No.	4	75.00
8	Flowers Cultivation	Ha	3273	812.76
9	Spices Cultivation	Ha	5520	690.00
10	Aromatic Plants	Ha	295	46.88
11	Rejuvenation/Canopy Management	Ha	2325	348.75
12	Creation of Water resources	No.	160	801.60
13	Protected Cultivation	Sqm/Ha	321975	1096.58
14	Promotion of INM/IPM	Ha	2034	64.31
15	Organic Farming	Ha/No.	2985	343.50
16	Pollination support through bee keeping	No.	18141	148.62
17	Horticulture Machanization	No.	230	155.78
18	FLD (Public Sector)	No.	1	25.00
19	Human Resource Development (HRD)	No.	16300	387.30
20	Integrated Post Harvest Management	No.	264	2450.80
21	Estb. of Marketing Infrastructure	No.	185	110.75
22	Special Interventions	No.		
23	Mission Management	5%		571.20
GRAND TOTAL				12000.00

EXPECTED OUTCOMES

- During 2011-12, as a result of implementation of National Horticulture Mission in 45 selected districts of the State, the proposed Annual increase in area production and productivity of Fruits, vegetables and potato is expected to increase as follows :

Sl. No.	Crop	Area (Lac Ha.)	Production (Lac M.T.)	Productivity (M.T./Hac.)
1.	Fruits	0.96	14.95	0.25
2.	Vegetables	1.76	40.18	0.35
3.	Potato	0.071	15.18	2.11

- Establishment of 42 Model & Small nurseries and 1 TC Lab in public sector.
- Establishment of New Gardens in 1705 ha. of Mango, 2183 ha of Guava, 775 ha. of Aonla, 305 ha. of Litchi, 460 ha. of Citrus & Beal /Ber and 2550 ha. of Banana tissue culture total 7978 ha. under fruits.
- Additional 3273 ha. of area to be brought under flower cultivation.
- Additional 5520 ha. of area to be brought under spices cultivation.
- Rejuvenation of Mango, Guava and Aonla orchards in 2325 ha. to increase productivity.
- Creation of 160 water resources sources in additional water availability for cultivation of horticulture crops
- Promotion of IPM in 2031 ha.
- Transfer of Technology through training for 16300 farmers within & outside the state.
- Distribution of 8970 Honey bee colonies & 8970 bee hives for pollination support and 201 sets of honey equipments.
- 230 farm machanisation equipments/ units.
- Creation of Post Harvest Infrastructure – 65 Pack houses, 3 Pre cooling units, 2 Mobile pre cooling units, 15 cold storage units, 3 refer vans/containers, 13 mobile/primary processing units, 2 Ripening chambers, 11 Evaporative low energy cool chambers, 51 New preservation units, 58 upgradation of old units and 41 Low cost onion storage.
- Marketing Infrastructure – 165 Static/Mobile vending cart, 9 Functional Infrastructure for collection, shorting, grading & packing centres and one (1) Quality Control analysis lab in public sector.
- 10 Market led extension, quality awareness programmes.

C. Action Plan (Physical & Financial phasing) : Attached.

