

## Impact of National Horticulture Mission on its Beneficiaries

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### ABSTRACT

The present study entitled "Impact of National Horticulture Mission on its beneficiaries" was undertaken as Joint AGRESO Project for the year 2011-12 in Akola and Washim districts of Maharashtra State. An exploratory design of social research was used. A sample of 120 beneficiaries as respondents were drawn and information was obtained from them which were considered for tabulation and analysis of data. Findings revealed that about two third (65.83%) of the NHM beneficiaries had medium knowledge about fruit crops selected for the district under the National Horticulture Mission. Nearly one half (49.17%) of the beneficiaries moderately favorable attitude towards the NHM. It was seen that majority of the respondent had beneficiaries (74.16%) had availed complete benefits of the schemes under National Horticulture Mission. Impact of NHM was measured in terms of change in income which was 1.65 lakhs before participation in NHM. It was increased over 2.49 lakhs after the benefits availed in NHM. It was 50.69 per cent change. There was change in employment days by 41.12 per cent. Land use under horticultural crop was changed by 87.50 percent, whereas less change was noticed (40.00%) in case of use of horticultural technology. Overall impact change was 54.82 per cent.

**Key words:** Impact; National Horticulture Mission (NHM); Knowledge; Beneficiaries.

Horticultural crops occupied 9 per cent of gross cropped area. It contributes 25 per cent of agricultural GDP and about 52 per cent of agricultural export. Therefore, Government of India gives more attention towards horticultural programmes, for providing relief measures to the small and marginal farmers, by introducing horticulture programmes like National Horticulture Mission. The beneficiaries are expected to have thorough knowledge about the National Horticulture Mission and its provision in order to avail the benefits under the mission. The National Horticulture Mission is aimed at to increase the area, production, productivity, research development, post harvest technology, marketing and processing of horticulture produce. For this purpose, it is, necessary to find out the impact of National Horticulture Mission on its beneficiaries and availed benefits by the them under this programme. The study also aims at finding the effectiveness of the mission, the changes that occurred due to implementation of National Horticulture Mission and profile of the beneficiaries. The objectives of the study were:

1. To study the profile of beneficiaries under National Horticulture Mission.
2. To study the knowledge of beneficiaries about National Horticulture Mission.
3. To analyze the impact of National Horticulture Mission on its beneficiaries.

### METHODOLOGY

An exploratory research design was used for the research study. The present study was conducted in Washim and Akola districts of Vidarbha region. In Vidarbha region two districts namely, Akola and Washim were selected and from each district two tahsils were selected randomly. From each tahsil three villages were selected randomly. From each selected village 10 beneficiaries of NHM were selected as respondents.

A structural interview schedule was prepared and used for data collection, in accordance with the objectives of the project. The respondents were contacted either at Gram Panchayat office, farm or at home and the information in the interview schedule was collected. Thus, the information obtained from 120 NHM beneficiaries were taken for analysis.

### RESULTS AND DISCUSSION

**1. Profile of the respondents :** The data with respect to various characteristics of the respondents have been furnished in Table 1. It revealed that over two third (67.50%) of the NHM beneficiaries belonged to middle age group (36 to 50 years). Nearly one third (32.5%) of the NHM beneficiaries had completed 'High school' education followed by 'Middle school (5th to 7th) (28.33%) level of education. Majority of the respondent beneficiaries (74.16%) had agriculture as sole occupation, 37.50 per cent of the respondent beneficiaries possessed semi medium size land holding (2.01 to 4.00 ha.). More than half of the respondent beneficiaries (57.5%) belonged to the medium experience in farming i.e. 11 to 20 years. Maximum number of NHM beneficiaries (55.83%) had annual income in the category of Rs.1.01 lakh to 2.00 lakh, followed by 25.83 per cent who had annual income above Rs.2.01 lakh.

As regards area under horticultural crops 60 per cent of the beneficiaries had 0.6 to 1.00 ha. area under horticultural crop. It also revealed that 39.16 per cent respondents had income of more than one lakh rupees from horticultural plantation. Majority of NHM beneficiaries (60.83%) had used drip for irrigation followed by pipes for irrigating orchard (26.67%). Half of the respondents (50.00 %) had tube well/bore well as source of irrigation, followed by 32.50 per cent respondents using wells as source of irrigation. Majority of the respondent beneficiaries (60.83%) had fall in medium category of use of information sources.

**Table 1**  
**Profile of NHM beneficiaries**

Sr. No.	Particular / Category	Respondents (N=120)	
		Frequency	Percentage
<b>1</b>	<b>Age (Years)</b>		
i	Young (up to 35)	32	26.67
ii	Middle (36 to 50)	81	67.50
iii	Old (Above 50)	07	5.83
<b>2</b>	<b>Education</b>		
i	Illiterate (No schooling)	02	01.67
ii	Primary school (Up to 4th)	22	18.33
iii	Middle school (5th to 7th)	34	28.33
iv	High school (8th to 10th)	39	32.50
v	College (11th and above)	23	19.17
<b>3</b>	<b>Occupation</b>		
i	Landless labour	-	-
ii	Agriculture + labour	01	0.84
iii	Agriculture (farming)	89	74.16
iv	Agriculture + allied occupation	12	10.00
v	Agriculture + business	18	15.00
<b>4</b>	<b>Land holding (ha)</b>		
i	Marginal (up to 1.00)	-	-
ii	Small (1.01 to 2.00)	28	23.33
iii	Semi-medium (2.01 to 4.00)	45	37.50
iv	Medium (4.01 to 10.00)	23	19.17
v	Large (Above 10.00)	24	20.00
<b>5</b>	<b>Farming experience</b>		
i	Up to 10 years	32	26.67
ii	11 to 20 years	69	57.50
iii	Above 20 years	19	15.83
<b>6</b>	<b>Annual income(rupees)</b>		
	Up to 1.00 lakh	22	18.34
	1.01 to 2.00 lakh	67	55.83
	Above 2.00 lakh	31	25.83
<b>7</b>	<b>Area under horticultural crops</b>		
	Up to 0.5 ha	45	37.50
	0.6 to 1.00 ha	72	60.00
	Above 1.00 ha	03	02.50
<b>8</b>	<b>Income from horticultural plantation (Rs.)</b>		
	Up to 50000	34	28.34
	50001 to 1 lakh	39	32.50
	Above 1 lakh	47	39.16
<b>9</b>	<b>Method of irrigation</b>		
	Pipe	32	26.67
	Drip	73	60.83
	Sprinkler	-	-
	Flood Irrigation	15	12.50
<b>10</b>	<b>Source of irrigation</b>		
	No source	11	9.17
	Well	39	32.50
	River	02	1.67
	Canal	08	6.66
	Tube Well/Bore Well	60	50.00
<b>11</b>	<b>Sources of information</b>		
	Low	18	15.00
	Medium	73	60.83
	High	29	24.17

Analysis of different sources reveals that, under informal personal sources friends, relatives, local leaders and progressive farmers were considered as source of information used by majority of NHM beneficiaries.

84.16 per cent of NIIM beneficiaries also 79.16 per cent respondent beneficiaries had no knowledge about year of start of National Horticulture Mission

The distribution of the respondent beneficiaries according to their knowledge is shown in the Table 3.

**Table 2**  
**Distribution of respondent beneficiaries according to their knowledge about National Horticulture Mission**

Sr. No.	Statements of Knowledge	Knowledge	
		Complete	No
		Frequency (N=120)	Frequency (N=120)
1	Year of start National Horticulture Mission	25 (20.84)	95 (79.16)
2	Minimum area required for plantation	19 (15.84)	101 (84.16)
3	Maximum area required for plantation	87 (72.50)	33 (27.50)
4	Preference to which class	57 (47.50)	63 (52.50)
5	Year wise subsidy and stages	43 (35.83)	77 (64.16)
6	Subsidy in 1 <sup>st</sup> year	47 (39.16)	73 (60.84)
7	Subsidy in 2 <sup>nd</sup> year	58 (48.33)	62 (51.67)
8	Subsidy in 3 <sup>rd</sup> year	77 (64.17)	43 (35.83)
9	Minimum per cent of live plants in 2 <sup>nd</sup> year to avail subsidy	84 (70.00)	36 (30.00)
10	Minimum per cent of live plants in 3 <sup>rd</sup> year to avail subsidy	99 (82.50)	21 (17.50)
11	Selection criteria for district and fruit crops	99 (82.50)	21 (17.50)
12	Fruit crops selected for district under NHM	109 (90.83)	11 (9.17)
13	Essential criteria for selection of land	108 (90.00)	12 (10.00)
14	Criteria does not required for selection	102 (85.00)	18 (15.00)
15	Responsibility for over expenses under NHM	108 (90.00)	12 (10.00)
16	Seedling/planting material supply centres	39 (32.50)	81 (67.50)
17	Is it essential to do the sole planting	47 (39.17)	73 (60.83)
18	In what situation the beneficiary has to return the subsidy after 3 <sup>rd</sup> year	47 (39.17)	73 (60.83)
19	Essential thing to get the benefit of scheme	87 (72.50)	33 (27.50)
20	Max. area for subsidy on green house	43 (35.83)	77 (64.17)

Figures in parentheses indicate percentages.

**Knowledge :** The frequency of knowledge of respondent beneficiaries about National Horticulture Mission was ascertained and the findings are given in Table 2.

It is evident from the distribution in Table 2 that 90.83 per cent of the respondent beneficiaries had complete knowledge about fruit crops selected for district under the National Horticulture Mission followed by 90.00 per cent beneficiaries had complete knowledge about essential criteria for field selection in NIIM, and knew the responsibility for over expenses.

Minimum area required for plantation under the National Horticulture Mission was not known to

**Table 3**  
**Distribution of respondent beneficiaries according to their knowledge**

Sr. No.	Knowledge level	Respondents	
		Frequency (n=120)	Percentage
1	Low	22	18.34
2	Medium	79	65.83
3	High	19	15.83

$$\bar{X} = 69.86$$

$$SD = 17.35$$

It could be observed from Table 3 that about two third (65.83%) of the respondent beneficiaries had

medium level of knowledge about National Horticulture Mission, whereas, 18.34 and 15.84 per cent respondent beneficiaries were having low and high level of knowledge about NHM. Therefore, it can be inferred that majority of the respondent beneficiaries had medium level of knowledge.

**Attitude of respondent beneficiaries towards National Horticulture Mission :** The frequency of attitude of beneficiary towards National Horticulture Mission was ascertained and the findings are given in Table 4.

It is observed from Table 4 that NHM beneficiaries expressed positive views about the functioning and benefits under NIIM. Majority of beneficiaries (93.33%) expressed that NHM helps in maintaining dignity of farmers, helps to adopt high value inputs and makes the farmer worryless. The NHM helps to become rich to farmers (80.33%). The NHM is well thought out and benefiting approach to the development of small farmers (76.67%) and employment problems can be solved with the adoption of NIIM (74.17%). NHM gives the opportunity to

**Table 4**  
**Distribution of respondent beneficiaries according to their frequency of attitude towards National Horticulture Mission**

Sr. No.	Statements of Attitude	Highly favorable	Moderately favorable	Less favorable
		Frequency (N=120)	Frequency (N=120)	Frequency (N=120)
1	The assistance given under National Horticulture Mission provide an opportunity to the farmers for use of amount of urgent home affairs	27 (22.50)	76 (63.33)	17 (14.17)
2	There is little work and more of propaganda done by the NHM	22 (18.34)	73 (60.83)	25 (20.83)
3	All the assistance under NHM are available to the big farmers	7 (5.84)	40 (33.33)	73 (60.83)
4	The NHM is well thought out and benefiting approach for the small farmers development	92 (76.67)	18 (15.00)	10 (8.33)
5	Due to NHM the unemployment problem is going to be solved	89 (74.17)	31 (25.83)	00 (0.00)
6	NHM gives the opportunity to farmers to develop rapport with officers of development department	72 (60.00)	30 (25.00)	18 (15.00)
7	NHM officials take less interest to develop rapport with rural people	10 (8.33)	100 (83.34)	10 (8.33)
8	In Maharashtra, NHM is not running well as the officials have no time to supervise the programme	15 (12.50)	105 (87.50)	00 (0.00)
9	With the introduction of this programme large proportion of farmers grew rich	97 (80.33)	23 (19.17)	00 (0.00)
10	NHM makes the farmer worryless	112 (93.33)	08 (6.67)	00 (0.00)
11	NHM helps to farmers to adopt high value input	112 (93.33)	08 (6.67)	00 (0.00)
12	NHM helps in maintaining dignity of farmers	112 (93.33)	08 (6.66)	00 (0.00)
13	NHM discourage farmers to adopt new improved scientific techniques of agriculture	10 (8.33)	100 (83.34)	10 (8.33)
14	NHM helps farmers to improve personal and socio - economic status	72 (60.00)	30 (25.00)	18 (15.00)
15	NHM helps to increase the income as well as production of horticulture crops	70 (58.33)	50 (41.67)	00 (0.00)
16	Farmers should take benefits obtained from NHM	112 (93.33)	08 (6.67)	00 (0.00)

Figures in parentheses indicate percentages

farmers to develop rapport with officers of development departments (60.00%).

Moderately favorable attitudes were observed about the working of the officials of the department. NHM is not working well as the officials have no time to supervise the programme (87.50%) and NHM officials take less interest to develop rapport with rural people (83.33%).

Favorable attitudes observed to the negative statement that all the assistance under NIIM is available to the big farmers (60.83%). Hence, it is concluded that majority of the respondent beneficiaries had highly favorable attitude towards NHM, due to the NHM, the unemployment problem is going to be solved and it is well thought out and benefiting approach for the small farmers development. Majority of the respondent beneficiaries had moderately favorable attitude towards NHM.

**Table 5**  
Distribution of respondent beneficiaries according to their attitude

Sr. No.	Attitude	Respondents	
		Frequency (N=120)	Percentage
1	Less favorable	12	10.00
2	Moderately favorable	59	49.17
3	Highly favorable	49	40.33

It can be seen from Table 5 that nearly one half (49.17%) of the respondent beneficiaries had moderately favorable attitude towards National Horticulture Mission, followed by 40.33 per cent had highly favorable attitude towards NHM. It can be concluded that the attitude towards National Horticulture Mission was moderately favorable to highly favorable.

**Benefits availed by the respondent beneficiaries from National Horticulture Mission :** The frequency of availed benefits from the National Horticulture Mission was ascertained and the findings are given in Table 6.

It is evident from the distribution in the Table 6 that above one fifth of the respondent beneficiaries (20.83%) took complete benefit of vermicompost unit, followed by 18.33 per cent respondent beneficiaries had availed complete benefit for rejuvenation of plantations. About 17.50 per cent respondent beneficiaries had obtained complete benefit for establishment of new garden for fruit crops, whereas 13.33 per cent respondent beneficiaries obtained complete benefits under establishment of new garden for flowers.

The benefits received completely by 10.00 per cent of beneficiaries about spices and aromatic plants and raising of shade net house only, 1.66 per cent obtained complete benefits of planting material regarding model nursery.

**Table 6**  
Distribution of the respondent beneficiaries according to their frequency of availed benefits from NHM

Sr. No.	Availed benefits	Complete benefit	Partial benefit	No benefit
		Frequency (N=120)	Frequency (N=120)	Frequency (N=120)
<b>1.</b>	<b>Under plantation infrastructure and development</b>			
<b>a.</b>	<b>Production of planting material</b>			
i.	Model nursery	00 (0.00)	00 (0.00)	120 (100.00)
ii.	Small nursery	00 (0.00)	16 (13.33)	104 (86.67)
iii.	Vegetable seed production	00 (0.00)	12 (10.00)	108 (90.00)
<b>b.</b>	<b>Establishment of new gardens (ha)</b>			
i.	Fruits	21 (17.50)	00 (0.00)	99 (82.50)
ii.	Flowers	16 (13.33)	4 (3.33)	100 (83.34)
iii.	Spices and aromatic plants	12 (10.00)	8 (06.67)	100 (83.33)
iv.	Rejuvenation	22 (18.33)	00 (0.00)	98 (81.67)
<b>c.</b>	<b>Creation of water resources (community tank)</b>	00 (0.00)	00 (0.00)	120 (100.00)

*Table cont.*

<b>d.</b>	<b>Protected cultivation</b>			
i.	Green house	00 (0.00)	00 (0.00)	120 (100.00)
ii.	Mulching	00 (0.00)	00 (0.00)	120 (100.00)
iii.	Shade net	12 (10.00)	00 (0.00)	108 (90.00)
iv.	Plastic tunnel	00 (0.00)	00 (0.00)	120 (100.00)
<b>e.</b>	<b>Promotion of INM/IPM</b>			
i.	Disease forecasting unit	00 (0.00)	00 (0.00)	120 (100.00)
ii.	Bio - control labs	00 (0.00)	00 (0.00)	120 (100.00)
iii.	Promotion of IPM	00 (0.00)	00 (0.00)	120 (100.00)
iv.	Plant health clinic	00 (0.00)	00 (0.00)	120 (100.00)
<b>f.</b>	<b>Organic farming</b>			
i.	Adoption of organic farming	22 (18.33)	00 (0.00)	98 (81.67)
ii.	Vermicompost unit	25 (20.83)	00 (0.00)	95 (79.17)
<b>g-</b>	<b>Human resource development</b>			
i.	Farmers training	00 (0.00)	00 (0.00)	120 (100.00)
ii.	Farmers education tours	00 (0.00)	00 (0.00)	120 (100.00)
<b>h.</b>	<b>Pollination support through bee keeping</b>	00 (0.00)	00 (0.00)	120 (100.00)
<b>2</b>	<b>Post harvest management</b>			
a.	Packing house	00 (0.00)	00 (0.00)	120 (100.00)
b.	Cold storage unit	00 (0.00)	00 (0.00)	120 (100.00)

Figures in parentheses indicate percentage

Partial benefits were obtained regarding production of planting material for small nursery (13.33%) vegetable and seed production (10.00%). Spices and aromatic plants (6.67%) establishment of flower gardens (3.33%)

No benefits were received by the selected beneficiaries under the study area about various activities of Post harvest management, Human resource development, and Green house, Promotion of INM / IPM, Mulching, Plastic tunnel and community tank

It was seen from the Table 7 that majority of the respondent beneficiaries (74.16%) availed complete benefits from National Horticulture Mission, followed by 25.84 per cent availed partial benefit.

Table 7

Distribution of respondent beneficiaries according to availed benefits

Sr. No.	Availed benefits	Respondents	
		Frequency (N=120)	Percentage
1	No benefit	0	0.00
2	Partial benefit	31	25.84
3	Complete benefit	89	74.16

**Impact of NHM Change in income :** National Horticulture Mission helped to increase the income of farmers through increase in total cultivated area and

area under irrigation. The distribution of respondents according to per cent change in income has been presented in Table 8.

It is revealed from Table 8 that, before participation in NHM nearly one third of the respondents (29.17%) had income 1.01 to 1.50 lakh per year. After participation in NHM beneficiaries' income was increased and it was 38.33 per cent exhibited 1.51 to 2.00 lakh income per year. The respondents having income level above 2.50 lakhs were only 5.00 per cent before participation in NHM whereas; it was increased (10.83%) after participation in NHM.

The overall change in the income level was noted 50.69 per cent by the beneficiaries under NHM.

The ratio between observed means was computed as indicated by 'z' value (5.19) which was observed to be significant at 0.05 level of probability. It clearly indicated that the income level of farmers before participation differed significantly after participation.

**Change in employment days :** National Horticulture Mission helped to increase the employment to the farmers due to increase in agricultural related activities throughout the year because of increase in total cultivated area and area under irrigation. Therefore one of the most important parameter that needs to be considered in

**Table 8**  
**Distribution of the respondents according to per cent change in income**

Sr. No.	Category of income Rs.in lakhs	Before NHM participation		After NHM participation		'z' Value
		Frequency	Percentage	Frequency	Percentage	
1	Up to 0.50	3	2.50	-	-	5.19*
2	0.51 to 1.00	40	33.33	08	6.67	
3	1.01 to 1.50	35	29.17	31	25.83	
4	1.51 to 2.00	18	15.00	46	38.33	
5	2.01 to 2.50	18	15.00	22	18.33	
6	Above 2.50	06	5.00	13	10.84	
	Total	120	100.00	120	100.00	
	Mean income	165608.00		249566.00		
<b>Per cent change 50.69</b>						

\* Significant at 0.05 level of probability

the assessment of overall impact of NHM on beneficiaries is the employment generation. The distribution of respondents according to change in employment days has been presented in Table 9.

It is revealed from Table 9 that, before participation in NHM nearly one fourth of the respondents (24.17%) were engaged in 51 to 100 days and 101 to 150 days in terms of man days per year whereas, 23.33 percent and 20.82 percent beneficiaries were engaged in 201 to 250 days and 151 to 200 days respectively before participation in NHM. Majority of respondents (68.33%) exhibited involvement in field related activities above 250 days. There was 41.12 per cent change noted in employment days in a year.

The mean employment days of farmers after participation in NHM was (303.75) were higher than that before participation was (215.23). The ratio between observed means was computed as indicated by

'z' value (9.18\*) which was observed significant at 0.05 level of probability. It could therefore, be stated that the farmers differed significantly in employment days before and after NHM participation.

**Change in land use :** National Horticulture Mission helped to increase in total cultivated area and area under irrigation. Before participation in NHM 48.33 per cent of beneficiaries possessed land between 1.51 to 2.00ha under cultivation. After participation in NHM, nearly one half (49.16%) of beneficiaries have brought above 2.00 ha area under cultivation. The per cent change in land use of the total land possessed by the beneficiaries was 87.50 per cent.

The ratio between observed means was computed as indicated by 'z' value (6.89) which was observed significant at 0.05 level of probability. It could therefore, be stated that the farmers differed significantly before and after NHM participation in land used by them for plantation of horticultural crops.

**Table 9**  
**Distribution of respondents according to change in employment days**

Sr. No.	Employment in days	Before NHM participation		After NHM participation		'z' Value
		Frequency	Percentage	Frequency	Percentage	
1	Up to 50	8	6.67	-	-	9.18*
2	51 to 100	29	24.17	-	-	
3	101 to 150	29	24.17	24	20.00	
4	151 to 200	25	20.83	13	10.84	
5	201 to 250	28	23.33	1	0.83	
6	Above 250	1	0.83	82	68.33	
	Total	120	100.00	120	100.00	
	Mean man days	215.23		303.75		
<b>Per cent change 41.12</b>						

\* Significant at 0.05 level of probability.

**Table 10**  
**Distribution of respondents according to change in land use**

Sr. No.	Land under cultivation (ha)	Before NHM participation		After NHM participation		'Z' Value
		Frequency	Percentage	Frequency	Percentage	
1	Up to 0.5 ha	8	6.67	-	-	6.89*
2	0.51 to 1.00	28	23.34	23	19.17	
3	1.01 to 1.50	25	20.83	24	20.00	
4	1.51 to 2.00	58	48.33	14	11.67	
5	Above 2.00	1	0.83	59	49.16	
	Total	120	100.00	120	100.00	
	Mean area	<b>1.6ha</b>		<b>3.00 ha</b>		
<b>Per cent change 87.50</b>						

\* Significant at 0.05 level of probability.

**Change in technology use :** Adoption of technologies of various programmes under NHM was one of the parameters to measure the impact of NHM on the beneficiaries. There were 28 technologies distributed under the main heading of land development, irrigation improvement in horticulture, post harvest technology and marketing. These were categorized as mentioned in Table 11. It was observed that majority of the NHM beneficiaries (90%) were adopting 5 technologies who had adopted traditionally by the local people under study area. There were no much change was observed after participation in NIIM. It was 55.83 per cent beneficiaries adopting 5 technologies followed by 55.83 per cent beneficiaries who were adopting 6 to 10 technologies of the practices under NHM. Total per cent change was noted 40.00 per cent.

The ratio between observed means was computed as indicated by 'z' value (-0.036) which was observed to be not significant at 0.05 level of probability. It could, therefore be inferred that the farmers did not differ significantly before and after

NIIM participation about technology used by them for plantation of horticultural crops.

**Coefficient of correlation of impact dimensions with impact of NIIM :**

It is evident from Table 12 that change in land use, change in technology use established positive and highly significant relationship with impact of NHM on beneficiaries.

**Table 12**  
**Coefficient of Correlation of dimensions of impact with overall impact of NIIM**

Sr. No.	Variables	'r' value
1	Change in income	0.1384 <sup>†</sup>
2	Change in employment days	0.1703 <sup>†</sup>
3	Change in land use	0.8977 <sup>**</sup>
4	Change in technology use	0.2807 <sup>**</sup>

\* Significant at 0.05 level of probability

\*\* Significant at 0.01 level of probability

**Table 11**  
**Distribution of respondents according to change in technology use**

Sr. No.	Number of technology use	Before NIIM participation		After NIIM participation		'z' Value
		Frequency	Percentage	Frequency	Percentage	
1	Up to 5	108	90.00	67	55.83	0.036 <sup>ns</sup>
2	6 to 10	12	10.00	53	44.16	
3	11 to 15	-	-	-	-	
4	15 to 20	-	-	-	-	
6	Above 20	-	-	-	-	
	Total	120	100.00	120	100.00	
	Mean	<b>5</b>		<b>7</b>		
<b>Percent change 40.00</b>						

\* NS - Not-significant



The variables change in income, change in employment days established significant relationship with impact of NHM on beneficiaries. It is inferred that all the dimensions of impact had established highly significant relationship with impact. It indicates that in order to increase the impact of NHM on beneficiaries (54.82 % at present) there is need to create awareness amongst them to increase the use of scientific technology.

**Overall impact of NHM :** The overall impact of NHM was computed with the help of formula as given in methodology section of this report. The overall impact of NHM was computed as follows.

It could be stated that NHM had created 55 per cent impact on its beneficiaries. On the basis of overall impact, respondents were categorized in to three categories as follows. Perusal of Table13 showed that NHM had created a moderate impact on 68.33per cent

$$\text{Overall impact of NHM on beneficiaries} = \frac{50.69+41.12+87.50+40.00}{4} \text{ i.e. } 54.82 \text{ per cent}$$

**Table 13**  
**Level of impact of NHM**

Sr. No.	Category	Per cent impact	Frequency (N=120)	Percentage
1	Low	Up to 33.33	20	16.67
2	Medium	33.34 to 66.66	82	68.33
3	High	Above 66.66	18	15.00

beneficiaries, followed by high impact on 15.00 per cent beneficiaries due to their involvement in NHM.

#### **Impact statements :**

- Mean annual income increases from 1.65 lakhs to 2.49 lakhs.
- Mean employment days rises from 215.23 man days to 303.75 man days.
- Mean land area under use increases from 1.60 ha. to 3.00 ha.
- Mean use of technology practices rise to 7 from 5.
- Overall impact of NHM on beneficiaries is 54.82 NHM helped to increase the income as well as

production of horticulture crops.

- New assets have been created due to NHM.

#### **CONCLUSION**

Level of impact of NHM showed that NHM had created a moderate impact on 68.33 per cent beneficiaries followed by high impact on 15.00 per cent beneficiary. The overall impact on all beneficiaries was 54.82 per cent. About two third (65.83%) of the respondent beneficiaries had medium level of knowledge about National Horticulture Mission. Forty per cent of the respondent beneficiaries had highly favorable attitude regarding the NHM and benefiting approach for the small farmers development. One fifth of the respondent beneficiaries (20.83 %) took complete benefit of vermin-compost unit, followed by 18.33 per cent respondent beneficiaries had availed complete benefit for rejuvenation of plantations and adopted organic farming concept respectively.

Impact of NHM showed that before participation in NHM majority of respondents (29.17%) had income of 1.01 to 1.50 lakh per year. After participation in NHM majority of respondents (38.33%) were seen in Rs.1.51 to 2.00 lakh income category per year. Before participation in NHM majority of respondents each (24.16%) exhibited in the category of 51 to 100 and 101 to 150 days in their employment in terms of man days per year. After participation in NHM, majority of respondents (68.33%) exhibited above 250 day's category in their employment in terms of man days per year.

**Recommendation :** NHM created moderate impact on its beneficiaries in terms of increased income, mandays, land use., however, it showed a not significant impact as far as use of scientific technologies is concerned, hence to increase the overall impact of NHM it is recommended that a condition should be made mandatory for beneficiary to undergo pre-training on scientific package of practices before availing benefits of NHM.

*Paper received on : April 10, 2013*

*Accepted on : July 17, 2013*

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