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**STANDING COMMITTEE ON AGRICULTURE ANIMAL
HUSBANDRY AND FOOD PROCESSING
(2022-2023)**

SEVENTEENTH LOK SABHA

**MINISTRY OF AGRICULTURE AND FARMERS WELFARE
(DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE)**

**'MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE (MIDH)
- AN APPRAISAL'**

FIFTY- NINTH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI
AUGUST, 2023/SRAVANA, 1945 (SAKA)**

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Presented to Lok Sabha on 09.08.2023
Laid on the Table of Rajya Sabha on 09.08.2023



LOK SABHA SECRETARIAT
NEW DELHI
AUGUST, 2023/SRAVANA, 1945 (SAKA)

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**COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE, ANIMAL
HUSBANDRY AND FOOD PROCESSING (2022-23)**

SHRI P.C. GADDIGOUDAR- CHAIRPERSON

MEMBERS

LOK SABHA

2. Shri Horen Sing Bey
3. Shri A. Ganeshamurthi
4. Shri Kanakmal Katara
5. Shri Abu Taher Khan
6. Shri Ram Mohan Naidu Kinjarapu
7. Shri Mohan Mandavi
8. Shri Devji Mansingram Patel
9. Smt. Sharda Anilkumar Patel
10. Shri Bheemrao Baswanthrao Patil
11. Shri Shriniwas Dadasaheb Patil
12. Shri Vinayak Bhaurao Raut
13. Shri Pocha Brahmananda Reddy
14. Shri Rajiv Pratap Rudy
15. Mohammad Sadique
16. Shri Devendra Singh *alias* Bhole Singh
17. Shri Virendra Singh
18. Shri V.K. Sreekandan
19. Shri Ram Kripal Yadav
20. VACANT[#]
21. VACANT^{*}

RAJYA SABHA

22. Smt. Ramilaben Becharbhai Bara
23. Shri Masthan Rao Beeda
24. Dr. Anil Sukhdeorao Bonde
25. Shri S. Kalyanasundaram
26. Shri Surendra Singh Nagar
27. Shri Kailash Soni
28. Shri Randeep Singh Surjewala
29. Shri Ram Nath Thakur
30. Shri Vaiko
31. Shri Harnath Singh Yadav

**Vacant w.e.f. 10.10.2022 due to demise of Shri Mulayam Singh Yadav on 10.10.2022 [Bulletin-Part II, Para No. 5316 dated 14.10.2022].*

Vacant w.e.f.29.04.2023 due to disqualification of Shri Afzal Ansari from Lok Sabha Membership from the date of his conviction in terms of the provision of Article 102(1)(e) of the Constitution of India read with Section 8 of the Representation of the People Act, 1951 [Notification No. 21/4(6)/2023/TO(B) Dated - 01.05.2023].

SECRETARIAT

- | | | | |
|----|---------------------------|---|----------------------|
| 1. | Shri Shiv Kumar | - | Additional Secretary |
| 2. | Shri Naval K Verma | - | Director |
| 3. | Shri Uttamchand Bharadwaj | - | Director |
| 4. | Shri N. Amarathiagan | - | Under Secretary |

INTRODUCTION

I, the Chairperson, Standing Committee on Agriculture, Animal Husbandry and Food Processing (2022-2023) having been authorized by the Committee to submit the Report on their behalf, present this Fifty-Ninth Report (Seventeenth Lok Sabha) on the subject "Mission for Integrated Development of Horticulture (MIDH) - An Appraisal" pertaining to the Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare).

2. The Standing Committee on Agriculture had selected the subject for examination during 2021-22. The Committee (2021-22) took evidence of the representatives of Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare) on the subject in their Sitting on 28.06.2022. As the examination of the subject could not be completed during 2021-22, the Committee (2022-23) again selected the Subject for examine during 2022-23. The Report was considered and adopted by the Committee at their Sitting held on 03.08.2023.

3. For facility of reference, the observations/recommendations of the Committee have been printed in bold at Part-II of the Report.

4. The Committee wish to express their thanks to representatives of the Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare) for furnishing requisite information to the Committee in connection with examination of the subject.

5. The Committee would also like to place on record their deep sense of appreciation for the invaluable assistance rendered to them by the officials of Lok Sabha Secretariat attached to the Committee.

NEW DELHI;
04 August, 2023
13 Sravana, 1944(Saka)

P.C. GADDIGOUDAR
Chairperson,
Standing Committee on Agriculture,
Animal Husbandry and Food Processing

ABBREVIATIONS

AAP	- Annual Action Plan
ADB	- Asian Development Bank
AICRPs	- All India Coordinated Research Projects
AIF	- Agriculture Infrastructure Fund
AISEF	- All India Spices Exporters Forum
AMI	- Agricultural Marketing Infrastructure
APEDA	- Agricultural and Processed Food Products Export Development Authority
APMC	- Agricultural Produce Marketing Committee
ATMA	- Agricultural Technology Management Agency
BSM	- Buyer-Seller Meet
BTSG	- Bamboo Technical Support Groups
BTSGs	- Bamboo Technology support Groups
CA	- Controlled Atmosphere
CACP	- Commission for Agricultural Costs and Prices
CAGR	- Compound Annual Growth Rate
CCEA	- Cabinet Committee of Economic Affairs
CDB	- Coconut Development Board
CEO	- Chief Executive Officer
CIAH	- Central Institute of Arid Horticulture
CIH	- Central Institute of Horticulture
CIPHET	- Central Institute of Post-Harvest Engineering & Technology
CITH	- Central Institute of Temperate Horticulture
CoEs	- Centre of Excellences
CPCRI	- Central Plantation Crops Research Institute
CPF	- Coconut Producer Federations
CPIS	- Coconut Palm Insurance Scheme
CPP	- Clean Plant Programme
CPS	- Coconut Producers' Societies
CS	- Cold storage
CSIR	- Council of Scientific & Industrial Research
CTC	- Coconut Tree Climbers
DA&FW	- Department of Agriculture and Farmers Welfare
DARE	- Department of Agricultural Research & Education
DASD	- Directorate of Arecanut and Spices Development
DCCD	- Directorate of Cashewnut & Cocoa Development
DMC	- District Mission Committee/ District Monitoring Committee
DMEO	- Development Monitoring and Evaluation Office
DMI	- Directorate of Marketing and Inspection
EC	- Executive Committee
EMC	- Empowered Monitoring Committee
NAM	- National Agriculture Market
EPC	- Export Promotion Council
FAOSTAT	- Food and Agriculture Organization Corporate Statistical Database
FHEL	- Fresh & Healthy Enterprises Ltd
FIs	- Financial Institutions
FPOs	- Farmer Producer Organizations

FRP	- Fair and Remunerative Price
GAP	- Good Agricultural Practices
GC	- General Council
GOI	- Government of India
GrAMs	- Gramin Agricultural Markets
GS	- Gram Sabha
GSB	- gummy stem blight
GTE	- Global Tender Enquiry
GVA	- Gross Value Added
HCDP	- Horticulture Cluster Development Programme
HMNEH	- Horticulture Mission for North East and Himalayan States
HRD	- Human Resource Development
ICAR	- Indian Council for Agricultural Research
ICFRE	- Indian Council of Forestry Research and Education
ICT	- Information Communication Technology
IJKSTC	- India International Kashmir Saffron Trading Centre
IITF	- India International Trade Fair
INM	- Integrated Nutrient Management
IPM	- Integrated Pest Management
IQF	- Individual Quick Freezing
ISAM	- Integrated Scheme for Agricultural Marketing
IT	- Information Technology
JITs	- Joint Inspection Teams
JLGs	- Joint Liability Groups
KCCs	- Kisan Call Centers
KKMS	- 'Kisan Knowledge Management System
KVKs	- Krishi Vigyan Kendras
KVSSL	- Krishi Vikas Sahakari Samiti Ltd
MANAGE	- National Institute for Agricultural Extension Management
MAs	- Market Aggregators
MFPI	- Ministry of Food Processing Industries
MIDH	- Mission for Integrated Development of Horticulture
MIS	- Market Intervention Scheme
MNCFC	- Mahalanobis National Crop Forecast Centre
MoA&FW	- Ministry of Agriculture and Farmers Welfare
MRIN	- Marketing Research and Information Network
MSP	- Minimum Support Price
NAM	- National Ayush Mission
NBB	- National Bee Board
NBHM	- National Beekeeping and Honey Mission
NBM	- National Bamboo Mission
NCCD	- National Centre for Cold-chain Development
NCOF	- National Centre for Organic and Natural Farming
NGOs	- Non-governmental organizations
NHB	- National Horticulture Board
NHM	- National Horticulture Mission
NHRDF	- National Horticulture Research & Development Foundation
NIAM	- National Institute of Agricultural Marketing
NICRA	- National Innovations in Climate Resilient Agriculture
NIFTEM	- National Institute of Food Technology Entrepreneurship and Management
NLAs	- National Level Agencies

NMPB	- National Medicinal Plants Board
NRCs	- National Research Centres
PACS	- Primary Agricultural Credit Society
PEQ	- Post Entry Quarantine
PFDC	- Precision Farming Development Centres
PHM	- Post-Harvest Management
PKVY	- Paramparagat Krishi Vikas Yojna
PMDP	- Prime Minister's Development Package
PM FME	- PM Formalisation of Micro Food Processing Enterprises Scheme
PMKSY	- Pradhan Mantri Kisan Sampada Yojana
PRI	- Panchyati Raj Institution
PSS	- Price Support Scheme
R&D	- Research & Development
RCMC	- Registration cum Membership Certificate
RE	- Revised Estimate
SAGF	- Strengthening of Agmark Grading Facilities
SAUs	- <i>State Agriculture Universities</i>
SDA	- State Designated Agency
SFAC	- Small Farmers Agribusiness Consortium
SHGs	- Self Help Groups
SHM	- State Horticulture Mission
SKUAST	- Sher-e-Kashmir University of Agricultural Sciences and Technology
SLEC	- State Level Executive Committee
SMAM	- Sub-Mission on Agricultural Mechanization
TMNE	- Technology Mission for North East
TMoC	- Technology Mission on Coconut
TSG	- Technical Support Group
VCA	- Venture Capital Assistance

CHAPTER - I

OVERVIEW OF THE HORTICULTURE SECTOR OF THE COUNTRY

Horticulture is a branch of Agriculture dealing with garden crops, generally fruits, vegetables, and ornamental plants. Horticultural Crops constitute a significant portion of the total agricultural produce in India. India is bestowed with varied agro-climates, which is highly favorable for growing large number of Horticultural Crops such as fruits, vegetables, spices, root tuber, ornamental, aromatic plants, medicinal species and plantation crops like coconut, arecanut, cashew and cocoa etc. The Indian Horticulture Sector contributes about 33% to the agriculture Gross Value Added (GVA) making very significant contribution to the Indian economy. Apart from ensuring nutritional security of the nation, it provides alternate rural employment opportunities, diversification in farm activities, and enhanced income to farmers.

AREA UNDER HORTICULTURE

1.2. As per the Land Use *Statistics* 2018-19, the total geographical area of the country is 328.7 Million Hectares, of which 180.88 Million Hectares (About 55.02%) is the reported Agricultural land area and 153.882 Million Hectares is the total cultivated land area in the country.

The State/UT-wise details of Agriculture land, Culturable waste land (as per Land Use Statistics 2018-19) and the Area under Horticulture (as per 1st Advance Estimates 2021-22) as furnished by the Department of Agriculture and Farmers Welfare is reproduced below:

Sl. No.	States/UTs	Arable Land / Agricultural Land	Culturable Waste land	Area ('000 Ha.) Under Horticulture
1	Andhra Pradesh	8997	412	1563.59
2	Arunachal Pradesh	424	61	66.06
3	Assam	3305	160	662.36
4	Bihar	6573	44	1294.67
5	Chhattisgarh	5570	366	774.75
6	Goa	197	53	-*
7	Gujarat	12661	1960	1931.68
8	Haryana	3817	54	469.37
9	Himachal Pradesh	816	120	336.10
10	Jammu & Kashmir	1091	158	404.12
11	Jharkhand	4319	380	434.16
12	Karnataka	12830	403	2726.58
13	Kerala	2235	96	1483.03
14	Madhya Pradesh	17121	934	2166.37
15	Maharashtra	20719	924	2349.81
16	Manipur	448	1	84.58
17	Meghalaya	1011	381	141.63
18	Mizoram	367	7	149.38
19	Nagaland	678	62	90.14

20	Odisha	6675	591	1463.76
21	Punjab	4233	12	439.56
22	Rajasthan	25484	3784	1650.52
23	Sikkim	97	4	68.45
24	Tamil Nadu	8109	323	1487.10
25	Telangana	6767	179	399.19
26	Tripura	270	3	126.03
27	Uttar Pradesh	18775	388	2382.64
28	Uttarakhand	1548	328	300.30
29	West Bengal	5615	13	1941.35
30	A&N Islands	28	3	-*
31	Chandigarh	1	-	-*
32	D&N Haveli	20	0	-*
33	Daman & Diu	3	0	-*
34	Delhi	53	10	-*
35	Lakshdweep	3	-	-*
36	Puducherry	28	5	-*
-	Others*	-	-	176.04*
-	All-India	180888	12219	27563.33

Note: * Area in respect of UTs, Delhi and Goa are clubbed against 'others'.

1.3. The Department of Agriculture and Farmers Welfare was asked to state its long-term perspective plan for area expansion in Horticulture particularly through development of Horticulture in available waste lands. In this regard, the Department has stated that *"No long-term perspective plan for area expansion through development of Horticulture available waste lands has been drawn as the data/information on waste land is not available with the Ministry."*

1.4. When asked about the policy of the Government for undertaking cultivation of Horticulture Crops in Wastelands and Forest lands, the Department of Agriculture and Farmers Welfare furnished the following reply:

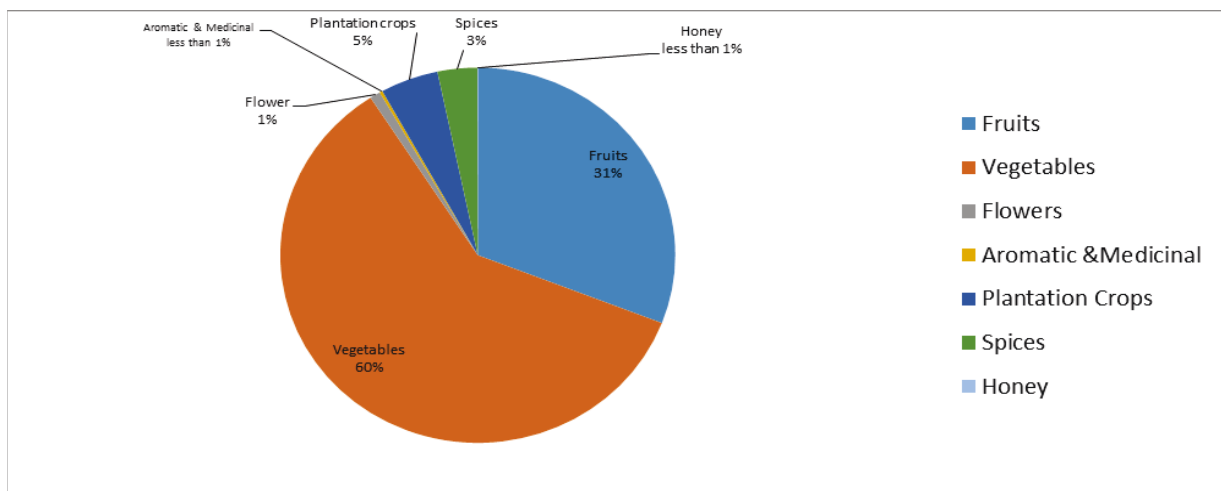
"There is a common approach with convergence on selected programmes and components in the development of Horticulture crops. However, an area of 9.15 million ha. brought under Horticulture crops from 2004-05 to 2021-22 mainly under cultivable land.

Gol promotes cultivation of perennials Horticulture crops in wastelands to prevent soil erosion and utilization of waste resources. However, there is no policy to promote horticulture cultivation in forest lands."

HORTICULTURE PRODUCTION IN INDIA

1.5. The Horticulture Sector has emerged as a prominent sector in the Indian agriculture contributing to an overall economic growth besides providing nutritional and health benefits. Production of vegetables and fruits constitute major portion of Horticulture Produce in India and these crops are found to be highly remunerable for farmers in rainfed, dryland, hilly, arid coastal areas. The share of different commodities in Horticulture Production is given below

Share of Different Commodity Groups in Horticulture Production



(% of 333.25 Million Tonne) - Source: Department of Agriculture and Farmers Welfare

1.6. India is currently producing 333.25 Million Tonnes of Horticulture Produce from an area of 27.56 Million Ha, (1st Advance Estimates, 2021-22) which has surpassed the estimated food grain production of 316.06 Million Tonne. As a result of changing dietary patterns, the composition of agricultural production has diversified over the years.

1.7. Between 2004-05 and 2021-22, Horticultural Production has achieved a Compound Annual Growth Rate (CAGR) of 4.15% as compared to 2.77% CAGR in food-grains production. This increase in production has come from an increase in acreage as well as productivity. The area under Horticulture Crops has grown from 18.44 Million Ha in 2004-05 to 27.56 Million Ha in 2021-22 (1st Advance Estimates) while the productivity has increased from 9.05 Tonne per Ha in 2004-05 to 12.09 Tonne per Ha in 2021-22 (1st Advance Estimates). As a result, India has maintained its second rank in the global production of Fruits and Vegetables, next only to China.

1.8. The details of State-wise Area and Production of Horticulture Crops for the year 2021-22 as furnished by the Department Agriculture and Farmers Welfare is at **Annexure-I**. A Statement showing details of total area, production under Horticulture Crops in the country and their annual percentage change for the last 10 years, as furnished by the Department of Agriculture and Farmers Welfare is as follows:-

Year	Area ('000 Ha.) Under Horticulture	Production ('000 MT)	Annual Percentage Change)	
			Area (%)	Production(%)
2011-12	23242.16	257276.57		
2012-13	23694.14	268847.45	1.94	4.50
2013-14	24198.48	277352.04	2.13	3.16
2014-15	23410.00	280986.11	-3.26	1.31
2015-16	24471.67	286187.72	4.54	1.85
2016-17	24851.45	300642.82	1.55	5.05
2017-18	25235.91	310674.80	1.55	3.34

2018-19	25736.71	311052.30	1.98	0.12
2019-20	26481.58	320471.20	2.89	3.03
2020-21	27476.10	334602.71	3.76	4.41
2021-22 (1st Advance Estimate)	27563.33	333251.25	0.32	-0.40

VOLATILITY IN HORTICULTURE PRODUCTION

1.9. The Committee noted that as per the 1st Advance Estimates for 2021-22, the Horticulture Production will come down by -0.4%. In this regard the Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare) has clarified *inter-alia* that *"This Ministry does not make any projection for growth trend of horticulture area/production. The first advance estimates released for 2021-22 will be revised through another two advance estimates and finalized subsequently. Hence, at this stage, it cannot be stated that growth trend after 2020-21 is negative."*

1.10. On being asked by the Committee about the reasons for periodic excess / lower production production in Horticulture Items like tomato, onion, etc. in different parts of the country and steps taken to address the issues, the Department in its reply stated:

"Production and productivity of horticultural crops mainly depends on the weather conditions, if the weather conditions are conducive then the production increases and in case of adverse weather conditions the production of horticulture crops decline. Apart from this, abiotic stresses such as drought, flood, heat, cold, salinity and nutrient deficiency also plays an important role in production and productivity of horticulture crops.

In order to face the challenges in the wake of climate change and adverse weather conditions, components like construction of green-house/shade net house, anti-hail nets, application of plastic mulching etc. are promoted under the component of protected cultivation under MIDH.

Apart from this, Indian Council for Agricultural Research (ICAR) has also taken steps to mitigate the effect of climate change on crops and has implemented a project namely National Innovations in Climate Resilient Agriculture (NICRA). The major objectives of NICRA are as under :

- (i) To enhance the resilience of Indian agriculture covering crops, livestock and fisheries to climatic variability and climate change through development and application of improved production and risk management technologies.
- (ii) To demonstrate site specific technology packages on farmers' fields for adapting to current climate risks.
- (iii) To enhance the capacity of scientists and other stakeholders in climate resilient agricultural research and its application.

PRODUCTIVITY IN HORTICULTURE PRODUCE

1.11. Horticulture Crops cover approximately an area of 27.59 Million Hectare at present; it has registered an increase of 32.17% as compared to 20.88 Million Hectare in 2009-10. However, with a production of about 331.05 Million Tonnes, Horticulture Production has witnessed an increase of about 48.39% during the period 2009-10 to 2020-21 (3rd Advance Estimates). The significant feature is that there has been improvement of productivity of Horticulture Crops which increased by about 12.25% during this period. Area, Production & Productivity of Horticulture crops during the past 11 years are as follows :-

Area, Production & Productivity of Horticulture crops
Area: Million Hectare, Production: Million Tonnes, Productivity:
Tonnes/Hectare

Year	Area	Production	Productivity
2009-10	20.88	223.09	10.69
2010-11	21.83	240.53	11.02
2011-12	23.24	257.28	11.07
2012-13	23.69	268.85	11.35
2013-14	24.20	277.35	11.46
2014-15	23.41	280.99	12.00
2015-16	24.47	286.19	11.69
2016-17	24.85	300.64	12.10
2017-18	25.24	310.67	12.31
2018-19	25.74	311.05	12.09
2019-20	26.48	320.47	12.10
2020-21 (3rd Advance Estimates)	27.59	331.05	12.00

1.12. The DA&FW was asked about the reasons for stagnation in productivity of Horticulture produces in the country at 12 Metric Tonne Per Hectare between 2014-15 and 2020-21, despite the efforts made under the MIDH, and the corrective steps taken by the Department. In this regard Committee were furnished the reply as under :

"Due to lack of Quality Planting Material and lack of Modern Technologies, the productivity of Horticulture Produces in the country has become stagnant at 12 Metric Tonne despite the efforts made under MIDH. With regard to increase in the productivity of Horticulture crops, this Ministry, inter-alia, has made a plan for import of quality planting material of high value horticulture crops. Best agricultural practices including Hi-tech Nursery, high density plantation are already part of MIDH Guidelines. Further to improve agriculture technologies, bilateral Action plans are in-force with Israel and Netherlands collaboration. Under Indo-Israel cooperation, so far 37 crop specific Centre of Excellences (CoEs) in 15 States and under Indo-Dutch Cooperation, 7 CoEs in 4 States have been established. The CoE serves as demonstration and training centre for latest technologies in horticulture development. The centre also serves as source of planting material for fruits and vegetable seedlings for protected and open cultivation."

1.13. On being asked by the Committee to furnish comparative data on productivity in Horticulture in India with that of advanced and top ranking export countries in Horticulture Produces, the Department furnished the following information:

"The productivity in respect of the top 10 fruits and vegetables exporting countries (in Value terms) in the world in the year 2020 and India as per Food and Agriculture Organization Corporate Statistical Database (FAOSTAT) are given below:

Sl. No	Top 10 Fruit exporting countries		Top 10 Vegetable exporting countries	
	Country	Productivity (Tonne/Ha.)	Country	Productivity (Tonne/Ha.)
1	China	16.40	China	25.55
2	Spain	12.58	Mexico	21.79
3	Netherlands	35.83	Spain	38.9
4	USA	22.41	Netherlands	58.55
5	Chile	16.71	Italy	32.75
6	Thailand	10.23	USA	39.02
7	Mexico	15.22	Belgium	32.16
8	Italy	15.76	France	21.08
9	Türkiye	17.91	Canada	25.29
10	Ecuador	19.31	Peru	13.53
	India	14.66	India	15.45

Source: FAOSTAT

MARKET INFRASTRUCTURE FOR HORTICULTURE PRODUCES

1.14. The Agricultural Marketing Division of Department of Agriculture & Farmers' Welfare (DA&FW) is entrusted to look after a gamut of issues relating to agricultural marketing, starting from conceptualization and formulation of farmers oriented policies and programmes to effective monitoring thereof for proper and efficient implementation.

1.15. Major schemes of Agri. Marketing Division consist of Integrated Scheme for Agricultural Marketing (ISAM) and Central Sector Scheme for Formation & Promotion of new 10,000 FPOs. ISAM consists of 06 sub-schemes viz. Agricultural Marketing Infrastructure (AMI), National Agriculture Market (e-NAM), Marketing Research and Information Network (MRIN), Strengthening of Agmark Grading Facilities (SAGF), CCS-National Institute of Agricultural Marketing (CCS NIAM), Venture Capital Assistance (VCA).

1.16. On being asked by the Committee to justify whether Marketing Infrastructure available for Horticulture Produces in the country was sufficient to support the Horticulture Sector of the country, the Committee were informed as under :

"Under MIDH, the component of market infrastructures development is entrepreneur/demand driven and being set up by entrepreneurs, private companies, cooperatives, farmers groups etc. through commercial ventures as per their demand and requirement.

However, no such study with regard to gap assessment of market infrastructure has been conducted by Horticulture Division of the Ministry."

IMPORT AND EXPORT OF HORTICULTURE PRODUCES

1.17. According to the Department of Agriculture and Farmers Welfare, import and export of Horticulture Produces in the country have increased over the years. The details regarding India's annual International trade during last 10 years and share value of agriculture and allied items and horticulture items therein as furnished by the Department of Agriculture and Farmers Welfare are at **Annexure-II**.

1.18. On being asked about the priority gained by different Commodity Groups in Horticulture in terms of Import and Export, as per latest trends, the Department furnished the following data:

"India's **Import** of Principal Horticulture Commodities in 2021-22

S. No.	Commodity	(Qty in '000'MT & Value in Rs Crore)	
		2021-22	
		Qty	Value
1	Fresh Fruits	1552.13	18342.09
2	Fresh Vegetables	45.99	138.11
3	Floriculture Products	6.25	258.53
4	Spices	363.99	9683.82
5	Cashew	939.2	9338.37
	Total	2907.56	37760.92

India's **Export** of principal Horticulture Commodities in 2021-22

S. No.	Commodity	(Qty in '000'MT & Value in Rs Crore)	
		2021-22	
		Qty	Value
1	Fresh Fruits	1164.6	6560.78
2	Fresh Vegetables	2384.85	5979.79
3	Floriculture Products	23.6	771.41
4	Spices	1425.06	29273.86
5	Cashew	75.45	3377.4
	Total	5073.56	45963.24

1.19. On being asked about the reasons for import of vegetables by the fast-food MNCs for their outlets in the country and the steps being taken by the Department in the matter, the Department of Agriculture and Farmers Welfare informed that *"Import policy of most of the vegetables is free except cashew, arecanut, pepper imported with Minimum Import price. Import of ginger is restricted except from Nepal. There is no quantitative restriction on import of vegetable in the country. Hence, there is no information/data available with this Ministry whether MNCs are importing vegetables for their outlets or not."*

1.20. The Committee sought to know whether it was practically feasible to completely stop import by way of increasing domestic production in Horticulture and details regarding

action taken / being taken towards that objective. In this regard, the Committee were informed as under :

"Department is focusing to increase production of indigenous fruits, vegetables, flowers, plantation crops and spices so as to reduce import dependency. There is an immense opportunity available in the country to grow vegetables and fruit production under organic method of cultivation to enhance the export. Imports can be minimised by growing them indigenously.

Apart from this, Central Government Institutes under ICAR, CSIR, SAUs, National level Govt. agencies and other location specific Institutes also take up need based applied research & development works for increasing the quality domestic production of horticulture in the areas of

- i. Quality Seed & Planting material
- ii. Technology standardization
- iii. Technology acquisition and
- iv. Imparting training and FLD, on project mode, with 100% assistance

Further, to ensure holistic growth of horticulture, increase exports and reduce imports of high value horticulture crops, the Ministry launched the Horticulture Cluster Development Programme (HCDP) in May 2021 in Pilot phase. In the 1st phase, 12 horticulture clusters have been selected. The programme is being implemented with the aims to grow and develop identified horticulture cultures to make them globally competitive. HCDP is designed to leverage the geographical specialisation of horticulture clusters and promote integrated and market-led development of pre-production, production, post-harvest, logistics, branding and marketing activities."

1.21. The Committee sought the reasons for lower level of production and utilization of export potential in respect of some of the fruits like banana, pine-apple, etc and vegetable as compared to many smaller countries of the world and also about the the steps being taken to address the issues. In response, the Department of Agriculture and Farmers Welfare furnished the reply as under :

"It is pertinent to mention that the production of horticulture crops in India has increased over the years. However, the major reasons for lower export potential of fruits and vegetables are as under:

- Lack of export-oriented production
- Lack of awareness among farmers about importing country requirements and standards;
- Excessive use of pesticides;
- Infrastructure gaps in terms of capacity of pack houses, cold storages, refer vehicles, etc.,
- Lack of organic and pest/disease free produce

To address the issues, i.e., to increase exports and reduce imports of high value horticulture crops, Ministry has already launched the Horticulture Cluster Development Programme (HCDP) in 12 pilot clusters to make them globally competitive and entrench them into national and global value chains. Further, the following activities are also being promoted under MIDH scheme which may address the above mentioned issues :

- Promoting Post Harvest Management activities like Cold storage (CS), cold chain supply chain including pack houses, ripening chamber, reefer vehicle, etc.
- Creation of better market infrastructure such as mobile vending cart, retail outlet, primary and wholesale markets.
- Providing training on latest technologies on production and post-harvest management of horticulture crops.
- Promotion of INM/IPM to minimise the use of insecticides and pesticides in horticulture crops.
- Promotion of organic farming and its certification.
- Promotion of Good Agricultural Practices (GAP) for horticulture crops.

PROMOTION OF EXPORT OF HORTICULTURE PRODUCTS

1.22. On being asked to state as to the extent of tapping of the export market for fruits/Horticulture Produces so far and the steps being taken to optimally utilize the export potential in the country, the DA&FW stated that:

APEDA was entrusted with the task of promoting export of horticulture products. It was also stated that several steps have been taken by the APEDA to boost export of Horticulture products, which include;

- (i) Opening of New Market
- (ii) Scheme for recognition of Horticulture Pack house
- (iii) Development of HortiNet Traceability system
- (iv) Outreach Programmes
- (v) Constitution of Export Promotion Forum
- (vi) Buyer Seller Meets
- (vii) Participation in National & International events
- (viii) Packaging Development:
- (ix) Quality development programmes:
- (x) Ease of doing business i.e. Electronic Facilitation
- (xi) Financial assistance scheme of APEDA:

1.23. As regards promotion of export of Coconut products, Department of Commerce, Ministry of Commerce and Industry has notified Coconut Development Board as an Export Promotion Council (EPC) **for all coconut products other than those made from coconut**

husk and fibre. Issue of Registration cum Membership Certificate (RCMC) to prospective exporters; facilitation of participation in international trade fairs and exhibitions by registered exporters to develop and expand markets; organizing Seminars/Workshops for prospective entrepreneurs and exporters, etc. are the major activities undertaken by the EPC."

RESEARCH AND DEVELOPMENT IN HORTICULTURE

1.24. The Department of Agricultural Research & Education (DARE) of Ministry of Agriculture and Farmers Welfare is responsible to look after all aspects of the agricultural research and education (including horticulture, natural resources management, agriculture engineering, agricultural extension, animal science, economic statistics and marketing and fisheries) involving coordination between the Central and State agencies.

1.25. On being asked about coordination of Research & Development and Farm-mechanization requirements in horticulture, the Department intimated that - "*Under Sub-Mission on Agricultural Mechanization (SMAM), all the machines and equipment including that required for horticulture mechanization are eligible for financial assistance and the funds are released to the States based on their proposals through the Annual Action Plans. The SMAM does not have any R&D component. However, the Division of Agricultural Engineering under Indian Council of Agricultural Research (ICAR) is mandated to plan, coordinate, and monitor R&D programmes in agricultural mechanization and serve as an information repository.*"

1.26. When asked by the Committee about *introduction* of genetically modified crops in horticulture, the Department of Agriculture and Farmers Welfare furnished reply *inter-alia*, as given below:

"Horticultural Science Division of ICAR deals with research, development and extension to develop various technologies/varieties on different horticulture crops (fruits, vegetables, spices, palms, plantation crops, onion & garlic, flowers, tuber crops and potato, medicinal and aromatic plants, mushroom, cashew etc.). Besides, location specific research work on Fruits, Vegetable Crops, Palms, Spices, Floriculture, Medicinal and Aromatic plants, Potato, Tuber crops, Arid Zone Fruits, Cashew, Mushroom, Onion and Garlic are done through 12 ICAR-All India Coordinated Research Projects (AICRPs) in different agro-climatic zones.

Further, 23 Institutes/Directorates/NRCs under Horticultural Science Division of ICAR have been continuously undertaking research projects with the support of modern agricultural technology to develop production and protection technologies, develop varieties, develop technologies related to post harvest and value addition on commodity crops. "

1.27. The Committee sought details regarding important innovations / technological improvements made by the concerned ICAR institutions for the development Horticulture Sector. In this regard, the Department furnished reply stating *inter-alia* as under :

"Important innovations/technological improvements from ICAR-DFR include improved varieties in chrysanthemum, gladiolus and tuberose, production, protection and post-harvest technologies, tools and gadgets for enhanced mechanization in flower crops. These are in different stages of development and dissemination to the stake-holders.

ICAR-CPCRI has developed 22 coconut varieties, 11 arecanut varieties and eight cocoa varieties for farmers'.

The Department has also enumerated a number of steps taken/ technologies developed by Horticultural Institutes / Directorates / NRCs / AICRPs under Horticultural Science Division of ICAR in the country for growth of agriculture/horticulture.

1.28. The Department of Agriculture and Farmers Welfare was asked about mechanism for speedy dissemination of information regarding innovations / technological improvements in Horticulture / Agriculture through Kisan Call Centers (KCCs) and the website - 'Kisan Knowledge Management System (KKMS)' <http://dackkms.gov.in>. In this regard, the Committee were furnished written reply as given below :

"A Kisan Knowledge Management System (KKMS) has been developed to capture all the details of the caller and sending gist of answer given through SMS. KKMS has its independent website: <http://dackkms.gov.in>. The Farm Tele Advisors (FTAs) working at various KCC locations throughout the country have access to this website through their specific IDs and password provided to them."

HYDROPONICS

1.29. Hydroponics is the cultivation of plants without using soil. In Hydroponics, flowers, herbs, and vegetables are planted in inert growing media and supplied with nutrient-rich solutions, oxygen, and water. This System fosters rapid growth, stronger yields, and superior quality. When a plant is grown in soil, its roots are perpetually searching for the necessary nutrition to support the plant. If a plant's root system is exposed directly to water and nutrition, the plant does not have to exert any energy in sustaining itself. The energy of the roots would have expended acquiring food and water can be redirected into the plant's maturation. As a result, leaf growth flourishes as does the blooming of fruits and flowers. When nutrients are dissolved in water they can be applied directly to the plant's root system by flooding, misting, or immersion. Hydroponic innovations have proven direct exposure to nutrient-filled water can be a more effective and versatile method of growth than traditional irrigation.

1.30. On being asked about the status of popularity of hydroponics, cultivation of plants, flowers, herbs, and vegetables in the country and details of supportive measures available for promotion of hydroponic in the country, the Committee were intimated inter-alia as under :

"Hydroponics technology was promoted by Israel where there is dearth of natural inputs like soil and water. Further, there is problem of nematodes and other soil borne diseases for which Israel has adopted hydroponics commercially. In India these resources are in abundance. Further, only leafy vegetables can be grown through hydroponics commercially. Because of these reasons, commercial cultivation of perennial horticulture crops through hydroponics is not picking up in the country. Hydroponics is not applicable in flower crops."

Eligible projects for building community-farming assets under this scheme [Agriculture Infrastructure Fund (AIF) Scheme] farmer groups such as FPOs, PACS, SHGs, JLGs, Cooperatives, National and State Level Federation of Co-operatives, FPOs federations, Federations of SHGs, National and State Level Agencies etc. are eligible for Hydroponic Farming."

LONG-TERM PLAN FOR HORTICULTURE DEVELOPMENT

1.31. The Committee sought the details regarding role of Horticulture Sector towards Food Security and Economic growth of the country, targeted growth rate in Horticulture Production and actual quantum of production during the last three years and the targets fixed for the ensuing three years. In this regard, the Department of Agriculture and Farmers Welfare furnished reply as under :

"Ministry is implementing Mission for Integrated Development of Horticulture (MIDH) for holistic development of horticulture sector throughout the country. Under MIDH, financial assistance is available for various pre and post-harvest horticulture activities for promotion of horticulture sector, which in turn promote the economic growth of the country. Details of Targeted and Actual production and Annual growth in production (%) for the last three years are given in the table below:"

Year	Targeted Production ('000 MT)	Actual Production ('000 MT)	Actual Production Growth over previous year (%)
2018-19	315000	311052	
2019-20	314000	320471	3.03
2020-21	316000	334603	4.41
2021-22 (3 rd Adv. Estimates)	320000	342329	2.31

1.32. When asked about the details of long term policy evolved / followed, if any, at the National Level for Horticulture Development, the Committee were furnished the reply as under :

"Long term policy and planning has been mentioned in the proposed EFC which is yet to be approved. However, following initiatives have been taken for long term at the National Level for Horticulture Development:

i. Horticulture Cluster Development Programme (HCDP): To ensure holistic growth of horticulture, increase exports and reduce imports of high value horticulture crops, the Ministry of Agriculture and Farmers' Welfare launched the Horticulture Cluster Development Programme (HCDP) in May 2021 in Pilot phase. In the 1st phase, 12 horticulture clusters have been identified for the HCDP. The programme is being implemented through National Horticulture Board (NHB) of the Ministry of Agriculture & Farmers Welfare with the aims to grow and develop identified horticulture cultures to make them globally competitive. HCDP is designed to leverage the geographical specialization of horticulture clusters and promote integrated and market-led development of pre-production, production, post-harvest, logistics, branding and marketing activities.

ii. Creation of Post Entry Quarantine (PEQ) Facility: For creation and utilization of infrastructure for production of disease free planting material, Post Entry Quarantine (PEQ) facilities are being created by ICAR Institutes at following locations:

- a. Central Institute of Arid Horticulture (CIAH), Bikaner - for Date Palm
- b. Central Institute of Temperate Horticulture (CITH), Dirang, Arunachal Pradesh - for Apple, Walnut, Almond
- c. Central Institute of Temperate Horticulture (CITH), Mukteswar, Uttarakhand- for Apple, Walnut, Almond
- d. Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST), CITH, Srinagar - for Apple, Walnut, Almond

iii. Clean Plant Programme: For multiplication of quality planting material in the country and to become self-reliant in supply of disease free quality planting material, DA&FW is initiating a "Clean Plant Programme (CPP)" to be implemented in 7 years (2023-2030) at an estimated cost of USD 280 Million (Rs 2200 Cr) with Asian Development Bank (ADB) support. The CPP scheme will develop 10 Clean Plant Centers in different agro-climatic zones for production of commercially important Fruit Crops. This will bring in Traceability and Certification in the planting material supply chain and make India self-sustainable in production and supply of Quality Planting Material of high value Horticulture plants."

MISSION APPROACH FOR HORTICULTURE DEVELOPMENT

1.33. To promote and develop Commercial Horticulture in the country, National Horticulture Board (NHB) was established in 1984. However, till the year 2001, not much focus was

given for development of horticulture. In the year 2001 based on the Recommendation of Dr. Swaminathan Committee Report, Government of India adopted a Mission approach to promote Horticulture initially in North Eastern States and subsequently in all other States. Brief details of Horticulture Missions for development of horticulture are given in succeeding paragraphs

1.34. **Technology Mission for North East (TMNE)** - Based on Dr. Swaminathan Committee report, Technology Mission for North East (TMNE) was launched in 2001-02 to promote horticulture in North Eastern States. The Mission was launched with end to end approach and horizontal and vertical integration of all developmental activities related to horticulture.

1.35. **Horticulture Mission for North East and Himalayan States (HMNEH)** - During 2003-04, the Scheme Technology Mission for North East was extended to three Himalayan States namely: Himachal Pradesh, Jammu and Kashmir and Uttarakhand and renamed as Horticulture Mission for North East and Himalayan States (HMNEH). The Mission covered entire spectrum of horticulture, right from planting to consumption, with backward and forward linkages.

1.36. **National Horticulture Mission (NHM)** - Keeping in view the success of HMNEH, Rabo Bank was assigned a study to identify potential horticulture districts in the country. Based on the study report of Rabo Bank and successful implementation of HMNEH, it was decided to launch a National Mission to cover other states also. Accordingly, in 2005-06, a Mission named National Horticulture Mission (NHM) was launched in remaining states of the country

MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE (MIDH)

1.37. In 2014-15, all the Individual Schemes for Horticulture mentioned above were subsumed into one scheme and named as 'Mission for Integrated Development of Horticulture' (MIDH). MIDH is a Centrally Sponsored Scheme for holistic growth of the Horticulture Sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and Bamboo.

1.38. **Sub-Schemes of MIDH** The MIDH, launched in 2014-15 for holistic development of Horticulture in the country, comprises the following Schemes of Horticulture :

1. National Horticulture Mission (NHM)
2. Horticulture Mission for North East & Himalayan States (HMNEH)
3. National Bamboo Mission (NBM)
4. National Horticulture Board (NHB)

5. Coconut Development Board (CDB)
6. Central Institute of Horticulture (CIH)

1.39. **Central Sponsorship for MIDH** - The Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme wherein the implementing agencies are State Horticulture Missions (SHM). In the total outlay of SHM, GoI contributes 60% for General States and 90% for NE and Himalayan States whereas General States contribute 40% and NE and Himalayan States contribute 10%. In case of UTs and National Level Organizations (NLA) and in respect of National Horticulture Board (NHB), Coconut Development Board (CDB) and Central Institute of Horticulture (CIH), Nagaland, GoI contributes 100%. MIDH also provides technical advice and administrative support to State Governments / State Horticulture Missions for the Saffron Mission and other horticulture related activities.

1.40. When asked about the likely duration for which MIDH has been envisaged to be implemented and whether any long term perspective plan has been drawn in this regard, the Committee were informed as under:

"MIDH in its current form has been approved for its continuation till March, 2023. However, EFC Note for its further continuation till March, 2026 being a part of Krishonnati Yojna has already been submitted. Long term perspective has been drawn in the proposed EFC of MIDH."

1.41. **MIDH Operational Guidelines** - The MIDH Operational Guidelines (midh.gov.in) contain details regarding Mission Objectives, Mission Structure including General Council and Executive Committee of MIDH, Procedure for Approval and Implementation, Fund Flow Mechanism, Mission Interventions, Mission Management, Role of National Level Agencies, etc. detailed guidelines in respect of NHB, CDB and CIH Schemes, including modalities of approval of projects will be issued separately for effective implementation of these schemes. To a specific query of the Committee on availability of MIDH Guidelines in regional languages, the Department intimated that MIDH Guidelines were available in Hindi and English Language only.

1.42. When the Committee sought for the updated version of MIDH Guidelines for perusal, the Department of Agriculture and Farmers Welfare informed the Committee that - *"The proposal of updation of MIDH Guidelines has already been submitted through EFC Note, which is yet to be approved. Hence, currently this Department does not have updated MIDH guidelines."*

1.43. The Committee sought to know the procedure followed in amending the MIDH Guidelines including the periodicity of amendments issued, if any. In this regard, the Committee were informed: - *"MIDH Guidelines were issued in April, 2014 with the approval of Cabinet Committee of Economic Affairs (CCEA). Therefore, the amendments*

in MIDH guidelines can only be done with the approval of CCEA. Guidelines issued in 2014 have not been amended so far, however it is due for amendment, after approval of EFC proposal/Cabinet Note of MIDH by EFC/ CCEA. "

OBJECTIVES OF MIDH

1.44. The objectives of the 'Mission for Integrated Development of Horticulture (MIDH)' are stated to be as under :

- Promote holistic growth of horticulture sector through area specific regionally differentiated strategies;
- To enhance horticulture production and productivity in the Country;
- To improve nutritional security and income support to farmer households and others involved in horticulture sector;
- To establish convergence and synergy among multiple on-going and planned programs for horticulture development;
- To promote, develop and disseminate latest and state of the art technologies;
- To generate employment for skilled and unskilled persons, especially unemployed youth and promote horti-enterprises.

RISKS AND CHALLENGES IN HORTICULTURE SECTOR

1.45. According to Department of Agriculture and Farmers Welfare, the increase in demand for horticultural produce due to greater health awareness, rising income, export demands and increasing population poses the challenge for further increasing the production and productivity of horticultural crops. The issue of climate change has thrown up greater uncertainties and risks, further imposing constraints on production systems. In this backdrop, the DA&FW was asked to state about the challenges that are being faced in the Horticulture Sector and the steps taken by the Department to find solution for the same. In this regard, the reply of the Department is as under :

"The major challenges faced by the Department in the Horticulture Sector are as follows:

- (i) Inadequate availability of quality planting material.
- (ii) Post-Harvest losses due to perishable nature of the products.
- (iii) Market linkages and supply chain issues with resultant price fluctuations.
- (iv) Lack of skilled human resources in horticulture sector.

To meet the challenges, the Department is already taking an integrated approach for production, post harvest management and marketing of horticultural crops. The following are some of the areas for which efforts are being taken:

- Establishment of mother blocks/rootstock blocks with hi-tech nurseries,
- Accreditation of Nurseries established for horticulture crops,
- Import of quality Planting Material.
- Cluster based approach for global competitiveness through Cluster Development Programme.
- Post harvest infrastructure – cold chain and supply chain development,

- Development of NER for “Niche crops” with branding & market linkage, especially for organic production,
- Capacity building through training & demonstration of improved technologies.

1.46. The Committee sought to know as to what extent risks and challenges faced by Horticulture Sector were ameliorated through Schemes and Programmes of Department of Agriculture and Farmers Welfare. In this regard, the Department furnished reply as under :

"At the time of launch of National Horticulture Mission (NHM), a sub-scheme of MIDH, in 2004-05, the horticulture production was only 166.9 Million MT which has now been increased to 342.33 Million MT in 2021-22. This shows that challenges faced by Horticulture Sector are ameliorated through Schemes and Programmes of Department of Agriculture and Farmers Welfare. Further, Department is implementing Mission for Integrated Development of Horticulture (MIDH) for holistic development of horticulture throughout the country. Under MIDH, financial assistance is available for various pre and post-harvest management horticulture activities such as area expansion, import of quality planting material, production of planting material and various post-harvest management infrastructure like pack houses, pre cooling unit, cold storages, transportation and capacity building programme etc. due to which a significant push is visible in the horticulture sector of the country."

1.47. **Nodal Agencies of MIDH** - The Horticulture Division of the Department of Agriculture and Farmers Welfare (DA&FW) is responsible for the implementation of Schemes and Programmes for horticulture development in the country including the Centrally Sponsored Scheme of 'Mission for Integrated Development of Horticulture (MIDH)'. The Horticulture Division monitors the functions of the concerned Autonomous Organizations and Subordinate Offices which implement MIDH Scheme Components.

1.48. On being asked by the Committee about the institutions / Statutory bodies / PSUs / Autonomous bodies/ other agencies of the Department of Agriculture and Farmers Welfare that are involved in promoting growth and development of Horticulture Sector in the country, the Committee were informed that there are two autonomous organizations namely National Horticulture Board (NHB) and Coconut Development Board (CDB), two Directorates namely Directorate of Cashewnut & Cocoa Development (DCCD) and Directorate of Arecanut & Spices Development (DASD) and one Institute i.e. Central Institute of Horticulture (CIH) under the umbrella MIDH scheme, which are implementing various schemes for development of horticulture in the country.

CHAPTER- II

MISSION STRUCTURE AND MISSION INTERVENTIONS IN MIDH

The Department of Agriculture and Farmers Welfare (DA&FW) of the Ministry of Agriculture & Farmers Welfare is the nodal department for the Implementation of MIDH. The Mission is implemented through many Implementing Agencies.

MISSION STRUCTURE

2.2. The Mission will have a General Council (GC) at National level under Chairmanship of Union Agriculture Minister. State Level Executive Committee(s) (SLEC) will oversee the implementation of programmes of the respective States. At District level, District Mission Committee (DMC) will be responsible for carrying forward the objectives of the Mission for project formulation, implementation and monitoring.

2.3. **General Council of MIDH** Horticulture Division in Department of Agriculture Cooperation (DAC) will provide the necessary support to MIDH General Council (GC) / Executive Committee (EC) / Empowered Monitoring Committee (EMC) and will administer NHM, HMNEH, NBM and CIH Scheme. Managing Director (NHB) will oversee the programmes of NHB while Chairman, CDB will oversee the CDB programmes. The existing structure of the Boards and Missions will be maintained to provide general direction for these programmes. EC/EMC will ensure smooth functional linkages among different agencies and meet as frequently, as required.

2.4. The Committee Sought to know about the roles and responsibilities of General Council and Executive Committee of MIDH vis-à-vis Autonomous Organizations of the Department of Agriculture and Farmers Welfare, the Department stated :

"General Council (GC) of MIDH was the formulation body giving overall direction and guidance to Mission, monitor and review its progress and performance. Without affecting the approved programmes, cost norms and pattern of assistance as approved by CCEA, General Council was empowered to lay down and amend operational Guidelines. The Executive Committee (EC) of MIDH was empowered to oversee the activities of the Mission and approve Action Plans of SHMs and NLAs. EC was also empowered to reallocate resources across States and components and approve projects on the basis of approved subsidy norms to approve special interventions for tackling emergent/unforeseen requirements.

It was also stated that being sub-schemes of MIDH, the Coconut Development Board (CDB), National Horticulture Board (NHB) and Central Institute of Horticulture (CIH) follow the directions/decisions of GC and EC of MIDH and the Directorate of Cashewnut and Cocoa Development (DCCD) and Directorate of Arecanut and

Spices Development (DASD) being the directorates under MIDH, the directions/decisions of GC and EC of MIDH are applicable to them also."

2.5. **State Level Executive Committee (SLEC)** - for NHM, HMNEH and NBM, under the Chairmanship of Agricultural Production Commissioner or Principal Secretary Horticulture/Agriculture/Environment & Forests, (in the absence of APC) having representatives from other concerned Departments of State Government including Forests, the State Agricultural Universities (SAU), Institutes under Indian Council of Agricultural Research (ICAR), Growers' Associations/FPOs, oversees the implementation of programmes of the respective States. Central Government nominates its representative to the SLEC. SLEC has the overall responsibility to take appropriate steps for development / horticulture in respective States.

State Level Committee of Implementing states will constitute District Level Committee (DLC) comprising of officials from Horticulture, Agriculture, Panchayatiraj institution and other line departments. Coordination will be ensured by this committee at district level.

2.6. The Committee sought information regarding Institutional Mechanisms(s) available to farmers at village/ Panchayat Union / Tehsil / Block levels in the process of preparation of Project Proposals as per the specifications laid down in MIDH Guidelines. The Department replied as under :

"The MIDH scheme is being implemented through respective State Horticulture Missions throughout the country. State Horticulture Mission is the Implementing Agency of MIDH and having District Level Offices/Officers including subject matter specialist to guide the farmer's/horticulture growers in the matter of project formulation including guidance in documentation for availing the benefits under MIDH scheme."

2.7. State Missions can also set up State level Technical Support Group (TSG) on the pattern of national level TSG for project formulation, appraisal and concurrent monitoring. State Missions will have freedom to hire consultants for providing technical support at State as well as District level and for this purpose, funds will be provided from States' TSG component.

2.8. The Department informed the Committee that the State Level Executive Committees, District Mission Committee and Technical Support Group of MIDH including that at District level have been constituted and are functional in all States/UTs. The Department, however, when asked about the details as to whether all districts of the country have been covered under the MIDH, it was stated:

"All the districts of North Eastern and Himalayan States have been covered under HMNEH (a sub scheme of MIDH). However, under NHM (a sub-scheme of MIDH), 384 districts are covered. All the districts of other States have not been covered to avoid thin distribution of already limited resources. Further, the scheme envisages cluster approach for development of potential horticultural crops duly ensuring backward and forwarded linkages. While selecting the district, comparative advantage of crops based on agro climatic conditions, potential for development and marketing opportunities have been taken into consideration. "

2.9. **National Level Agencies (NLAs) in the Implementation of MIDH** - National Level Agencies (NLAs) were established at different points of time keeping in view the need and points of Mission Interventions Prior to implementation of the NHM and HMNEH, the NLAs were funded by different sources specifically, by their Ministries for implementation of their activities. They implement the programmes relating to their own mandate as well as coordinating and monitoring the programmes implemented under MIDH.

ROLE OF AGRICULTURAL EXTENSION OFFICES IN MIDH

2.10. When asked about the role and responsibilities of Agricultural Extension Agencies like Krishi Vigyan Kendras (KVKs), Kisan Call Centres (KCCs), etc. in Horticulture development, the Department of Agriculture and Farmers Welfare furnished written reply as under :

"KVKs functioning in districts having horticulture crops, conduct on farm testing to assess the effectiveness of recommended technologies pertaining to improved varieties, agro-techniques and value addition for horticulture crops developed by research institutes and organise frontline demonstrations on technologies which are found suitable for the agro-ecological situations in the respective districts. Besides, KVKs also organise training programmes and other extension activities on technologies for enhancing productivity and income from horticulture crops to benefit farmers, extension personnel, farmer producer organisations, rural youth and farm women. KVKs also facilitate formation and functioning of FPOs in horticulture sector in the respective districts to empower farming community, especially small and marginal farmers. Besides KVKs, various other agencies including State Agri/Horti Departments, ATMA, Local Self Governments, NGOs etc also conduct extension activities to benefit farmers and other stakeholders for the integrated development of horticulture sector."

2.11. To a specific query of the Committee seeking information regarding involvement of KVKs, Agriculture Technology Management Agencies and other Agricultural Extension offices at local levels in the implementation of MIDH and reasons / comments in case of non-involvement of these agencies, the Committee were informed that *"Under MIDH scheme State Agriculture Universities (SAUs), ICAR Institutes, KVKs and other*

institutions having technical expertise are involved to organize workshops, seminars and training programmes for all interest groups/associations at state level."

MISSION INTERVENTIONS UNDER MIDH

2.12. Under MIDH, the interventions envisaged for achieving desired goals would be varied and regionally differentiated with focus on potential crops to be developed in clusters by deploying modern and hi-tech interventions, duly ensuring backward and forward linkages. As per MIDH Operational Guidelines, MIDH consists of the following 22 Interventions each comprising of several Sub-Components.

- (i). Research & Development
- (ii). Production and Productivity Improvement under MIDH
- (iii). Production and Distribution of Planting Material
- (iv). Establishment of New Gardens
- (v). Mushroom Production
- (vi). Rejuvenation/Replacement of Senile Plantations/Canopy Management under MIDH
- (vii). Creation of Water Resources
- (viii). Protected Cultivation
- (ix). Precision Farming Development and Extension Through PFDCs
- (x). Promotion of Integrated Nutrient Management (INM) & Integrated Pest Management (IPM)
- (xi.) Organic Farming
- (xii). Good Agricultural Practices (GAP)
- (xiii). Centre of Excellence for Horticulture
- (xiv). Human Resource Development (HRD) in Horticulture
- (xv). Pollination Support Through Bee-Keeping
- (xvi) Horticulture Mechanization under MIDH
- (xvii) Technology Dissemination Through Demonstrations / Frontline Demonstration
- (xviii) Integrated Post Harvest Management
- (xix) Cold Chain Infrastructure
- (xx) Creation of Market Infrastructure
- (xxi) Processing & Value Addition
- (xxii) Insurance Schemes on Coconut

IMPLEMENTATION OF MISSION INTERVENTIONS

2.13. As per MIDH Operational Guidelines, the Mission will be demand and need based in each segment. Technology will play an important role in different interventions. Technologies such as Information Communication Technology (ICT), Remote Sensing and Geographic Information System will be widely used for planning and monitoring purpose including identification of sites for creating infrastructure facilities for post-harvest management, markets and production forecasts.

2.14. The Department of Agriculture and Farmers Welfare, on being asked to provide a complete updated list showing details of permissible MIDH Interventions under each of the five MIDH Sub-Schemes and the NLAs engaged by the Nodal Agency for implementation Schemes/projects, furnished the following details to the Committee :

Sl. No.	MIDH Sub-Scheme	Permissible Major MIDH Interventions and their brief Details	Name of NLAs Implementing the Intervention
1	NHM, HMNEH, NHB, CDB, CIH	<ul style="list-style-type: none"> ▪ Increasing productivity through introduction of improved varieties, quality seeds and planting materials, protected cultivation, high density plantation, rejuvenation, precision farming and horticultural mechanization. ▪ Promoting Post-Harvest Management through Cold storage (CS), cold chain supply chain including pack houses, ripening chamber, reefer vehicle, etc. ▪ Promoting Primary and minimal processing ▪ Market Linkages: Market infrastructure such as mobile vending cart, retail outlet, primary and wholesale markets. Creating direct market/farmers market. ▪ Aggregating farmers into FPO/FIG and promoting their tie up with Market Aggregators (MAs) and Financial Institutions (FIs). ▪ Skill Development: Human Resource Development such as awareness programme, farmers training, exposure visit, etc. Providing training on latest technologies on production and post-harvest management to women and youth. Converting HRD interventions to Skill Development in Horticulture as per ASCI curriculum. ▪ Food & Nutritional Security: Increasing Area and Production of horticulture crops with high nutritional value. Promoting sustainable horticulture. ▪ Promotion of INM/IPM, organic farming, Good Agricultural Practices (GAP). ▪ Development of Commercial Horticulture through Production and Post-Harvest Management. <p>Integrated development of coconut sector in the country.</p>	<p>The schemes are being implemented through State / NLAs . The details are as under:</p> <ol style="list-style-type: none"> 1. National Horticulture Board (NHB) 2. Coconut Development Board (CDB) 3. Small Farmer's Agri-Business Consortium (SFAC), New Delhi 4. Directorate of Cashew and Cocoa Development (DCCD), Kochi 5. Directorate of Arecanut and Spices Development (DASD), Calicut 6. National Committee on Platiculture Applications in Agriculture & Horticulture (NCPAAH) 7. National Horticulture Research & Development Foundation (NHRDF) 8. Hindustan Insecticides Ltd. (HIL) 9. National Institute for Agricultural Extension Management (MANAGE) 10. Fresh & Healthy Enterprises Ltd. (FHEL) 11. Agricultural and Processed Food Products Export Development Authority (APEDA) 12. National Bee Board 13. National Seed Corporation 14. Spices Board 15. Directorate of Marketing & Inspection (DMI) 16. Ministry of Food Processing Industries (MFPI) 17. National Medicinal Plants Board (NMPB) 18. Central Institute of Horticulture (CIH), Nagaland 19. National Centre for Cold Chain Development (NCCD) 20. National Institute of Food Technology Entrepreneurship and Management (NIFTEM) 21. Indian Agricultural Statistics Research Institute 22. Mahalanobis National Crop Forecast Centre (MNCFC) 23. National Institute of Agricultural Marketing (NIAM) 24. Krishi Vikas Sahakari Samiti Ltd (KVSSL) 25. National Centre for Organic and Natural Farming (NCOF) 26. All 21 ICAR Institutes engaged in Horticulture development

2.15. The Committee noted that a Study was conducted by the Department of Agriculture and Farmers Welfare to find out Impact Evaluation on NHM / HMNEH by the Agricultural Development and Rural Transformation Centre, Bengaluru in Nov, 2017. The Committee also perused other relevant data supplied by the Department. The Committee having observed that some of the MIDH Interventions gained priority over other Interventions in the process of implementation of MIDH, sought clarification as to whether any criteria was followed in prioritizing some specific Mission Interventions as compared to others and also justification for the same. In this regard, the Committee were furnished reply as under :

"General Council / Executive Committee / DA&FW may select or prioritize some specific Mission Interventions on the basis of requirement arises in horticulture sector. Recently for promotion and scaling-up the production of important globally popular fruits as well as indigenous fruits having high nutritional value, DA&FW has identified ten (10) important exotic fruits and ten (10) locally popular Niche crops. These fruits are promoted in the country by scaling up their production in suitable agro-climatic conditions throughout the country and creating better ecosystem for marketing. Further, Horticulture Cluster Development Programme (HCDDP) and Clean Plant Programme have also been initiated as described in reply of **Q.1.**"

2.16. When asked about the procedure for review of MIDH Interventions along with follow up action taken thereof, the Committee were informed that *"As the MIDH Guidelines were issued with the approval of Cabinet Committee of Economic Affairs (CCEA). Therefore, the amendments in MIDH guidelines can only be done with the approval of CCEA."*

DECISIONS OF GENERAL COUNCIL OF MIDH

2.17. The Committee Sought to know as to (i) how in the last eight years decisions taken by the General Council have resulted in holistic development of Horticulture in all States and Union territories *and* (ii) how the Horticulture Sector in the country has developed in each decade after Independence. In this regard, the reply of the Department in this regard is as under :

"The major decisions of General Council and action taken are as under: -

Decision of General Council	Action Taken
Establishment of FPO for collection and distribution of vegetables and fruits.	Promotion of FPOs/FIGs is supported under MIDH as per the norms issued by SFAC from time to time. A total of 7467 FPOs/FIGs have been promoted under MIDH. Apart from this, assistance is also provided under MIDH to SFAC for creation of FPOs.
Import of Planting Material of suitable varieties.	To fulfill the requirement of genuine and quality planting material of high value horticulture crops such as Apple, Walnuts, Almonds, Date-palm, Grapes and Kiwi. Department of Agriculture & Farmers Welfare has assigned the responsibility to National Seeds Corporation (NSC) for import of planting material and to National Horticulture Board (NHB) to create the PEQ facilities for imported planting material. The Post Entry Quarantine Facilities are to be created in 4 states viz; Uttarakhand, Himachal Pradesh, J & K and Arunachal Pradesh by NHB. All the 4 States have allotted the requisite land for creation of PEQ facilities. The required quantities of planting material will be imported by NSC from its own resources and hand it over to States as per their requirement on no profit no loss basis.

<p>Extensive stakeholders consultation shall be undertaken after obtaining recommendation of expert panel and cost norms committee.</p>	<p>In order to take a view on inclusion of new components and revision of cost norms 6 Regional Group covering all the States/UTs, were formed to study the existing provisions of scheme and point out the working difficulties , if any, and to also suggest new components, cost norms and new ideas. In addition, 4 different Committees were constituted at Ministry level i.e. Committee to examine existing cost norms under MIDH, Committee on improvement of seed varieties, planting material and new technologies, Committee on Post Harvest Management and logistics and Committee to assess the need for trained manpower in horticulture sector.</p> <p>Based on the suggestions of the Regional Groups and Committees draft EFC memo (including cost norms) of MIDH for 5 years period from 2021-22 to 2025-26 has been prepared.</p>
<p>Processing of onion, irradiation, proper storage and drying needs to be encourage</p>	<p>Under MIDH, lost cost onion storage is promoted. Under PHM component, primary processing, processing and value addition in onion is also supported. As on date 33234 number of low cost onion storage has been created with capacity of 8.30 lakh Tonne since 2014-15. Financial assistance for Irradiation is provided under the cold-chain scheme of MoFPI.</p>

Decade-wise data on Horticulture since independence of the country is not available. However, it is stated that Production of Horticulture Crops has been increased from 257 MT in 2011-12 to 334 MT in 2021-22. Further, area of Horticulture crops has been increased from 23.24 Million Ha. to 27.59 Million Ha. and productivity has been increased from 11.07Tonn/Hectare to 12.00 Tonn/Hectare during the same period. "

CHAPTER-III

PROCEDURE AND IMPLEMENTATION OF MIDH PROJECT PROPOSALS

Under MIDH, Government of India contributes 60% of total outlay for developmental programmes in all the states except in North East and Himalayan states, 40% share is contributed by State Governments. In the case of North Eastern and Himalayan States, GOI contributes 90%. In case of National Horticulture Board (NHB), Coconut Development Board (CDB), Central Institute for Horticulture (CIH), Nagaland and the National Level Agencies (NLA), GOI contributes 100%. MIDH also provides technical advice and administrative support to State Governments/ State Horticulture Missions (SHMs) for other horticulture related activities. Following table shows the operational area and funding pattern of the Sub-Schemes which now stand subsumed under the MIDH :

Sub-Scheme & (Starting Year)	Area of Operation	Funding Pattern
1. Coconut Development Board (CDB)-(1981)	All states and UTs where coconut is grown	100% from Centre
2. National Horticulture Board (NHB)-(1984)	All states and UTs focusing on commercial horticulture	100% from Centre
3. Horticulture Mission for North East and Himalayan States (HMNEH)-(2001-02)	All states in North East and Himalayan Region	90:10 (Centre & State Govt.) from 2015-16 onwards
4. National Horticulture Mission (NHM)-(2005-06)	All states and UTs except states in NE & Himalayan Region	60:40 (Centre & State Govt.); 100% from Centre to UTs
5. Central Institute of Horticulture (CIH)-(2006-07)	NE states, focusing on HRD and capacity building	100% from Centre

ANNUAL ACTION PLAN (AAP)

3.2. The States / UTs will prepare the existing perspective/strategic plan and road map for overall development of horticulture crops including Bamboo in respective state, duly projecting the targets to be achieved during the XII Plan period. This will form the basis for preparing Annual Action Plan (AAP). The Annual Action Plan (AAP) needs to be supported with data/write up on outcome of past Interventions.

3.3. The Department of Agriculture and Farmers Welfare was asked to state whether any State and Union territory-specific Horticulture Development Plan under MIDH was drawn for achieving full potential of the State / UT towards the development of Horticulture Sector in the country and furnish details thereto. In this regard, the reply of the Department is reproduced below :

"MIDH scheme is being implemented through State Horticulture Missions (SHM) in accordance to the Annual Action Plan (AAP) submitted by the States every year. This Department communicates the tentative outlay for the year to States/UTs, which in turn indicate sector-wise allocation. District level agencies in the state prepares their AAP, keeping in view their priority and potential. State consolidates

these AAPs (including horticulture project proposals) and send to this Department for approval."

APPROVAL AND IMPLEMENTATION OF PROJECTS

3.4. Horticulture Division in Department of Agriculture and Farmers Welfare (DA&FW) will provide the necessary support to General Council (GC)/ Executive Committee (EC)/ Empowered Monitoring Committee (EMC) and will administer NHM, HMNEH, NBM and CIH Scheme. Managing Director (NHB) will oversee the programmes of NHB while Chairman, CDB will oversee the CDB Programmes. The existing structure of the Boards and Missions will be maintained to provide general direction for these programmes. EC/EMC will ensure smooth functional linkages among different agencies and meet as frequently, as required.

3.5. As per MIDH Operational Guidelines, approval for MIDH project(s) is accorded at five different levels as under :

- (i) MIDH Executive Committee (EC)*
 - (ii) Empowered Monitoring Committee (EMC)
 - (iii) Mission Director (MIDH)
 - (iv) State level Executive Committee (SLEC)
 - (v) State Mission Director, SHM / HMNEH / NBM,
- (* Projects of NHB & CDB will be approved by the respective Committees of these Boards)

3.6. The State Level Executive Committee (SLEC) of the respective States appraises and approves projects costing up to Rs. 500.00 lakh. The projects costing more than Rs. 500.00 lakhs are recommended by SLEC to Empowered Monitoring Committee (EMC) for consideration within the provision of scheme guidelines and allocation under Annual Action Plan (AAP). Approved projects by EMC are ratified by Chairman, EC.

3.7. Under National Horticulture Board (NHB), an applicant directly makes application to NHB for In-Principal Approval or Grant of Clearance before start of project. Subsidy claims are received from the financing banks of the projects upon completion of projects. Subsidy to the projects is released by NHB through the participating financing banks.

3.8. Under Coconut Development Board (CDB), there are two channels viz. (i) channel of implementation through State Govts, and (ii) direct implementation by Coconut Development Board. On approval of the allocation from the Ministry of Agriculture and Farmers Welfare, Government of India under MIDH, the Board proposes a State wise allocation based on the State wise area, production and productivity of coconut. The state wise allocation is perused and approved by the Board after approval the state level allocation is communicated to the APC/Principal Secretaries of the respective State Govts. for scheme implementation. Based on the State Level Administrative Approval from the State, funds are placed at the disposal of the State Govts. Then the schemes of the Board are implemented through state machinery under

guidance and monitoring of the CDB Offices. In direct channel, the Board implements various schemes as per the approved action plan directly through unit offices of the board. The implementation and monitoring of the scheme is done hand in hand coordination with respective State Govts.

3.9. CIH Institute implements all its programmes in North East States directly in collaboration with area specific state/central agencies like horticulture dept./ ICAR regional centers/ KVKs/ Agricultural Universities/ other GOI institutes. The mandate of the Institute is to provide Capacity building and trainings, Demonstration of improved production technologies, Production of quality planting material, Nursery accreditation and certification, Skill development & certificate courses, Promotion of organic cultivation of horticulture crops, Post-harvest management and value addition, Marketing & agri-business promotion, Follow-on extension support in the field of horticulture, Establishing convergence and synergy among programmes in the field of horticulture.

3.10. When asked about the timeline for submission and processing of MIDH Project proposals, the Committee were informed:

"No time line prescribed for submission of Project Proposals by States / Beneficiaries under MIDH. The project proposals which are complete in all aspects are placed before appropriate committee for appraisal and sanction whereas, in cases of incomplete proposals, it depends on the time taken by entrepreneur/State for furnishing the lacking documents/information."

3.11. The Department of Agriculture and Farmers Welfare was asked whether the concerned applicant is informed about the receipt / scrutiny / approval / sanction / rejection of his project proposal by the concerned authority. In this regard, the Committee were informed that *"Under MIDH at central level, projects are received from State Horticulture Missions (SHMs) duly approved by concerned SLEC. Hence, the approval or rejection of projects are informed to SHM. SHM further informed the concerned beneficiary about the same"*.

COVERAGE OF HORTICULTURE CROPS UNDER MIDH

3.12. The Department of Agriculture and Farmers Welfare was asked to furnish State/UT-wise data regarding horticulture crops promoted under *various* programmes. In this regard State/UT-wise details of horticulture crops promoted under MIDH as furnished by the Department are given at **Annexure - III**.

3.13. As per MIDH Operation Guidelines (Para 8.5) strengthening of Horticulture Statistical Database will be implemented on a project mode. On being asked about the State / Union Territory-wise data-compilation on important horticulture crops of the country, the Department of Agriculture and Farmers Welfare furnished reply, as under:

"The Department of Agriculture and Farmers Welfare compiles and publishes State-level estimates of area and production of horticulture crops. Separate estimates are provided at State/ All-India level for 77 important horticulture crops under broad crop groups of Fruits, Vegetables, Aromatic & Medicinal Plants, flowers, Plantation Crops, Honey and Spices. Data in respect of UTs and small States like Delhi and Goa are combined and released under 'others'. Before releasing the final estimates for an agriculture year, three advance estimates are also released at different intervals..."

3.14. To a query of the Committee seeking details whether any initiative was taken to compile State/UT-wise exhaustive data on all Horticulture Crops of the country, the Department of Agriculture and Farmers Welfare stated:

"The Horticulture Statistics Division of the Ministry compiles area and production estimates of horticulture crops from each State/UT. Based on the data thus collected three advance and a final estimate is released for every agriculture year estimates State/UT-wise, crop-wise. The same is uploaded in the Website of the Ministry in MS Excel file format at <https://agricoop.nic.in/en/StatHortEst>."

3.15. On being asked about the criteria for providing support under the MIDH Schemes / Programme, the DA&FW furnished reply, as follows:

"Under MIDH, selection of horticulture produce is solely lying with States as per the extant criteria laid down in the Operational Guidelines of MIDH. States formulates and submits Annual Action Plan as per their priority, potential, geographical conditions and climate, availability of land, SWOC (strength, weakness, opportunity and challenges) analysis, crops having comparative advantage and natural potential for development in the State, cluster based approach for production and linking with available infrastructure, etc. Sometimes, selection of horticulture produce are also varies from year to year depending upon special circumstances like natural calamities, recommendations of NITI Aayog and Group of Secretaries.

The restructured National Bamboo Mission (NBM) is implemented in non-forest Govt. land and private farmers field through those 24 States/UTs where it has social, commercial and economical advantage of bamboo sector. In addition to the promotion of Bamboo cultivation, the scheme envisaged to develop the value chain for bamboo and its products from production to the consumer marketing supported by the skill development and awareness creation activities."

FINANCIAL ASSISTANCE FOR MIDH PROJECTS

3.16. The Department of Agriculture and Farmers Welfare was asked about the details of support / financial incentive provided for horticulture development under MIDH. In this regard, the Department furnished the following:

1. Under MIDH scheme, support is being provided for Open and Protected cultivation, Seed, Nurseries, Organic farming, Bee keeping, Integrated Nutrient and Pest Management, etc.
2. Under “Integrated Post Harvest management” component of MIDH scheme, financial assistance is provided for setting up of Pack Houses, Pre-cooling Units, Staging Cold Rooms, Cold Storage Units, Refrigerated Transport Vehicles, Primary Processing Units, Ripening Chambers, etc for post harvest management of the horticulture produce.
3. Under “Establishment of Marketing Infrastructure for Horticulture Produce” component of MIDH, financial assistance is also provided for setting up of Terminal Markets, Wholesale markets, Rural Markets, Retail Markets, Mobile Vending Carts etc for marketing of the horticulture produce.
4. Promoting Primary and minimal processing for horticulture produce.
5. Encourage aggregation of farmers into farmer groups like FIGs/FPOs and FPCs to bring economy of scale and scope.
6. Support skill development and create employment generation opportunities for rural youth in horticulture sector.

FUND FLOW MECHANISM

3.17. As per the Operational Guidelines, Flow of funds and the utilization by the Implementing Agencies / SHMs / SBDA/ NLAs / PRIs etc from Government of India and utilization of funds shall be governed by extant financial norms. Funds will be released to the State Governments. State Government will release funds to the SHMs / State Level Implementing Agencies, who in turn would make funds available to DMC/ District Implementing Agency. As far as possible, efforts to make on-line payment to all Implementing Agencies would be ensured, which in turn will make arrangements for making payment to beneficiaries through electronic transfer, preferably to their respective bank accounts.

3.18. Implementing agencies would be required to undertake activities within the funds released by the GOI and corresponding state share in respect of NHM. No claims of pending liabilities relating to expenditure over and above released funds will be entertained by DAC.

3.19. On being about the options available for Implementing Agencies and Beneficiaries in case of incurring of excess expenditure over and above the sanctioned / released amount of funds a MIDH Project, the Committee were informed that "*there is no provision under MIDH Operational Guidelines for incurring of excess expenditure over and above the sanctioned / released amount of funds.*"

3.20. The Committee sought to know about the year-wise details of those MIDH Projects, if any, the implementation of which has been stalled due to non-release of funds /cost escalation /other factors since the launch of MIDH. In this regard, the reply of the Department is as given below :

"Under MIDH, funds are released to State Horticulture Mission (SHM) on the basis of Annual Action Plan (AAP) and utilization certificate submitted by SHM for earlier releases. Projects sanctioned at Central level is done within the provision of AAP for that component. MIDH Division has not received any report from SHM on the basis of which it could be concluded that any project has been stalled due to non-release of sanctioned financial assistance."

3.21. **Coordination among Implementing Agencies** - On being asked about the mechanism for coordination among different Implementing Agencies like Department of Agriculture and Farmers Welfare, Ministry of Food Processing Industries and other Ministries / Departments / National Level Agencies, etc., in the implementation of MIDH, the Department of Agriculture and Farmers Welfare replied :

"Mission for Integrated Development of Horticulture (MIDH) scheme is being implemented for holistic development of horticulture in the country. At National Level, Mission is having General Council under the Chairmanship of Union Agriculture Minister having Ministers and Secretaries of various Ministries/Departments including Ministry of Food Processing & Industries.

Similarly, Executive Committee (EC) headed by Secretary (A&FW) comprising Secretaries of various Ministries/Departments including Ministry of Food Processing & Industries (MoFPI). Further, there are Project Appraisal Committee (PAC) and Empowered Monitoring Committee (EMC) under MIDH for appraisal and approval of projects respectively. Both the Committees have members of different Departments/Ministries including MoFPI. Also, in the area of Post Harvest Management (PHM) particularly Cold Storage and Cold Chain, various ideas/inputs are exchanged from MoFPI from time to time."

3.22. **HORTNET PROJECT** - The Department of Agriculture and Farmers Welfare has informed that the HORTNET is a unique intervention to accomplish e-Governance in NHM where-in total transparency has been envisaged in all the processes of workflow i.e., online application filing, authentication, processing and online payment to the beneficiary's bank account through DBT. Web enabled work flow based system for providing financial assistance under MIDH.

3.23. The Department of Agriculture and Farmers Welfare was asked whether the e-governance System of HORTNET devised for monitoring of MIDH is fully functional and whether all Schemes of MIDH including processing of project proposals are monitored

through HORTNET System. In this regard, the Committee were furnished with written reply as under :

"HORTNET system is in position under MIDH scheme and presently is being used by 6-7 States, as the system is outdated. Therefore, a proposal for its renewal is under consideration in the Department. Efforts are being made to get the proposal approved and made the HORTNET System fully functional."

3.24. On being asked to explain the procedure followed in monitoring implementation of SC/ST Sub-plans under MIDH and also whether this aspect was monitored at National Level as well, it was stated:

"Progress of MIDH including SC/ST Sub-Plans is monitored, through review meetings and field visits by Joint Inspection Teams (JIT) to the various States. Accounts of SHMs are also audited every year to track expenditure under the Mission. Web based progress monitoring system is in place wherein physical and financial progress is uploaded on a monthly basis."

3.25. The Committee sought details regarding the average time taken for processing, approval, sanction, and execution of MIDH project proposals after submission of proposal by a prospective beneficiary in all five Schemes of MIDH and also about the steps taken / being taken for simplification of the procedure and for effective implementation of the projects under MIDH. In this regard, the reply furnished by the Department of Agriculture and Farmers Welfare is given below:

"There is no time limit prescribed for processing, approval, sanction, and execution of MIDH project proposals after submission of proposal by a prospective beneficiary under MIDH. The project proposals which are complete in all aspects are placed before appropriate committees for appraisal and sanction, whereas, in cases of incomplete proposals, it depends on the time taken by entrepreneur/State for furnishing the lacking documents/information. For effective implementation of the projects, on-line platform is being developed for processing of the projects".

CHAPTER-IV

IMPLEMENTATION OF MIDH SUB-SCHEMES

Sub-schemes of MIDH and the Implementing Agencies responsible for the implementation of the Schemes / project proposals are as under:

Sub-Schemes of MIDH	Implementing Agencies
1. National Horticulture Mission (NHM),	States / UTs / NLAs
2. Horticulture Mission for North East and Himalayan States (HMNEH),	
3. Central Institute of Horticulture (CIH),	CIH / NLAs
4. National Horticulture Board (NHB),	NHB / NLAs
5. Coconut Development Board (CDB)	CDB / NLAs
* SHM - State Horticulture Mission ; NLA - National Level Agency	

4.2. The broad demarcation of responsibilities of the Implementing Agencies of MIDH Schemes, as furnished by the Department of Agriculture and Farmers Welfare, are as under

(i) Horticulture Mission for North East and Himalayan States (HMNEH)

DA&FW is implementing a Centrally Sponsored Scheme - Horticulture Mission for North East and Himalayan States (HMNEH) since 2003-04. States covered under the schemes are Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim, Himachal Pradesh, Jammu & Kashmir, Ladakh and Uttarakhand. The Mission covers the entire spectrum of horticulture, right from planting to consumption with backward and forward linkages. With effect from 2014-15, HMNEH scheme has been subsumed under MIDH. At present, all North East and Himalayas States are covered under MIDH Scheme with funding patterns of 90:10 where GOI contributes 90% and State share is 10%.

(ii) National Horticulture Mission (NHM):

NHM was launched in the year 2005-06 and aims at the holistic development of the horticulture sector by ensuring forward and backward linkage through a cluster approach with the active participation of all stakeholders. A total of 384 districts in 18 States and 6 Union Territories were covered under NHM. Sixteen (16) National Level Agencies (NLAs) have also been included for providing support for developmental efforts which require inputs at the national level. Funding pattern for NHM States is 60:40 where GOI contributes 60% and State share is 40%.

(iii) National Horticulture Board

The National Horticulture Board (NHB) was set up by the Government of India in 1984 as an Autonomous Body under the administrative control of Ministry of Agriculture and Farmers Welfare and registered as a society under Societies Registration Act with its headquarters at Gurugram. Presently, NHB has 29 field offices located all over the country. The broad aims and objectives of the Board are to develop commercial horticulture through production and Post-harvest management of horticulture crops. The big projects which are not covered under NHM / HMNEH, are

covered under NHB, e.g. in open and protected cultivation projects, area should be atleast 4 ha. For Post-harvest management, projects of cold storages having capacity of more than 5000 MT and below 10000 MT are covered under NHB.

(iv) Central Institute of Horticulture (CIH), Nagaland

Central Institute of Horticulture, Medziphema, Nagaland has been engaged in the task of planning, coordinating, supervising and monitoring horticulture development activities. The programmes are executed through capacity building by training of trainers and farmers/beneficiaries; on & off farm demonstration of improved production technologies; production and supply of quality planting material; accreditation and certification of nurseries in NE region; promotion of organic cultivation of horticultural crops; agri-business promotion through exhibitions, seminars, workshops, exposure trips, buyers & sellers meet; value addition of horticultural crops; skill development, transfer of technology through method & result demonstration and coordination with state horticulture departments of NER and other National organizations, NGOs, farmers' group and self-help groups. "

PROGRESS IN THE IMPLEMENTATION OF HMNEH

4.3. **Financial Progress** - Details of Funds Allocation and Funds Release for Horticulture Mission for North East and Himalayan States (HMNEH), since 2014-15 onwards.:

Year	Allocation (BE)	Allocation (RE)	Released
2014-15	459	350	307
2015-16	350	300	325.99
2016-17	320	300	265.95
2017-18	600.47	552	539.66
2018-19	380	300	307.25
2019-20	415	294.5	216.28
2020-21	420	350	276.4
2021-22	450	347	141.08
2022-23 (as on 30/11/2022)	375.74	Not yet finalized	114.98

4.4. **Achievements** - The Department of Agriculture and Farmers Welfare furnished following details with regard to performance of the Scheme of HMNEH under the MIDH :

Major Components	Achievement before subsuming (from 2003-04 to 2013-14)	Achievement after subsuming (from 2014-15 to 2022-23*)
Area Coverage	705924	177889
Rejuvenation	46541	32955
Protd Cultivation	83837	27458
Adoption of Org Farming	5398	8273
Nurseries	1207	356
Water Resources	31743	10887
PHM	10	10105
Markets	63	1058
Beekeeping	83897	209579

Horticulture Mechanization	112244	102518
Training of Farmers	460699	204247

* for the data of the year 2021-22 & 2022-23 as till the 25 June 2022 (as per web-portal).

PROGRESS IN THE IMPLEMENTATION OF NHM

4.5. **Financial Progress** - Funds Allocation and Funds Release made for the National Horticulture Mission (NHM) since 2014-15 onwards as furnished by the Department of Agriculture and Farmers Welfare are as under :

Financial Achievements

Year	Allocation (BE)	Allocation (RE)	Released
2014-15	1399	1199.07	1143.11
2015-16	1070	938.31	851.15
2016-17	890	780	768.1
2017-18	1002.53	1002	913.9
2018-19	1209	1139	1091.2
2019-20	1217	1065	910.56
2020-21	1363.62	891.04	831.82
2021-22	1335.5	830.23	516.18
2022-23 (as on 30/11/2022)	1049.26	Not yet finalized	216.09

4.6. Achievements made under the National Horticulture Mission (NHM) since 2005-06 onwards as furnished by the Department of Agriculture and Farmers Welfare are as under :

Major Components	Achievement before subsuming (from 2005-06 to 2013-14)	Achievement after subsuming (from 2014-15 to 2022-23*)
Area Coverage	2345295	919723
Rejuvenation	490471	99754
Protd Cultivation	97397	219968
Adoption of Org Farming	200155	40381
Nurseries	2590	388
Water Resources	42426	33452
PHM	45306	87585
Markets	869	10731
Beekeeping	514374	1256201
Horticulture Mechanization	63874	131543
Training of Farmers	1136458	580154

* for the data of the year 2021-22 & 2022-23 as till the 25.06.2022 (as per web-portal).

CUMULATIVE ACHIEVEMENTS IN THE IMPLEMENTATION OF HMNEH & NHM

4.7. The Department Agriculture and Farmers Welfare, on being asked about the component-wise achievements under NHM & HMNEH from 2019-20 to 2021-22, furnished the following details :

S.No.	Component	Unit	2019-20	2020-21	2021-22
1	Area Coverage	Ha.	132779	171435	109387
2	Rejuvenation	Ha.	11688	12752	8347
3	Protected Cultivation	Ha.	32144	34084	11840
4	Adoption of Organic Farming	Ha.	2000	12503	7200
5	Creation of Nurseries	No.	142	93	18
6	Creation of Water Resources	No.	7406	6259	1820
7	Post Harvest Management	No.	13267	14627	7520
8	Creation of Market Infrastructure	No.	777	4746	1939
9	Pollination support through Beekeeping	No.	233412	216119	123507
10	Horticulture Mechanization	No.	27421	23419	9431
11	Training of Farmers	No.	105421	47183	24896

Source: as reported by State Govt. of MIDH web portal

A. IMPACT OF HMNEH & NHM ON FRUIT PRODUCTION

4.8. India has emerged as world leader in the production of a variety of fruits like mango, banana, guava, papaya, sapota, pomegranate, Lime & aonla and is the second largest producer of fruits and vegetables. With a production of 102.92 Million Tonne, fruits account for about 30.88% of total production of horticulture crops. The area under Fruit crops cultivation during 2021-22(1st Advance Estimates) was 6.96 Million Ha, which is 30.88% of total area under horticulture cultivation in India. The area under Fruit crops cultivation has increased from 5.15 Million Ha in 2004-05 to 6.96 Million Ha in 2021-22(1st Advance Estimates), with a corresponding increase in production from 50.98 to 102.92 Million Tonne. India accounts for about 11.38% (Source: Agriculture at a Glance, 2020) of the total world production of Fruits and leads in the production of Mango, Banana, Guava, Papaya, Lemon& Lime.

4.9. During 2021-22(1st Advance Estimates) Maharashtra occupied first position in terms of Fruit production with 12% share in total production followed by Andhra Pradesh with 11%, Uttar Pradesh with 7%, Gujarat, Madhya Pradesh and Karnataka with 6% shares. These States together contributed 48% of the total fruit production in the country. Banana is the most cultivated fruit accounting for 31.53% of total production, followed by Mango (19.75%), Citrus (13.74%), Papaya (5.28%), Guava (4.38%), Grapes (3.3%), Watermelon (3.11%) and others with 18.91 share in the country. Major Fruit crop-wise comparative statement (Area, Production, and Productivity) during 2004-05, 2013-14 and 2021-22 is given below :

(Area in '000 Ha / Production in '000 MT)

Sr. No.	Crops	2004-05			2013-14			2021-22 (1st Advance Estimates)		
		Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
1	Apple	231	1739	8	313	2498	8	313	2437	8
2	Banana	590	16745	28	803	29725	37	880	32454	37
3	Mango	1970	11830	6	2516	18431	7	2339	20336	9
4	Grapes	61	1565	26	119	2585	22	162	3490	22
5	Papaya	74	2535	34	133	5639	42	149	5744	39
6	Guava	161	1683	10	268	3668	14	307	4516	15
7	Pineapple	83	1278	15	110	1737	16	106	1808	17
8	Litchi	60	369	6	84	585	7	98	724	7
9	Sapota	134	1077	8	177	1744	10	80	834	10

10	Citrus Total	708	5932	8	1078	11147	10	1091	14150	13
11	Other Fruits	1084	6237	6	1515	10061	7	359	3592	10
12	Total	5155	50988	10	7116	87820	12	6967	102924	15

4.10. When asked to state the reasons for decline in area of production in 2021-22 in respect of some fruits like Mango, Sapota, Grapes, etc., the Committee were informed *inter-alia* as follows :

"The main reason for decline in area of production in 2021-22 is because of diversion of cultivation to some other profitable horticulture crops. These crops also faces many issues with regards to pest and diseases and low yield due to uncongenial climatic factors. In the year 2004-05, Maharashtra, with a productivity of 28.2 MT/ Ha. had a share of nearly 73% in the total area and nearly 80% in total production of grapes in the country. However, by 2021-22, the productivity of grapes in Maharashtra reduced to 21.5 MT/Ha with a share of 73% in the all-India area and 71% in all-India production. The reduction in productivity of grapes in Maharashtra with a reported increase of area (to the tune of 2.7 times) over the year is the main reason for the decline in productivity of grapes in the country over period from 2004-05 to 2020-21"

4.11. **Import** - To a query by the Committee regarding important fruit items that are **imported** in the country and the value of money outgo incurred during the last financial year and the steps taken or being taken to stop import of fruits, the Department of Agriculture and Farmers Welfare replied:

"The details of major/ important imported fruits and the value of money outgo incurred during the last financial year is as follows :

(000 MT, VALUE IN CRORE)		
Fresh fruits	2021-22 Qty	2021-22 Value
Apples	459.25	2866.2
Dates	434.35	1713.39
Other figs excluding fresh	21.94	1121.03
Oranges fresh or dried	165.81	717.29
Kiwi fruit	64.78	527.78
Walnuts	30.09	474.44
Pears	25.14	198.16
Other fruits, fresh	16.36	139.66
Grapes fresh	7.98	85.44
Other cherries	0.83	50.96
Mandarins (including tangerines and satsumas)	7.97	43.54
Plums and sloes , fresh	4.26	33.19
Avocados fresh or dried	1.22	26.45
Tamarind fresh	1.22	19.45
Cranberry bilbers & other of gnus vcinum, fresh	0.49	19.1
Pomegranates fresh	0.62	9.13
Others	56.62	2435.41
Dry fruits & nuts		

Cashew (in shell & shelled)	939.2	9338.37
Almond (in shell & shelled)	223.46	7387.03
Walnut (in shell & shelled)	30.09	474.44
Total (fresh fruits and dry fruits & nuts)	2491.69	27680.45

This department is trying to increase production of indigenous fruits so as to reduce import dependency, apart from using tariff measures like imposing, enhancing duty, so that import of the fruits which are available in the country is discouraged. Besides, port restrictions are also imposed to discourage import."

4.12. When asked about steps taken by the Department of Agriculture and Farmers Welfare to increase production of Walnut, Pear, Date Palms, Apple, etc. which can be cultivated in the Country but are imported, the Committee were inter-alia informed as under :

"In order to improve prosperity of horticulture growers by increasing the productivity of orchards through supply of genuine and quality planting material, this Ministry has decided to import Quality Planting Material of selected high value horticulture crops such as Apple, Walnuts, Almonds, Date Palm, Grapes and Kiwi as per the requirement of States, through National Seeds Corporation Limited (NSC), PUSA, New Delhi and PEQ facility for these imported horticulture crops will be created by ICAR institutes as per details given below:

S. No.	Institute Name	For
a)	Central Institute of Arid Horticulture (CIAH), Bikaner	Date Palm
b)	Central Institute of Temperate Horticulture (CITH), Dirang, Arunachal Pradesh	Apple, Walnut, Almond
c)	Central Institute of Temperate Horticulture (CITH), Mukteswar, Uttarakhand	Apple, Walnut, Almond
d)	Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST), CITH, Srinagar	Apple, Walnut, Almond

There is a total requirement of 1.37 crore number of planting material of Apple, Walnut, Almond, Date palm, Grapes and Kiwi during next five years.

NSC has floated Global Tender Enquiry (GTE) for import of identified horticulture planting material as per requirement received by States. In the 1st year, approx 10.64 lakh planting material (6.30 lakh Apple, 2.14 lakh Walnuts, 1.21 lakh Almond and 0.98 lakh Date palm) will be imported by NSC.,

ICAR institutes have submitted the project proposals for creation of PEQ facilities for identified crop at identified location, which is under process."

4.13. On being asked about the progress made by the National Seeds Corporation in the import / procurement and supply of planting material for Apple, Walnut, Almond and Date

Palm along with reasons for import instead of developing better variant domestically ICAR, etc., the Committee were given reply as under :

"The Global Tender Enquiry (GTE-03) was floated through NSC for import of required planting material of Apple, Walnut, Almond and Date-Palm, but process of the import of aforesaid planting material is dropped/stopped as per direction of DA&FW Vide Letter No. 35-2/2022-Hort, Tech-II (E-113602), Dated 29.11.2022. Universities/ICAR Institutes are involved in developing new variants/varieties."

4.14. **Export** - As regards important fruit items that are exported from the country, their money value during the last financial year and the steps taken to increase export of fruits, the Department of Agriculture and Farmers Welfare furnished the following data :.

"The details of major/ important **exported** fruits and the value of money earned during the last financial year is as follows-

(000 MT, VALUE IN CRORE)		
Fresh Fruits	2021-22 Qty	2021-22 value
Grapes fresh	263.08	2302.16
Bananas, fresh	376.57	1178.77
Pomegranates fresh	99.04	688.77
Oranges fresh or dried	119.55	406.16
Mangoes	27.87	327.45
Apples fresh	31.98	115.58
Walnuts	2.48	73.98
Lemons(citrus limon citrus limonum) & limes	18.52	66.35
Water melons	32.69	62.38
Pineapples fresh or dried	7.67	33.17
Tamarind fresh	4.92	32.62
Others	177.61	1157.08
Dry fruits & nuts		
Cashew (in shell and shelled)	75.42	3377.4
Almond (in shell & shelled)	1.13	45.44
Walnut (in shell & shelled)	2.48	73.98
Total (fresh fruits and dry fruits & nuts)	1241.01	9941.31

Department of Commerce has the mandate to promote exports of all the items/products/commodities from India. Agricultural and Processed Food Products Export Development Authority (APEDA) is established under DoC to promote the export of agricultural commodities and processed food products. In addition to APEDA, DOC has set up EPFs and commodity boards to monitor and promote agriculture exports, each having a specified work area/mandate A Farmer Connect Portal has been set up by APEDA on its website for providing a platform for FPOs, Cooperatives to interact with exporters."

4.15. When asked about the growth prospects for fruit production / cultivation in the country vis-a-vis demand and supply position, production and import and export of fruits, the Department intimated *inter-alia* as under :

"At present many number of fruits are imported due to scarcity of domestic production in the country to unable to meet the requirement of domestic market and consumption. There is a vast potentiality to bring more area under fruit crops it consorted efforts by all the agencies involved in the promotion of fruit cultivation.

To ensure holistic growth of horticulture, increase exports and reduce imports of high value horticulture crops, the Ministry of Agriculture and Farmers' Welfare launched the Horticulture Cluster Development Programme (HCDP) in May 2021 in Pilot phase. In the 1st phase, 12 horticulture clusters out of 55 clusters have been selected for the HCDP. The programme is being implemented through National Horticulture Board (NHB) of the Ministry of Agriculture & Farmers Welfare with the aims to grow and develop identified horticulture cultures to make them globally competitive. "

B. IMPACT OF HMNEH & NHM ON VEGETABLE PRODUCTION

4.16. India is the second largest producer of fruits and vegetables. The major Vegetable crops grown in the country are Potato, Onion, Tomato, Brinjal, Cabbage, Cauliflower, Okra, Peas, Tapioca, Chillies, and Radish etc. West Bengal is the leading *vegetable* producer in the country, contributing 14% to total production, while Uttar Pradesh is producing 12% of Vegetables in the country. Other leading vegetable producing States are Madhya Pradesh with 10%, Maharashtra with 9%, Bihar with 8%, Gujarat with 7%, Odisha with 6%, Chhattisgarh with 5%, Tamil Nadu with 3% and Haryana with 3%. Amongst Vegetables, Potato is the most cultivated vegetable accounting for 16.08% of the total production of Vegetables in the country, followed by Onion 9.34%, Tomato 6.09%, Brinjal 3.83%, Cabbage 2.88%, Cauliflower 2.78 %, Okra 1.92% and Peas 1.70% in the country.

4.17. Area under Vegetables has increased from 6.74 Million Ha in 2004-05 to 11.06 Million Ha in 2021-22 (1st Advance Estimates). Vegetable production has increased from 101.24 Million Tonne in 2004-05 to 199.88 Million Tonne in 2021-22 (1st Advance Estimates) having productivity of 18.06 Tonne per Ha. Major Vegetable crop-wise comparative statement (Area, Production & Productivity) during 2004-05, 2013-14 and 2021-22 is given in the **Table appended below** :

(Area in '000 Ha)

Sl. No	Crops	2004-05			2013-14			2021-22 (1st Advance Estimates)		
		Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
1	Potato	1524	28788	19	1973	41555	21	2208	53603	24.28
2	Onion	614	7761	13	1204	19402	16	1914	31129	16.26
3	Tomato	505	8825	17	882	18736	21	831	20300	24.43
4	Brinjal	527	8601	16	711	13558	19	744	12768	17.16
5	Cabbage	288	6114	21	400	9039	23	413	9606	23.26

6	Cauliflower	239	4515	19	134	8573	64	473	9283	19.63
7	Okra	357	3512	10	533	6346	12	523	6416	12.27
8	Peas	276	1945	7	434	3869	9	549	5680	10.35
9	Sweet Potato	133	1179	9	106	1088	10	106	1119	10.56
10	Tapioca	245	7463	31	228	8139	36	134	4742	35.39
11	Other Vegetables	2037	22544	11	2791	32592	12	1541	22555	14.64
	Total	6744	101246	15	9396	162897	17	9340	174598	18.69

4.18. **Import** - As regards details of important vegetable items that are **imported** in the country, money outgo incurred during the last financial year and the steps taken or being taken to stop import of vegetable items, the Department furnished reply as under :

"The details of major/important imported vegetables and the value of money outgo incurred during the last financial year is as follows-

(000 MT, VALUE IN CRORE)		
DESCRIPTION	2021-22 Qty	2021-22 Value
Onions fresh or chilled	28.51	106.06
Asparagus fresh or chilled	0.18	8.97
Kohrbi, kaleandsmlredblbrassicas, fresh/chilled	10.96	8.50
Garlic fresh or chilled	1.26	7.10
Potatoes fresh or chilled other than seeds	3.13	5.72
Sweet potatoes	0.12	0.63
H0rse radish	0.01	0.22
Carrots and turnips fresh or chilled	0.12	0.19
Green chilly	0.02	0.13
Othredblrts and tbrscontghghstrch	0.01	0.09
Celery other than celeriac fresh or chilled	0.00	0.06
Yams (dioscorea spp.)	0.01	0.04
Others	1.67	0.39
Total	45.99	138.11

Source: Department of Commerce

Vegetables are perishable items and Indian import of vegetable is meager as compared to its export (2.3%). However, to further dissuade imports, efforts are being made to increase domestic production."

4.19. **Export** - When asked about the important vegetable items that are **exported** from the country during the last financial year, their money value and the steps being taken to increase export of vegetables, the Committee were replied as under .

"The details of major/ important exported vegetables and the value of money earned during the last financial year is as follows-

(000 MT, VALUE IN CRORE)		
Description	2021-22 Qty	2021-22 Value
Onions fresh or chilled	1537.50	3432.16
Potatoes fresh or chilled other than seeds	407.56	614.91
Green chilly	52.37	310.47
Tomatoes fresh or chilled	89.63	208.78
Shallots fresh or chilled	22.70	107.59
Okra/lady finger (bhindi)	3.93	23.78
Garlic fresh or chilled	4.50	21.89
Yams	8.70	20.55
Manioc (cassava)	3.50	17.47

Pumpkins	5.12	11.29
Others	251.15	1213.04
Total	2386.67	5981.92

Source: Department of Commerce

In order to increase export of vegetables, efforts are being made to increase their domestic production."

4.20. On being asked about the growth prospects for vegetable production / cultivation in the country vis-a-vis demand and supply position, the Committee were furnished with the following reply :

"As regards vegetable crops on year to year basis (2020-21 vs 2021-22), there has been decline in import of following items i.e. shallots, onions, yams, reddish; whereas, during the same period there has been increase of export of items i.e. egg plants, radish, coccinia, bottle gourd etc. As such increased production/ cultivation of these fruits will have greater potential in reducing their import and increasing their export.

There is an immense opportunity available in the country to grow vegetables and fruit production under organic method of cultivation to enhance the export."

C. IMPACT OF HMNEH & NHM ON FLOWER PRODUCTION

4.21. Flowers and foliage are being used increasingly within domestic and international markets. The quality and price of flowers assumes importance, particularly in tapping the international market. Under MIDH, special emphasis is being placed on production of flowers under protected cultivation.

4.22. As per 2021-22(1st Advance Estimates), Floriculture covered an area of 0.26 Million Ha, with total production of 2.88 Million Tonne Flowers. This sector offers opportunities for generating income and employment, especially for women Noticeable advancements have been made in recent years in flower production, particularly, in the production of Cut Flowers, which have potential in terms of exports. The main Cut Flowers being grown are Roses, Orchids, Gladiolus, Carnation, Gerbera, Anthurium and Liliium.

4.23. The important Flower growing States are Tamil Nadu, Karnataka, Madhya Pradesh, Andhra Pradesh, Chhattisgarh, Gujarat and Uttar Pradesh. A major part of the area under flower cultivation is devoted to the production of Marigold, Chrysanthemum, Jasmine, Roses, Tuberose, etc. The area under Cut Flower cultivation has decreased significantly in the recent years. Comparative statement of flowers (Area, Production & Productivity) during 2004-05, 2013-14 and 2021-22 and top 5 States in production of flowers are given in the following**Tables**

Crop	Area in '000 Ha / Production in '000 MT					
	2004-05		2013-14		2021-22 (1st Adv. Estimates)	
Flowers	Area	Production	Area	Production	Area	Production
Total	116.00	2607.00	255.00	2297.00	0.26	2.38

Top 5 States in the Production of Flower crops in 2021-22

Area in '000 Ha / Production in '000 MT

S. No.	States	2021-22 (1st Advance Estimates)		
		Area	Production	Productivity
1	Tamil Nadu	42.92	521.24	12.14
2	Karnataka	37.68	517.61	13.74
3	Madhya Pradesh	30.07	350.88	11.67
4	West Bengal	29.73	293.23	9.86
5	Andhra Pradesh	17.51	279.84	15.98

4.24. When asked about the growth prospects for cultivation / trade in flowers in the country vis-a-vis demand and supply position, production and import and export of flowers, the reply of the Department of Agriculture and Farmers Welfare is as under :

"As regards floriculture on year to year basis (2020-21 vs 2021-22), there has been decline in import of items i.e. unrooted cuttings and slips of live plants, bulbs, tuber, tuberous roots and other cut flowers; whereas during the same period there has been increase of export of items i.e. bulbs horticulture, chicory, flowering plants.

The growth prospect of cultivation /trade in flowers in the country is very vast. In order to achieve the desired growth, there is a need to identify particular areas/ States to cultivate specific flower crops. India is bestowed with varied agro-climatic conditions which enables commercial production of number of flower crops (tropical, sub-tropical and temperate) to meet the growing domestic market as well as global market. Domestic market is worth 25,000 cr (approx) and still increasing with changes in social attitude and the habit of saying it with flowers.

Indian share in global flower trade is negligible as of now (Rs. 575 cr). There is huge scope to enhance our share in global trade. India is importing fresh flowers worth Rs. 120 cr. Which include bulbous ornamentals (tulips, daffodils etc) and tropical orchids which can be commercially grown in India (bulbous ornamentals in the states of J&K, Himachal Pradesh, Uttarakhand etc; whereas tropical orchids in Kerala, Tamil Nadu, some parts of Andhra Pradesh and Karnataka). Imports can be minimised by growing them indigenously."

4.25. To a query of the Committee seeking information whether the Government has any proposal to establish a separate Board for the promotion and support of cultivation and trade of flowers in the country, the Committee were furnished reply as under :

"There is no proposal under consideration of DA&FW to establish a separate Board for promotion and support of cultivation and trade of flowers in the country.

APEDA is body under Department of Commerce responsible for promotion of Floriculture products export from the country. The infrastructure available under government and private institute is sufficient to carry the responsibility in promoting flower cultivation in the country and there is a need to redefine the mechanism for promotion of flowers by various agencies."

D. IMPACT OF HMNEH & NHM ON MEDICINAL AND AROMATIC PLANTS

4.26. India is considered a treasure house of valuable Medicinal and Aromatic plants, which provide the raw material for the formulation of indigenous medicines apart from exports. There has been an appreciable increase in the area under medicinal plant cultivation and production of Medicinal and Aromatic plants over the last years. During 2020-21(3rd Adv. Est.), the total production of Aromatic and Medicinal plants have been 0.77 Million Tonne from an area of 0.65 Million Ha.

4.27. The Committee sought information about the Schemes / Programmes implemented for the promotion and support of Medicinal and Aromatic Plants under MIDH by the way of achievements in terms of (i) Production and availability (ii) Infrastructure / Market Development, (iii) International trade and (iv) funds allocation / utilization. In this regard, the reply of the Department of Agriculture and Farmers Welfare is reproduced below :

"Under MIDH, assistance is provided for area expansion of Aromatic Plants. Details of cost norms along with the pattern of assistance are as under:

S. No.	Name of the Component	Cost Norms	Pattern of Assistance
1	Cost intensive aromatic plants (patchouli, geranium, rosemary, etc.)	Rs. 1,00,000/ha	40% of cost, subject to a maximum of Rs.40,000/- per ha, for meeting the expenditure on planting material and cost of material for INM/IPM etc.
2	Other aromatic plants	Rs. 40,000/ha	40% of cost, subject to a maximum of Rs. 16,000/- per ha, for meeting the expenditure on planting material and cost of material for INM/IPM etc. For (i) and (ii) above, in the case of NE and Himalayan States, TSP areas, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% of cost.

Area, Production and productivity of Aromatic and Medicinal Plants since the inception of MIDH is as below:

Sl.No	Year	Area ('000 Ha.), Production ('000 MT)		
		Area	Prod.	Pdty.
1	2014-15	659.00	1000.00	1.52
2	2015-16	634.00	1022.00	1.62
3	2016-17	664.16	971.65	1.46
4	2017-18	720.28	866.37	1.20
5	2018-19	627.48	794.78	1.27
6	2019-20	641.46	734.11	1.14
7	2020-21	653.20	824.99	1.26
8	2021-22 (3 rd adv.est)	668.35	689.20	1.03

4.28. To a specific query of the Committee seeking details regarding status of the demand / supply for Gloria-Medicinal Plant and Schemes available for its cultivation, the following details were furnished by the Department of Agriculture and Farmers Welfare:

" As per the study carried out by Indian Council of Forestry Research and Education (ICFRE) supported by National Medicinal Plants Board (NMPB) entitled "Medicinal Plants in India: An Assessment of their Demand and Supply", published by D.K. Ved and G.S. Goraya in the year 2017 (Source: [https://www.nmpb.nic.in/sites/default/files/Projects/Medicinal Plants in India An Assessment of their Demand and Supply.pdf](https://www.nmpb.nic.in/sites/default/files/Projects/Medicinal%20Plants%20in%20India%20An%20Assessment%20of%20their%20Demand%20and%20Supply.pdf)). The estimated demand of *Gloriosa superba* is 100-200 MT per year.

Ministry of Ayush, Government of India had also implemented Centrally Sponsored Scheme of National Ayush Mission (NAM) to promote the cultivation of medicinal plants in identified clusters/zones through selected State Implementing agencies throughout the country in mission mode from the financial year 2015-16 to 2020-21.

PERFORMANCE OF DIRECTORATE OF CASHEWNUT AND COCOA DEVELOPMENT (DCCD)

4.29. The Directorate of Cashewnut Development established in 1966 as a primary field functionary under the Union Ministry of Agriculture gave a greater impetus for the development of cashew in a more scientifically oriented manner.....The Directorate of Cashew nut Development which was handling only cashew got the mandate for development of cocoa in 1997.

4.30. On being asked about the achievements of DCCD during the period from 2004-05 to 2013-14 in terms of (i) area expansion, (ii) Development of Nurseries and quality planting material, (iii) Marketing facilities/ linkages & (iv) Training manpower, the following details were furnished to the Committee:

"During the period from 2004-05 to 2013-14, DCCD had covered an area of 19,591 ha of cashew with high yielding varieties in cluster basis in the farmers' fields and 1538 ha in cocoa with hybrid seedlings. In order to increase the production and distribution of quality planting materials of cashew and cocoa, seventeen nurseries were established / upgraded by providing financial assistance. To promote rapid growth of cashew and cocoa development by narrowing the gaps in knowledge and skill, Directorate provided necessary provisions to give training to all the people involved in the cashew and cocoa sector and 14,690 people were trained. Target and achievement is given below:

Physical target and achievement (2004-05 to 2013-14)

Sl. No	Scheme	Target	Achievement
1	New planting programme of cashew and cocoa (ha)	40200	21129

2	Establishment/Upgradation of nurseries (Nos)	35	17
3	Farmers/unemployed women/youth/officers trained in various training programmes-skill development (Nos.)	18,100	14,690

4.31. The details of budgetary support for the DCCD and its Schemes and Programmes during the last three financial years including funds utilization, as furnished by the Department of Agriculture and Farmers Welfare is furnished at **Annexure- IV**.

4.32. When asked about the steps taken by the DCCD to promote Cashewnut and Cocoa in those States, where it is not cultivated, the Committee were furnished the reply as follows:

"The technical committee under the chairmanship of Director visited non-traditional states like Madhya Pradesh, Jharkhand and Nagaland and also non-traditional areas in cashew growing states and recommended the cultivation of cashew by considering all the parameters to grow commercially. Later series of meetings, seminars and trainings conducted to create awareness among farming community to showcase the benefits of cashew cultivation."

4.33. **Import / Export** - As regards, the important plantation crops that are **imported / exported** and the value of money outgo / income during the last financial year and the steps taken or being taken to stop import and increase exports, the Committee were furnished with information as under :

"The details of major/ important imported plantation crops and the value of money outgo during the last financial year is as follows-

	(000 MT, VALUE IN CRORE)	
	2021-22 Qty	2021-22 Value
Cashew (in shell only)	935.57	9145.17
Areca nut	4.11	101.94
Cocoa	29.22	545.42
Coconut	0	0
Total	968.90	9792.53

The details of major/ important exported plantation crops and the value of money earned during the last financial year is as follows-

	(000 MT, VALUE IN CRORE)	
	2021-22 Qty	2021-22 Value
Cashew (in shell only)	21.65	202.21
Coconut	12.26	54.34
Areca nut	1.61	52.52
Cocoa	0.06	2.76
Total	35.59	311.84

Source: Department of Commerce

Efforts are being made to increase domestic production so as to reduce import and transform into exporting country.

PERFORMANCE OF DIRECTORATE OF ARECANUT AND SPICES DEVELOPMENT (DASD)

4.34. The Directorate of Arecanut and Spices Development (DASD) was established on 01.04.1966 at Calicut to look after the development of spices and arecanut at National level. The Directorate has the mandate for the development of spices, arecanut, a large group of aromatic plants and betel vine grown in the country at the National Level.

4.35. As regards important achievements of **DASD** in terms of (i) area expansion, (ii) Development of Nurseries and quality planting material, (iii) Marketing facilities / linkages & (iv) Training manpower, the Department of Agriculture and Farmers Welfare stated *inter-alia* as under ::

"The Directorate is primarily involved in the production and distribution of quality planting material of high yielding varieties of spices and technology transfer programmes in association with State agricultural Universities and Central Institutes across the country. During the period 159.45 lakh seedlings of various planting materials and 3774.15 tonnes of seed materials were produced. The Directorate has established 64 nurseries and 102 seed storage and infrastructure units across the country. During the period, 121 seminars and 402 training programmes were conducted. Around 50,000 farmers were trained in spice cultivation during the period.

The above planting material programme has resulted in spread of high yielding varieties with intrinsic qualities which has significantly improved the productivity and production of spices in the country. During the period, the production has increased from 38.75 lakh tonnes to 63.62 lakh tonnes and productivity improved from 1579 kg/ha to 2016 kg/ha.

So far marketing facilities/Linkages are concerned, the Directorate of Marketing and Inspection (DMI) deals with the domestic marketing policies and spices board with export promotion."

4.36. The details of budgetary support for the DASD and its Schemes and Programmes and funds utilization during the last three financial years, as furnished by the Department of Agriculture and Farmers Welfare to the Committee are at **Annexure-V**. On being asked about the steps have been taken by the DASD to promote Arecanut and Spices in new States / areas, the reply of the Department is as given below:

"Due to the various development programmes implemented by Central Govt. up to VIII five-year plan, arecanut production in the country had reached self-sufficiency resulting drastic reduction of import of arecanut in the country and hence the Govt. of India had discontinued the programmes, especially area expansion and planting material production since IX Plan. However, Arecanut which was predominantly restricted to Kerala, Karnataka, Tamil Nadu and Assam is now

spreading to newer areas in the states of Arunachal Pradesh, Nagaland, Meghalaya and Tripura.

4.37. When asked about the growth prospects for cultivation / trade in plantation crops vis-a-vis demand and supply position, production and import and export of these crops, the Committee were furnished reply as under :

"As regards plantation crops on year to year basis (2020-21 vs 2021-22), there is no decline in import of any plantation crops; whereas during the same period there has been increase of export of items i.e. arecanut, coconut. As such increased production/ cultivation of these fruits will have greater potential in reducing their import and increasing their export. The growth prospect of cultivation and trade in plantation crops is tremendous in nature considering the diverse congenial climate available in the country. "

IMPACT OF MIDH ON SPICE CROPS

4.38. According to Department of Agriculture and Farmers Welfare, there are adequate provisions in MIDH to support cultivation of all the spices. Major programmes in MIDH for cultivation of spices are planting material production, area expansion (establishment of new garden), integrated pest and disease management, Integrated Nutrient Management, Organic farming, Mechanization, Integrated post-harvest management, development of market yards, technology dissemination through frontline demonstration, human resource development, organic certification, creation of water resources research etc."

4.39. India is the largest producer of Spices in the world. Spice production in India is currently estimated at 10.81 Million Tonne from an area of about 4.34 Million Ha. A wide variety of spices, like Black pepper, Chillies, Ginger, Turmeric, Garlic, Cardamom and a variety of tree and seed spices are being produced in India. The major spice producing States are Madhya Pradesh (33.30%), Rajasthan (10.76%), Gujarat (9.17%), Andhra Pradesh (7.36%), Telangana (7.33%) and Karnataka (6.89%).

4.40. The production of spices in the country has registered a substantial increase over the last five years. Garlic is the major spice crop, accounting for 29.65% of total spice production in the country. Ginger also accounts for 20.52% share in production, while Chillies accounts for 17.32% and Turmeric accounts for about 10.87% share in production. Spices are low volume high value crops which have the potential to provide better remuneration for farmers.

4.41. **Import** - On being asked about the important spice-items that are **imported** in the country, value of money outgo during the last financial year and the steps being taken to stop import of spices, the Committee were replied as under :

"Among the spices imported, Cassia and Star anise are the spices which are imported for domestic consumption as we don't have production for domestic use.

Pepper, Clove, Turmeric, Ginger, Cumin, Coriander, Cardamom (Small & Large), Nutmeg, Garlic etc are the spices imported into the country, though we have domestic production. These spices are imported mainly for value addition and re-export.

Major spices imported in the country along with the corresponding value of money outgo and the quantity are given below:

(000 MT, VALUE IN Rs. CRORE)		
Description	2021-22 Qty	2021-22 Value
Pepper	42.49	1485.31
Clove	22.51	1050.79
Cinnamon	31.66	752.07
Cardamom	7.26	423.59
Nutmeg	2.90	278.95
Turmeric	24.48	245.77
Fennel	5.52	188.75
Saffron	0.05	151.09
Coriander	15.60	136.47
Ginger	13.10	128.14
Cumin	4.49	73.51
Vanilla	0.05	60.38
Tamarind	1.26	19.94
Garlic	1.26	7.10
Mint	0.07	2.10
Ajwan	0.26	1.81
Fenugreek	0.02	0.72
Celery, Dill & Poppy	0.07	0.70
Total	173.06	5007.18

Source: Department of Commerce

Import of spices is mostly for re-export after processing. Efforts are being made to increase domestic production to reduce import of spices.

4.42. **Export** - Regarding important spice-items that are **exported** from the country during the last financial year, value of money earned and the steps being taken to increase export of spices. the DA&FW informed the Committee as under :

"Chilli, Cumin, turmeric, ginger, small cardamom, spice oils & oleoresins, curry powder/paste are the major items in spices export basket. The quantity exported and the foreign exchange earnings of spices and spice products are given below.

(000 MT, VALUE IN CRORE)		
Description	2021-22 Qty	2021-22 Value
Pepper	523.54	9011.93
Cumin	204.41	3095.93
Turmeric	153.15	1784.34
Cardamom	12.64	1533.58
Ginger	147.61	837.34
Coriander	48.66	482.51
Fennel	40.14	411.86
Fenugreek	32.40	262.86
Tamarind	36.48	229.64
Celery, Dill & Poppy	10.90	132.68
Nutmeg	1.69	119.12

Cinnamon	1.97	82.75
Clove	1.09	64.57
Ajwan	2.05	37.37
Vanilla	0.04	35.00
Garlic	4.50	21.89
Saffron	0.04	7.38
Mint	0.19	5.41
Total	1221.50	18156.17

Source: Department of Commerce

Efforts are being made to increase domestic production to increase export of spices.

4.43. As regards the growth prospects for spice production / cultivation in the country vis-a-vis demand and supply position, production and import and export of spices in the country, the Committee were informed:

"As regards spices on year to year basis (2020-21 vs 2021-22), there has been decline in import of items i.e. garlic, tamarind, cumin, fennel, mint, ginger, clove; whereas, during the same period there has been increase of export of items i.e. mint, cardamom, tamarind, fennel. As such increased production/ cultivation of these fruits will have greater potential in reducing their import and increasing their export.

In light of the growing demand of spices as immunity boosters, nutraceuticals, wellness products, etc., especially during pandemic and post-pandemic period, there is high prospect of increasing the area and production of spices in the country in the near future."

NATIONAL BAMBOO MISSION UNDER MIDH

4.44. The restructured National Bamboo Mission (NBM) was launched during 2018-19. The National Bamboo Mission was initially launched in 2006 and it was subsumed under MIDH during 2014. The focus of erstwhile NBM was on the increase of bamboo plantation and fund released during 2014-17 was only for the maintenance of the plantations created. During 2018, the NBM has been restructured and launched as a scheme under the National Mission on Sustainable Agriculture for the holistic development of the bamboo value chain. From 2018-19 to 2021-22, the scheme have been implemented by the NRM Division of DA & FW. Subsequent to the recommendation of Expenditure Finance Committee held on August 2021, the NBM has again been merged with MIDH w.e.f 1st April 2022. NBM focuses on the development of complete value chain of bamboo sector to link growers with consumers starting from planting material, plantation, creation of facilities for collection, aggregation, processing marketing, micro, small & medium enterprises, skill development and brand building initiative in a cluster approach mode.

4.45. Presently the scheme is being implemented in 24 States/UTs (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu, Kerala, Uttar Pradesh, Himachal Pradesh and

UT Jammu & Kashmir) in non-forest Govt land and private farmers field with the funding pattern of 60:40 between Centre and State Govt. for all States excepting NE & Hilly states, where it is 90:10 and 100% in case of Union Territories/R&D institutes/ Bamboo Technology support Groups (BTSGs) and National Level Agencies. **Financial progress** in the implementation of the Scheme is as under :

(Rs. in Cr)

Year	RE	Expenditure
2018-19	153.30	150.03
2019-20	87.00	84.51
2020-21	94.00	75.21
2021-22	70.00	20.58
2022-23*	65.00	--

*Separate budget head for NBM has been abolished based on the recommendation of EFC meeting.

4.46. **Physical Progress:** Since the launch of restructured NBM until 31.03.2022, Rs.330.19 Cr was released to the States including BTSGs. 23756 ha non-forest area has been planted with bamboo. 367 Nos. of Bamboo Nurseries, 78 Nos. of bamboo treatment and preservation (in nos.), 380 Nos. of Product Development and Processing units, 105 Nos. of Infrastructures for Bamboo Market, 1801Nos. of development of tools, equipment and machinery were achieved. 11959 persons were trained. 224 Nos. of Workshop/ seminar/ trade fairs/ exhibition activities and 237 Nos. of R& D activities were carried out.

Sr. No	Components		Achievements				
			2018-19	2019-20	2020-21	2021-22	Total
1	Propagation and Cultivation	Nursery (in nos.)	275	63	29	00	367
		Plantation (in ha)	8069	10262	5425	00	23756
2	Promotion of bamboo treatment and preservation (in nos.)		51	16	11	00	78
3	Product Development and Processing (in nos.)		225	60	95	00	380
4	Promotion and Development of Infrastructure for Bamboo Market (in nos.)		56	31	18	00	105
5	Development of tools, equipment & machinery (in nos.)		18	510	1273	00	1801
6	Skill Development and awareness campaign	Capacity Building Training (in no. of persons)	6115	3652	2192	00	11959
		Workshop/ seminar/ trade fairs/ exhibition (in nos.)	143	66	15	00	224
7	Research & Development (in nos.)		153	76	8	00	237

4.47. When asked reasons for NIL achievements under National Bamboo Mission in the year 2021-22, the Department of Agriculture and Farmers Welfare stated :

"Due to late submission of progress reports by States, the achievements reported was NIL. However, now States have reported achievements made during 2021-22. The details of achievements are given below:

Sr. No.	Components		Achievements
1	Propagation and Cultivation	Nursery (in nos.)	02
		Plantation (in ha)	916
2	Product Development and Processing (in nos.)		35
	i) Establishment of processing units for value addition of Bamboo (in Nos.)		10
	ii) Management of Bamboo waste in primary processing units		03
	iii) Handicrafts/Cottage industry		05
	iv) Furniture making		03
	v) Incense stick making		14
3	Promotion and Development of Infrastructure for Bamboo Market (in nos.)		01
4	Skill Development and awareness campaign	Capacity Building Training (in no. of persons)	160
		Workshop/ seminar/ trade fairs/ exhibition (in nos.)	14
5	Research & Development (in nos.)		10

4.48. The cost value of import of Bamboo based products during the last five years as furnished by the Department of Agriculture and Farmers Welfare, is as given below :

"Cost value of import of Bamboo based products during the last five years are given below:

(Qty in MT/ CUM, value in Crore Rs)

HS CODE	DESCRIPTION	Unit	2017-18		2018-19		2019-20		2020-21		2021-22	
			Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
14011000	Bamboos	Tonne	26910.5	183.4	29896.2	213.7	56204.0	439.3	73433.4	596.4	59158	471.582
33074100	Agarbatti And Other Odoriferous Prpns W hich operate By Burnin	Tonne	101047.9	547.5	104096.7	585.5	55148.1	288.0	3688.5	20.8	1057.1	8.28379
44092100	Non-coniferous wood of Bamboo	Tonne	361.8	5.7	310.3	6.0	151.6	3.7	448.3	9.4	1603.3	12.1498
44121000	Plywood of Bamboo	CUM	1359	2.8	675	2.2	1245	2.2	217	0.9	62	0.23147
44187300	Assembled flooring panels of Bamboo	Tonne	125.0	2.1	32.1	0.2	20.3	0.2	0.4	0.0	0	0
44189100	Other Builders' Joinery And Carpentry Of Wood Of Bamboo	Tonne	147.5	0.9	96.1	0.8	14.3	0.3	0.0	0.0	37.817	0.32955
	Total Import (Rs. in Cr)			742.4		808.3		733.8		627.5		492.6

Source: DGCIS

PERFORMANCE OF CENTRAL INSTITUTE OF HORTICULTURE (CIH) UNDER MIDH

4.49. The Central Institute of Horticulture, Nagaland was set up in the year 2005-06 under Central Sector Scheme to provide institutional support for development of horticulture in North Eastern States of India. The Institute provides a number of programmes for the benefit of the farming community in NE States. The Institute regularly conducts trainings & skill development courses, technology demonstrations, quality planting material production, nursery accreditation, protected cultivation, post harvest management and marketing for the welfare and betterment of the farming community.

4.50. When asked about the important achievements of Central Institute of Horticulture (CIH) during the period from 2004-05 to 2013-14, the Department of Agriculture and Farmers Welfare informed *inter-alia* as under :-

"Central Institute of Horticulture, Nagaland was started in 2006 and the programmes of the Institute are implemented as per the Annual Action Plan of the Institute w.e.f 2008-2009 to 2012-2014.

The major targets and achievements of CIH w.e.f. 2006- 2014 are placed below:

1. TRAINING OF FARMERS AND OFFICIALS OF NORTH EAST REGION

Year	Targets (No. of trainings)	Achievement
2006-2007	Nil	4 (827 farmers & officials)
2007-2008	Nil	7 (435 farmers & officials)
2008-2009	12 nos.	36 (826 farmers & officials)
2009-2010	88 nos.	32 (2046 farmers & officials)
2010-2011	65 nos.	42 (2491 farmers & officials)
2011-2012	50 nos.	64 (4890 farmers & officials)
2012-2013	48 nos.	53 (4036 farmers & officials)
2013-2014	96 nos.	35 (805 farmers & officials)
Total trainings conducted	359 nos.	273 (16356 farmers & officials)

2. PRODUCTION OF QUALITY PLANTING MATERIAL

2.a. Establishment of mother block within the Institute

Targets: 7 ha : Achievements: 6.23 ha

2.b. Quality Planting Material Production

Sl. No.	Year	Details	Targets (In No.)	No. of rootstock raised(In No.)
1	2009-10	Raising of rootstocks & propagation	10,000	25,800
2	2010-11	Raising of rootstocks & propagation	27,000	26,000 .
3	2011-12	Raising of rootstocks & propagation	10,000 .	31,000
4	2012-13	Raising of rootstocks & propagation	64,000	47,550
5	2013-14	Raising of rootstocks & propagation	1,50,000	1,19,707

3. DEMONSTRATIONS OF IDENTIFIED TECHNOLOGIES FOR NER

A On farm demonstration			
Sl	Year	Targets	Achievement
1	2006-2007	Focused on establishment of mother block	Focused on establishment of mother block
2	2007-2008	Focused on establishment of mother block	Focused on establishment of mother block
3	2008-2009	4 ha	04 ha
4	2009-2010	2 ha	01 ha
5	2010-2011	3 ha	2.375 ha
6	2011-2012	8 ha	4.25 ha
7	2012-2013	3 ha	3.775 ha
8	2013-2014	8.9 ha	6.2 ha
Off farm demonstration			
Sl	Year	Targets	Achievement
1	2008-2009	21 ha	03 ha

2	2009-2010	10 ha	02 ha
3	2010-2011	12 ha	02 ha
4	2011-2012	10 ha	02 ha
5	2012-2013	16 ha	14 ha
6	2013-2014	4 ha	03 ha

4. AGRI BUSINESS PROMOTIONAL ACTIVITIES (Exhibitions, market linkage initiatives, seminars, workshops, buyers & sellers meet etc)

SI	Year	Targets	Achievement
1	2009-2010	10no.	8 nos.
2	2010-2011	5 nos.	6 nos.
3	2011-2012	8 nos.	11 nos.
4	2012-2013	8 nos.	8 nos.
5	2013-2014	8 nos.	4 nos.

5. EXPOSURE TRIP OF FARMERS & OFFICIALS

SI	Year	Targets	Achievement
1	2010-2011	2 nos.	2 nos.
2	2011-2012	8 nos.	6 nos.
3	2012-2013	4 nos.	4 nos.

4.51. As regards budgetary support for the CIH and its Schemes and Programmes during the last three financial years including funds utilization, the Department of Agriculture and Farmers Welfare *inter-alia* furnished by the following details :

HEAD OF ACCOUNT	Expenditure statement for the year 2019-20, 2020-21 & 2021-22								
	2019-20			2020-21			2021-22		
Major Head-2401	[RE - Revised Estimate			[RE - Revised Estimate			[RE - Revised Estimate		
248-Crop	LOC - LOC Received			LOC - LOC Received			LOC - LOC Received		
Husbandry	E - Expenditure]			E - Expenditure]			E - Expenditure]		
55-Green Rev.-									
Kris. Yojn.									
03-Estt. of CIH									
Grand Total	RE	LOC	E	RE	LOC	E	RE	LOC	E
	715.75	551.34	365.35	700.31	654.68	388.45	797.24	741.02	514.23

4.52. The Department of Agriculture and Farmers Welfare furnished following details in regard to performance of Central Institute of Horticulture (CIH), Nagaland under the MIDH :

Major Components	Achievement before subsuming (till 2013-14)	Achievement after subsuming (From 2014-15 to 2021-22)
Trainings & Capacity building	273 Nos.	291 Nos.
Production of quality planting material	250057 Nos.	507597 Nos.
Demonstrations of improved production technologies	21.60 Ha.	64.52 Ha.
PHM/marketing & Agri-Business Promotion	37 Nos.	82 Nos.
Accreditation & Certification of Nurseries	-	64 Nos.
Certificate Course	-	10 Nos.
Skill Development Course	-	18 Nos.
Publications – Annual report & other publications	108 Nos.	68 Nos.

CHAPTER-V

IMPLEMENTATION OF SCHEMES BY NATIONAL HORTICULTURE BOARD UNDER MIDH

The National Horticulture Board (NHB) was established in the year 1984 by the Government of India as an autonomous organization and registered as a society with the Registrar of Firms and Societies, Chandigarh with its headquarters presently in Gurugram and 29 field offices located all over the country. The broad aims and objectives of the Board are the creation of production hubs for Commercial Horticulture development, post harvest infrastructure and cold chain facilities, promotion of new crops, and promotion of Growers' associations.

SCHEMES AND PROGRAMMES OF NHB

5.2. According to Department of Agriculture and Farmers Welfare, the National Horticulture Board is implementing the following schemes :

1) Development of Commercial Horticulture through Production and Post Harvest Management

Open Field Cultivation: Under this scheme Board is providing Credit linked back ended subsidy @ 40% of the total project cost limited to Rs. 30.00 lakhs per project in general areas and @ 50% of Project Cost limited to Rs. 37.50 lakh in NE region, Hill States and Scheduled areas for open field cultivation of various fruit crops for projects more than 5 acres.

Protected Cultivation: Under this scheme Board is providing Credit linked back ended subsidy @ 50% of the total project cost limited to Rs. 56.00 Lakh Per Project for protected cultivation Projects for Projects more than 2500 Sq.mt. (Board is permitted to take up projects under protected cultivation in an area of 1000 sqm. and above in NE States).

Post Harvest Management: Under this scheme Board is providing Credit linked back ended subsidy @ 35% of the total project cost limited to Rs. 50.75 lakh per project in general areas and @ 50% of Project Cost limited to Rs. 72.50 Lakh in NE, Hill States and Schedules areas for Postharvest Management Projects/Components..

2) Capital investment subsidy scheme for construction/expansion/modernization of cold storages for Horticulture Produce

Under this scheme Board is providing 35% subsidy of the capital cost of project in general areas and 50% in case of NE, Hill States and Scheduled Areas for setting up Cold Storages and CA Storages for a storage capacity above 5000 MT upto 10000 MT (Board is permitted to take up cold storage projects in NE Area for capacity of 1000 MT or above).

3) Technology Development and Transfer for Promotion of Horticulture

Under this scheme, the Board is also providing grant-in-aid for popularization of identified new technologies/tools/techniques for commercialization and adoption through following subcomponents of the scheme:

- (i) Setting up of block / mother plant and root stock nursery (Area above 4 ha).
- (ii) Acquisition of technologies including import of planting material to increase production & productivity of horticulture crops.
- (iii) Import/Procurement of machine & tools for horticulture for demonstration purpose.
- (iv) Development & Transfer of Technology.
- (v) Long Distance Transport Solution.
- (vi) Product Promotion and Market Development Services- Horti-fairs.
- (vii) Exposure visit of farmers (Outside State).
- (viii) Visit Abroad for Government Officers.
- (ix) Organization/Participation in Seminar/symposia/workshop for development of horticulture.
- (x) Accreditation and Rating of Fruit Plant Nurseries.

4) Market Information Service for Horticulture Crops

This scheme deals with work of computerization, development of technology package, data feeding, information dissemination through publicity, printed literature local advertisements etc. Scheme provides for engagement of outsourced staff such as Senior Programmer, Programmer, Data Entry Operators and Horticulture Assistant as per need at approved rates under TSG component of MIDH

5) Horticulture Promotion Services/ Expert Services and Strengthening Capability of NHB

Under this component, specialized studies and surveys shall be carried and study/ survey reports shall be brought out for use by targeted beneficiaries. In addition, technical laboratories shall be set up or cause to be set up and also provide technical services including advisory and consultancy services.

PERFORMANCE OF NHB IN THE INTERVENTION OF INTEGRATED POST HARVEST MANAGEMENT

5.3. According to Department of Agriculture and Farmers Welfare, a study on Harvest and Post-harvest losses commissioned by Ministry of Food Processing Industries and carried out by Central Institute of Post-Harvest Engineering & Technology (CIPHET), Indian Council of Agricultural Research (ICAR), was published in 2015. As per this report quantum of quantitative harvest and post-harvest losses in selected crops were observed to be in the range of 6.70% to 15.88% (fruits) and 4.58% to 12.44% (vegetables). When asked about the details regarding post-harvest facilities that are available for processing/marketing of

important fruits particularly during surplus production / yields, the Department of Agriculture furnished reply stating *inter-alia* as under :

"The processing of all the surplus F&V is vital for marketing of these products and their usage in Allied food industry. All major production and marketing companies have developed products like juices, Potato Chips, Frozen Peas and Frozen Corn (Pepsi, Godrej, Real, ITC, Mother dairy etc) where processed fruits and vegetables are used. Various jams and confectionary units like (Parle, Perfetti) use mango, litchi, strawberry frozen pulp in their products for better marketing and these products have enormous demand and sale in market.

For the purpose of processing, all Integrated cold chain projects have mandatory minimal processing centres and necessary post-harvest processing units sanctioned and are available in the market to overcome the short shelf-life scenario of these products. In terms of classification following Processing facility are in use -

- ✓ Banana Ripening Rooms
- ✓ Mango Pulping and Blast Freezing
- ✓ Apple crushing and Juicing Plants
- ✓ Strawberry, Litchi, Sweet Corn and white Corn Blast freezing
- ✓ Individual Quick Freezing (IQF) for Peas, cottage cheese cubes
- ✓ Spiral Freezing unit for Ready to eat food
- ✓ Potato Chipping and Processing
- ✓

The Ministry of Food Processing Industries (MoFPI) has been incentivizing private investment for strengthening of post- harvest processing & preservation infrastructure for all agro-horti produce including fruits through capital subsidy under its Central Sector Umbrella Scheme – Pradhan Mantri Kisan SAMPADA Yojana (PMKSY) and centrally sponsored PM Formalization of Micro Food Processing Enterprises Scheme (PMFME).

5.4. On being asked about the steps being taken by the Department of Agriculture and Farmers Welfare to address the issues relating to Post-harvest losses, the Committee were informed as under :

"In order to reduce post-harvest losses, DA&FW is implementing Mission for Integrated Development of Horticulture (MIDH) under which financial assistance is provided for taking up various activities related to development of horticulture including post-harvest management which includes establishment of Pack house, Pre-cooling unit, Cold Storage, Mobile Pre-cooling unit, Cold Room (Staging), Primary/ Mobile/ Minimal Processing unit, Ripening Chamber, low cost onion storage structure etc. The components are demand/ entrepreneur-driven from among entrepreneurs, private companies, cooperatives, farmers groups etc through commercial ventures for which assistance at the rate of 35% of admissible project

cost in general areas and 50% in hilly and scheduled area is available as credit linked back ended subsidy through respective State Horticulture Missions.

In case of Primary/ Mobile/ Minimal Processing unit subsidy @ 40% (for general areas) and 55% (for hilly and scheduled areas) of capital cost of the project is available for both public and private sector enterprises. "

5.5. The Department of Agriculture and Farmers Welfare was asked to justify that the steps taken by the Department would effectively address the issue of Post-harvest losses in horticulture sector. In response the Committee were furnished reply as under :

"Under MIDH, assistance is provided for establishment of infrastructure relating to cold chain management viz. pre-cooling units, on farm pack houses, mobile pre-cooling units, staging cold rooms, cold storage units, integrated cold chain supply system, refrigerated vans/containers, primary/mobile processing units, ripening chambers etc.

Since inception of MIDH i.e. from 2014-15 under the components of Post-Harvest Management, 95695 units including pack houses, cold storage units, refrigerated vans, primary/ mobile processing units, ripening chambers, pre cooling units attached to cold storages and mobile pre cooling units have been established. These infrastructure reduces post-harvest losses. However, there is no recent study/data for justification of effective post-harvest losses."

PERFORMANCE OF NHB IN THE INTERVENTION OF ESTABLISHMENT OF COLD CHAIN INFRASTRUCTURE

5.6. The Department of Agriculture and Farmers Welfare has set up an Integrated Cold Chain Availability Platform, which is presently hosted on the website of NHB. This portal facilitates all the governmental agencies e.g., MIDH, NHB, APEDA, MoFPI and NCDC to upload the data of subsidies released by them for cold chain components e.g. Cold Storages, pre-cooling units, pack house, reefer trucks, ripening chambers."

5.7. "Ministry of Agriculture is implementing MIDH scheme under which financial assistance is available for setting up of cold storages for perishable horticultural produce throughout the country including remote areas also. The component is demand/ entrepreneur-driven from among entrepreneurs, private companies, cooperatives, farmers groups etc through commercial ventures for which assistance at the rate of 35% of admissible project cost in general areas and 50% in hilly and scheduled area is available as credit linked back ended subsidy through respective State Horticulture Missions."

5.8. The Committee sought details of National Level Agencies (NLAs) engaged for 'Creation of Cold Storages' and overall Year-wise Financial and Physical achievements made under this MIDH-Major Intervention since the launch of MIDH. In response, the

Department of Agriculture and Farmers Welfare furnished reply stating inter-alia as given below :

"Department of Agriculture & Farmers Welfare is implementing Mission for Integrated Development of Horticulture (MIDH) under which financial assistance is provided for various horticulture activities including setting up of cold storages through respective State Horticulture Mission (SHM). Under the scheme, Cold Storage/Cold chain can be set up by entrepreneurs, groups of entrepreneurs, private companies, cooperatives, farmers groups, Farmers Producer Organization (FPOs), Self Help Groups (SHGs), National Level Agencies (NLAs) etc. through commercial ventures. The component is demand/ entrepreneur-driven through commercial ventures for which financial assistance is available as credit linked back ended subsidy. "

5.9. As per the Department of Agriculture and Farmers Welfare, the details of State wise cold storage projects sanctioned from 2014-15 to 2021-22 under MIDH, are as follows :

(Rs. In Lakh)

S. No.	State	No. of Projects	Capacity in MT	Assistance Sanctioned
1	Andhra Pradesh	53	305702	6874.81
2	Arunachal Pradesh	0	0	0.00
3	Assam	9	70594	2506.65
4	Bihar	4	27172	651.42
5	Chandigarh	1	246	24.60
6	Chhattisgarh	10	51185	1622.14
7	Delhi	0	0	0.00
8	Goa	0	0	0.00
9	Gujarat	401	1782700	60832.51
10	Haryana	60	211940	7663.85
11	Himachal Pradesh	41	84929	8932.20
12	Jammu & Kashmir	41	188284	30285.93
13	Jharkhand	3	19400	585.58
14	Karnataka	28	145641	3683.68
15	Kerala	1	1300	45.50
16	Madhya Pradesh	39	206599	5374.66
17	Maharashtra	40	145174	4870.48
18	Manipur	1	1600	80.00
19	Meghalaya	0	0	0.00
20	Mizoram	0	0	0.00
21	Nagaland	0	0	0.00
22	Odisha	65	237682	8077.15
23	Punjab	103	427413	15958.87
24	Rajasthan	23	104717	3279.99
25	Sikkim	1	100	300.00
26	Tamil Nadu	9	64469	1244.57
27	Telangana	24	146349	3327.51
28	Tripura	4	11959	254.02
29	Uttar Pradesh	234	1143148	31022.10
30	Uttrakhand	13	28666	4288.75
31	West Bengal	5	11294	254.71
	Total	1213	5418263	202041.67

5.10. When asked for reasons for vast variations in Cold Storage Capacity between different States / UTs and about the steps being taken to bridge the gap among States /UTs under MIDH, the Committee were informed that *"the establishment of Cold storages are demand / entrepreneur-driven and being set up by entrepreneurs, private companies, cooperatives, farmers groups etc through commercial ventures as per their demand and requirement."*

PERFORMANCE OF NHB IN CLUSTER DEVELOPMENT PROGRAMME

5.11. **Cluster Development Programme** - To a query seeking State/UT-wise details of the 12 pilot projects implemented by the NHB *along* with progress thereon, the reply of the Department is reproduced below :

"It may be noted that total 12 clusters and 7 focussed crops have been selected for implementation of Cluster Development Programme in pilot phase which includes the following clusters and focussed crops therein:

Kutchh (Gujarat), Mahabubnagar (Telangana) and Lucknow (Uttar Pradesh) for Mango, Sepahijala (Tripura) for Pineapple, Chitradurga (Karnataka) and Solaupur (Maharashtra) for Pomegranate, Shopian (Jammu & Kashmir) and Kinnaur (Himachal Pradesh) for Apple, Theni (Tamil Nadu) and Ananthapuram (Andhra Pradesh) for Banana, Nashik (Maharashtra) for Grapes and West Jaintia Hills (Meghalaya) for Turmeric.

Present status of Cluster Development Programme is as under:

- a) Tripartite Agreement between National Horticulture Board, State Governments and Cluster Development Agencies for all the respective clusters have been completed
- b) Cluster Gap Assessment Reports have been finalised for all the 12 clusters
- c) Outreach activities including press release, social media posts, newspaper ads, Krishi melas have been undertaken for information dissemination among farmers and private sector
- d) Convergence with MoFPI wherein the identified clusters have been given preference for developing agro processing clusters
- e) Online dashboard has been developed for uploading of applications and programme monitoring.
- f) Request for Proposals (RFPs) have also been floated/ published by the CDA for selection of Implementing Agencies (IAs) for implementation of different verticals under the Cluster Development Programme. IAs shall be onboarded by August-September 2022 in all the clusters."

5.12. The Committee sought to know the difference between the Horticulture Cluster Development Programme (HCDP) and the MIDH-Major Intervention of 'Centre of Excellence and also the State / UT-wise details regarding implementation of these programmes along

with reasons for non-coverage of some State(s) / UT(s) under any of these Programmes. In this regard, the Committee were furnished written reply as under:

"Horticulture Cluster Development Programme (HCDP) has been launched to ensure holistic growth of horticulture, increase exports and reduce imports of high value horticulture crops. It aims to address the challenges and enhance the global competitiveness of the Indian horticulture sector. HCDP is designed to leverage the geographical specialization of horticulture clusters and promote integrated and market-led development of pre-production, production, post-harvest, logistics, branding and marketing activities. In the 1st phase, 12 pilot clusters in 11 States have been identified for the programme. Since the HCDP has been launched in 12 identified clusters on pilot basis only, this Ministry may consider other crop clusters in other States also at the time of scaling up of the programme on the basis of output and outcomes of the implementation of the pilot phase. List of 12 Clusters are at **Annexure- VI**.

The Centres of Excellence (CoEs) are focused for introduction of improved varieties/ cultivation, demonstration of modern production techniques in horticulture sector, skill development and capacity building. Various latest technologies for development of horticulture are being demonstrated to farmers and field staff of concerned states at these Centres. The establishment of CoE is demand driven. However, States are advised to make provision for establishment of CoE in their AAP as per the requirement of State. At present, 44 CoEs in 17 States are being established in cooperation with Israel and Netherlands. Out of this, 31 CoE sare completed. State/UT-wise details of these CoEs are at **Annexure-VII**."

PROGRESS IN IMPLEMENTATION OF MIDH SCHEMES

5.13. The Department of Agriculture and Farmers Welfare furnished following details with regard to performance of schemes under the National Horticulture Board (NHB) under the MIDH :

" Comparative financial analysis of performance of NHB during the period 2014-15 to 2021-22 vis-à-vis 2006-07 to 2013-14 is as below:

(Rs in Crore)

Achievements in 8 years from 2006-07 to 2013-14		Achievements in 8 years from 2014-15 to 2021-22	
Year	Achievements	Year	Achievements
2006-07	112.49	2014-15	206.02
2007-08	122.47	2015-16	277.93
2008-09	124.36	2016-17	259.57
2009-10	143.78	2017-18	362.6
2010-11	153.84	2018-19	282.21
2011-12	137.41	2019-20	132.74
2012-13	134.13	2020-21	107.15
2013-14	289.91	2021-22	106.82*
Total	1218.39	Total	1628.2

*including grants received on 31.3.2022

5.14. The details of budgetary support for the NHB and its Schemes and Programmes during the last three financial years including funds utilization, as furnished by the Department Agriculture and Farmers Welfare are as under :

"[The relevant details of BE, Grants in aid received (RE) and expenditure incurred for the period from 2019-2020 to 2021-22 (upto 31.03.2022).]

Amount (Rs. In crore)

Year	Budget Sanctioned (Revised Estimate)	Grants in aid received (RE)	Expenditure incurred
2019-20	352.00	27.50	132.74
2020-21	170.00	101.75	107.15
2021-22	190.00	106.82*	77.50

*Rs. 10.00 crore (Rs. Ten Crore received in next financial year i.e. 02.04.2022)

Note: Excess expenditure incurred from the unspent funds available at the beginning of the financial year.

5.15. On being asked about the reasons for declining trend in the implementation of Schemes, the Department of Agriculture and Farmers Welfare submitted inter-alia as under :

"Some decline in the financial achievements was noticed after 2019-20 that was mainly due to change in the design of the Scheme which led to sanction of lesser number of projects. The Scheme design was accordingly reviewed and amended. After revision in the Scheme design, NHB is regaining its past performance. The budget allocation to NHB during current financial year is Rs 300.00 crores, out of which an amount of Rs 140.78 lakh have so far been spent. Further, the scheme design, documentation and sanctioning process has again been simplified to attract more projects and speed up the sanctioning process. In addition, new programmes i.e. Horticulture Cluster Development Programme and Clean Plant Programme have also been added in the ambit of NHB."

CHAPTER-VI

IMPLEMENTATION OF MIDH SCHEMES BY COCONUT DEVELOPMENT BOARD

Coconut Development Board (CDB), Kochi is a statutory body established by Govt. of India by an Act of Parliament (Coconut Development Board Act 1979) and came in to existence in January 1981. The thrust areas of Coconut Development Board programmes under MIDH are: production and distribution of quality planting material, expansion of area under coconut cultivation especially in potential and non-traditional areas, improving the productivity of coconut in major coconut producing States, developing technology in post-harvest processing and marketing activities, product diversification and by-product utilization of coconut for value addition, dissemination of information and capacity building in coconut sector.

6.2. India stands first in global coconut production. Coconut is cultivated in 2.18 million ha in 23 States and Union Territories with a production of 21129.62 million nuts. Four Southern peninsular States viz., Kerala, Tamil Nadu, Karnataka & Andhra Pradesh contribute about 90 % of area & production. About 85% coconut holdings are owned by small and marginal farmers in the country (less than 2 ha). 12 million people depend on coconut for their livelihood. The Annual GDP contribution by coconut is more than Rs. 29581.50 cr. The export earnings during 2020-21 was recorded as Rs. 6073.80 cr. (Rs. 2294.81 cr. from coconut & coconut products other than coir).

SCHEMES AND PROGRAMMES OF CDB

6.3. According to the Department of Agriculture and Farmers Welfare, the major programmes (Mission Interventions) that are being implemented by the Coconut Development Board are :

Sl. No.	Schemes / Programmes & Scheme Components
I.	Production and Distribution of Quality Planting Materials a) Establishment of Demonstration cum-Seed Production Farms (b) Establishment of Regional Coconut Nurseries (c) Establishment of Nucleus Coconut Seed Garden (d) Establishment of Small Coconut Nurseries
II.	Expansion of Area under Coconut
III.	Integrated Farming in Coconut holdings for productivity improvement (a) Laying out of Demonstration Plots (b) Aid to Organic Manure Units
IV.	Technology Demonstration/Quality Testing Lab
V.	Marketing, Market Intelligent Services, Statistics & Strengthening of Export Promotion Council
VI.	Information and Information Technology
VII.	Technology Mission on Coconut
VIII.	Replanting and Rejuvenation of Coconut Gardens
IX.	Coconut Palm Insurance Scheme
X.	Kera Suraksha Insurance Scheme
XI.	Technical Service, Project Management including Infrastructure and Administration

BUDGETARY SUPPORT

6.4. When asked by the Committee about the budgetary support for the CDB and its Schemes and Programmes including funds utilization during the last three financial years. The Department of Agriculture furnished the following details:

"During the last three years a total fund of Rs. 351.84 crore has been released by the Ministry to the CDB against which a total expenditure of Rs. 320.76 crore has been made.

(Rs. in crore)

Year	Budget Sanctioned (Revised Estimate)	Grants in Aid received from Ministry	Expenditure Incurred
2019-20	151.84	151.54	129.36
2020-21	102	95	91.94
2021-22	110	105.27	99.46
Total	363.84	351.81	320.76

6.5. The State/UT-wise details of funds release under various schemes of CDB during the last 8 years from 2014-15 to 2021-22 as finished by the DA&FW are furnished at **Annexure-VIII**.

ACHIEVEMENTS OF COCONUT DEVELOPMENT BOARD

6.6. The important activities and achievements of Coconut Development Board (CDB) during the period from 2004-05 to 2013-14 in terms of (i) area expansion, (ii) Development of Nurseries and quality plating material, (iii) Marketing facilities / linkages & (iv) Training manpower are as under :

The Coconut Development Board extended financial assistance under the scheme 'expansion of area under coconut' for about 32243 ha from the period 2004-05 to 2013-14, benefitting majorly the marginal and small farmers, against the target of covering 20533 ha. During the said period, assistance extended for production of about 132 lakh seedlings in government sector including Demonstration cum Seed Production Farms of the Board. Further, establishment of 49 seed gardens and 219 small coconut nurseries have also been covered.

From the year 2010-11, CDB focused the formation of clusters of coconut farmers and facilitating these clusters to formation of three tier Farmers' Collectives. The objective of this collective system is for collective purchase of inputs, undertaking plant protection measures, produce aggregation, marketing, planned harvesting, etc. by Coconut Producers' Societies (CPS) at bottom level; Primary processing, marketing, production of quality planting material, etc. by Coconut Producer Federations (CPF) at middle level; and Value addition, marketing, export, etc Coconut Producer Companies (CPC) at top level. The Board had facilitated formation of 4581 CPSs, 305 CPFs and 15 CPCs from 2010-11 to 2013-14.

The Board regularly participates/ organizes in various exhibitions & fairs at village level to international level for generic promotion of the coconut products, goodness of coconut and also undertakes various publicity activities for enhanced coconut trade. Farmers were collectivized at the grass root level to form farmer collectives to enable them to aggregate their produce and undertake group marketing thereby reducing marketing costs, increasing collective bargaining power and better returns.

6.7. Regarding steps being taken by the Coconut Development Board to promote Coconut in those States where it is not cultivated, the Department submitted as under :

"Coconut adopts for cultivation along the equator in the world. In India coconut is cultivated in a total area of 21.82 lakh ha in 19 States and 4 UTs of the country. In other States/ UTs, mainly in the northern and Himalayan region, coconut production is not commercially viable due to climatic requirements.

As a tropical crop, coconut grows well on regions with hot climate, temperature has an important role on the growth and productivity of the palm. The ideal mean temperature for growth and yield of coconut is $27^{\circ}\text{C} \pm 5^{\circ}\text{C}$. Normally an altitude of 600 m appears to be the limit for commercial coconut cultivation. However, coconut can be grown upto 1000 m above mean sea level according to the circumstances and other infrastructure. A well distributed rainfall of about 1300-2300 mm per year is ideal for coconut farming. Even in dry areas with an annual rainfall of 500 to 800 mm, it is possible to grow coconut near valleys or adjacent to water resources, where soil moisture is adequate. The optimum humidity is 80 – 85 per cent, monthly means of relative humidity should not fall below 60%. The palm requires about 2000 hours of sunshine in a year.

In the States where coconut cultivation is not feasible, activities are being taken to create awareness on consumption/ usage of coconut and coconut products (generic promotion) for food, nutrition, cosmetics and toiletry purposes and to establish/ increase the coconut trade linkages in these areas.

However, in view of the successful commercial cultivation of coconut based farming system in the Demonstration cum Seed Production Farms of the Board located at varied agro climatic regions, especially in Kondagaon (Chhattisgarh) and Madhepura (Bihar) where extreme temperatures are felt, it is proposed to extend the crop to newer areas where coconut is not commercially grown. Further, the researches by the State Agricultural Universities and ICAR Institutes also record prosperous cultivation of coconut away from the coastal regions. With the climate change, major irrigation/ reservoir projects and the adaptation of the plant to newer areas, the crop can be expanded to the interior parts of the country.

During 2022-23, proposal for implementation of the scheme 'Expansion of Area under Coconut' in parts of Madhya Pradesh, Rajasthan and Jharkhand is also

underway, coupled with suitable awareness programmes on coconut cultivation techniques."

COCONUT PRODUCTION AND PRODUCTIVITY

6.8. The details of Coconut Production and Productivity in the country since the launch of MIDH are as under :

Year	Area in ('000 Ha)	Production (in Million Nuts)	Productivity (Nuts/ha)
2014-15	1975.81	20439.61	10345
2015-16	2088.47	22167.45	10614
2016-17	2082.11	23904.10	11481
2017-18	2096.72	23798.23	11350
2018-19	2150.89	21288.24	9897
2019-20	2173.28	20308.70	9345
2020-21	2198.98	20736.12	9430
2021-22 (2nd Estimate)	2109.71	19247.22	9123

Source: Department of Agriculture & Farmers welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India

PERFORMANCE OF CDB UNDER MIDH

6.9. To a specific query of the Committee seeking performance of CDB under MIDH, the Department of Agriculture and Farmers Welfare furnished the following details :

"CDB programmes were subsumed under MIDH as a Sub-scheme and operational from 2014-15. The major achievements of CDB since launch and after subsuming under MIDH are tabulated below:

S. No.	Particulars	Achievement before subsuming (From 1981-82 to 2013-14)	Achievement after Subsuming (From 2014-15 to 2021-22)
1	Seedling production	198.76 lakh no.	145.63 lakh no.
2	Expansion of area under Coconut	1.52 lakh ha	0.33 lakh ha
3	Demonstration of scientific coconut cultivation practices in various coconut growing States	326314 ha	88411 ha
4	New Demonstration cum Seed Production Farms Established	8 no. (280 ha)	3 no. (82 ha)
5	Implementation of 'Replanting & Rejuvenation of coconut gardens' scheme	2.21 lakh ha (from 2009-10)	1.80 lakh ha
6	New coconut processing units assisted for manufacture of various value added coconut products	266 no. (from 2002-03)	271 no.
7	Registration cum Membership Certificates (RCMCs) issued to exporters	1208 no. (from 2009-10)	4061 no.
8	No. of persons trained under skill development training programme 'Plant protection and palm climbing using mechanical device'	27230 no. (from 2011-12)	37945 no.
9	Formation of 3-tier Farmers' Collectives in coconut sector, other than coir	From 2010-11	
10	Coconut Producer Societies (CPS)	4594 no.	5193 no.
	Coconut Producer Federations (CPF)	300 no.	447 no.
	Coconut Producer Companies (CPC)	13 no.	54 no.

11	Export earnings of coconut and coconut products (other than coir products)	Rs. 27.42 cr. during 2000-01	Rs. 1156.12 cr. during 2013-14
12	Area under coconut	10.83 lakh ha (1980-81)	21.41 lakh ha (2013-14)
13	Production of coconut	5492 million nuts (1980-81)	21665 million nuts (2013-14)
14	Productivity of coconut	5485 nuts/ ha (1980-81)	10122 nuts/ ha (2013-14)

6.10. Explaining the reasons for declining trend in the performance of Coconut Development Board after implementation of MIDH, the Committee were apprised as under :

"The reasons attributing the lower fund allocation is manpower constraint in Coconut Development Board which reduced the field level implementation of the schemes and resulted in lower intake of funds. Besides senior level key positions were also vacant since 2019-20 for taking timely policy decisions. From 2020, Covid-19 related restrictions reduced the pace of scheme implementation which also restricted speedy implementation of schemes. Supply chain breakage in coconut industry due to Covid-19 restrictions led to slow release of funds for the establishment of processing units under Technology Mission on Coconut Scheme.

The Covid-19 restriction also reduced the conduct of awareness programmes and publicity activities of the Board. Further from 2019-20, one of the flagship schemes of Coconut Development Board "Integrated Farming-Laying out of Demonstration Plots" was withdrawn from farmers' fields on account of MIDH guideline restricting its implementation in public sector gardens only.

6.11. On being asked to elaborate on the infrastructure in the country for trade in plantation crops including coconut and use of cold Storages and deep-freezers for storage of these items, the reply of the Department of Agriculture and Farmers Welfare is as given below :

"The Coconut Development Board under the Technology Mission on Coconut extends financial assistance for '*Establishment of coconut outlets/kiosks*' for value added coconut products by entrepreneurs and farmer collectives; and '*Establishment of procurement centres*' to farmers' collectives for aggregation and marketing of their produce.

Coconut being a produce which is not highly perishable, requirement of cold storages and deep-freezers is limited. However, the Board extends financial assistance for establishing infrastructure for deep-freezer facilities for value added coconut products like minimally processed tender coconut, frozen/ grated coconut, coconut neera, etc."

PERFORMANCE OF CDB IN THE IMPLEMENTATION OF INSURANCE SCHEMES

6.12. The Committee sought detailed information on insurance schemes available for Horticulture Crops both under MIDH and under any other Schemes / Programmes of DA&FW including rate of subscription for such Schemes by farmers and feedback on the success rate of such Schemes. In this regard, the reply of the Department of Agriculture and Farmers Welfare is as under:

"Coconut Development Board (CDB) is implementing two insurance schemes, viz Coconut Palm Insurance Scheme (CPIS) and Kera Suraksha Insurance Scheme. Details are furnished below.

a) Coconut Palm Insurance Scheme (CPIS):

Coconut Palm Insurance Scheme is a central sector scheme under National Crop Insurance Program implemented by Coconut Development Board in participation with State/UT Government and Agriculture Insurance Company of India in major coconut growing states. Main objective of the scheme is to insure coconut palms against natural and other perils with a view to compensate the farmer in case of loss of palms.

The insurance scheme is applicable to all healthy nut bearing palms of farmers having a minimum of 5 bearing palms in a contiguous area grown as mono or intercropped on bunds, farms and homestead irrespective of variety. Premium is shared between Coconut Development Board, State Governments and Farmers in the ratio 50:25:25.

b) Kera Suraksha Insurance Scheme:

This is the insurance scheme specifically designed for insuring coconut tree climbers by the Board, considering the fact that the profession is highly skilled and falls under high risk category. The scheme covers all those who are engaged in coconut tree harvesting / climbing as profession. At present, the scheme for Coconut Tree Climbers (CTC)/Neera Technicians/Coconut Harvesters is being implemented in association with the New India Assurance Company Ltd. The scheme is implemented in all coconut growing States. The sum assured under the policy is ₹5.00 lakhs against 24 hours' accident related risk including death. Annual premium under the policy is ₹375/-, out of which Board's share of premium is ₹281 and balance ₹94/- is the beneficiary's share.

CHAPTER-VII

IMPLEMENTATION OF MIDH INTERVENTIONS THROUGH DIFFERENT IMPLEMENTING AGENCIES

The MIDH envisages production and productivity improvement of horticulture crops including fruits and vegetables through various interventions. Activities such as production of planting material, vegetable seed production, coverage of area with improved cultivars, rejuvenation of senile orchards, protected cultivation, creation of water resources, adoption of Integrated Pest Management (IPM), Integrated Nutrient Management (INM), organic farming, including *insitu* generation of organic inputs are taken up for development of horticulture sector. Capacity buildings of farmers and technicians are also taken up for adopting improved technologies. Scheme also envisages creation of infrastructure for Post-Harvest Management (PHM) and marketing for better price realization of produce.

NATIONAL LEVEL AGENCIES IN THE IMPLEMENTATION OF MIDH

7.2. National Level Agencies are engaged by the Department of Agriculture and Farmers Welfare in the implementation of MIDH. The updated list of National Level Agencies (NLAs) is as under:-

S. No.	Name of the NLAs under MIDH
1	National Horticulture Board (NHB)
2	Coconut Development Board (CDB)
3	Small Farmer's Agri-Business Consortium (SFAC), New Delhi
4	Directorate of Cashew and Cocoa Development (DCCD), Kochi
5	Directorate of Arecanut and Spices Development (DASD), Calicut
6	National Committee on Plasticulture Applications in Agriculture & Horticulture (NCPAAH)
7	National Horticulture Research & Development Foundation (NHRDF)
8	Hindustan Insecticides Ltd. (HIL)
9	National Institute for Agricultural Extension Management (MANAGE)
10	Fresh & Healthy Enterprises Ltd. (FHEL)
11	Agricultural and Processed Food Products Export Development Authority (APEDA)
12	National Bee Board
13	National Seed Corporation
14	Spices Board
15	Directorate of Marketing & Inspection (DMI)
16	Ministry of Food Processing Industries (MFPI)
17	National Medicinal Plants Board (NMPB)
18	Central Institute of Horticulture (CIH), Nagaland
19	National Centre for Cold Chain Development (NCCD)
20	National Institute of Food Technology Entrepreneurship and Management (NIFTEM)
21	Indian Agricultural Statistics Research Institute
22	Mahalanobis National Crop Forecast Centre (MNCFC)
23	National Institute of Agricultural Marketing (NIAM)
24	Krishi Vikas Sahakari Samiti Ltd (KVSSL)
25	National Centre for Organic and Natural Farming (NCOF)
26	All ICAR Institutes

RESEARCH & DEVELOPMENT UNDER MIDH

7.3. The Committee sought details regarding R&D initiatives undertaken under MIDH in the areas of (i) Production of quality planting material, (ii) Pest Management (iii) Horticulture Mechanization, etc. In response, the Department of Agriculture and Farmers Welfare stated:

"Central Government Institutes under ICAR, CSIR, SAUs, National level Govt. agencies and other location specific Institutes will take up need based applied research & development works in the areas of

- (i) Seed & Planting material including import of planting material
- (ii) Technology standardization and
- (iii) Technology acquisition and
- (iv) imparting training and FLD, on project mode, with 100% assistance

Under MIDH guidelines, there is also a provision of assisting Rs. 100.00 lakh/Project for research work."

7.4. As regards Scope and procedure for R&D activities under MIDH, National Level Agencies (NLAs) engaged for the purpose and Year-wise financial and physical achievements made since the launch of MIDH, the Committee were furnished with a reply as under :

"Under MIDH scheme, Central Government Institutes under ICAR, CSIR, SAUs, National level Govt. agencies and others location specific Institutes takes up need based applied research & development works in the areas of

- (i) Seed & Planting material including import of planting material
- (ii) Technology standardization and
- (iii) Technology acquisition and
- (iv) Imparting training and FLD, on project mode, with 100% assistance.

Furthermore, under MIDH, R&D on horticulture crops is confined to NE & Himalayan states, R&D on Bamboo is on pan India basis. Research Institutes under Indian Council of Agricultural Research (ICAR), Council of Scientific & Industrial Research (CSIR), Indian Council of Forestry Research & Education (ICFRE) and its institutes, State Forest Research Institutes, State Agricultural Universities and other Research institutes/organizations in the Public sector are eligible for assistance in R&D.

PRODUCTION AND PRODUCTIVITY IMPROVEMENT

7.5. The Committee noted that as per the State-wise (2021-22) data regarding area, production and productivity (Production/Area) furnished by the DA&FW, the productivity in Rajasthan is 2.79 ('000'MT) and it is 18.44 ('000'MT) in Punjab as against the all India average of 12.09 ('000'MT). The Department of Agriculture and Farmers Welfare was asked to explain reasons for vast variations productivity and its impact on income for farmers. In this regard the written reply of the Department is reproduced below :-

"Out of the total area under horticulture crops in Rajasthan, 83.7% is under Aromatic & Medicinal plants and Spices whose productivity (production/ area) in general, is very low. However, crops like fruits and vegetables (whose productivity is in general high) accounted for 89.4% of area in Punjab and 65.4% area at all-India level. It may be noted that aromatic & medicinal plants and Spices are high value crops compared to vegetables and fruits and bring more income to the farmers. Productivity by taking all the horticulture crops together will not be a good measure to assess the income from horticulture production as it involves a large number of different crops with different productivity levels.

The productivity of fruits in Rajasthan is 13.32MT/hac. and vegetables is 10.25MT/hac. However, the productivity of medicine & aromatic plants is only 0.89MT/hac. and spices is 1.24MT/hac. This has impacted the overall productivity of horticulture in Rajasthan. The productivity of fruits & vegetables which is mainly grown by large number of farmers is within reasonable levels."

7.6. On being asked about the position of India among the world as per the productivity in horticulture, the Department of Agriculture and Farmers Welfare furnished reply stating that: - "Total area, production and productivity under broad categories of horticulture crops in the Country during 2020-21 and 2021-22 (as per 1st adv. Estimate) are given under :

Area, production and productivity under broad categories of horticulture crops

(Area in 000' Ha, Production in 000' MT, Productivity MT/Ha.)

Horticultural Crops	2020-21			2021-22(1 st Ad.Est.)		
	A	P	Productivity	A	P	Productivity
Fruits	6930	102481	14.8	6967	102924	14.8
Vegetables	10859	200445	18.5	11065	199882	18.1
Flowers	322	2980	9.3	267	2886	10.8
Aromatics & medicinal	653	825	1.3	650	767	1.2
Plantation	4255	16629	3.9	4271	15852	3.7
Spices	4457	11117	2.5	4344	10816	2.5
Honey		125			125	
Total	27476	334603	12.2	27564	333252	12.1

7.7. A comparative data on the productivity level of Horticulture Products (major category-wise like fruits, vegetables, spices, etc.) in India with that of top ranking producing / Exporting countries of the World as furnished by the Department of Agriculture and Farmers Welfare is as under :

"As per the data available on **FAOSTAT** website <https://www.fao.org/faostat/en/#data>, the area, production and productivity of fruits and vegetables by top producing countries for the year 2020 is given below ;

Country	Citrus Fruits (Total)		
	Area harvested (ha)	Production (MT)	Yield (MT/Ha)
China	2999099	44632406	14.88
Brazil	691149	19401609	28.07
India	1054000	13979000	13.26
Mexico	646207	8882725	13.75

USA	270180	7148807	26.46
Spain	297970	6696400	22.47
Egypt	184518	4452310	24.13
Türkiye	158084	4348742	27.51
Iran	136318	4005280	29.38
Nigeria	840750	3981704	4.74
	Fruits, Primary (total)		
Country	Area harvested (ha)	Production (MT)	Yield (MT/Ha)
China	14967952	245452797	16.40
India	7230630	105971127	14.66
Brazil	2082172	39758842	19.09
Türkiye	1348595	24153128	17.91
Mexico	1565910	23837562	15.22
USA	1059645	23747765	22.41
Indonesia	891530	22743965	25.51
Spain	1548120	19471070	12.58
Iran	1172823	18963596	16.17
Italy	1131370	17827510	15.76
	Vegetables (total)		
Country	Area harvested (ha)	Production (MT)	Yield (MT/Ha)
China	23336106	596166271	25.55
India	9138225	141195036	15.45
USA	848827	33124467	39.02
Türkiye	744527	25960714	34.87
Viet Nam	996741	17002195	17.06
Egypt	654345	16135024	24.66
Nigeria	4222093	15706483	3.72
Mexico	692770	15098212	21.79
Russian Federation	629459	13950679	22.16
Spain	325710	12668790	38.89592

Source: FAOSTAT

7.8. The Year-wise achievements made under this MIDH- Intervention of Production and Productivity Improvement as furnished by the DA&FW are as under:

"MIDH is being implemented in all States/UTs for holistic development of Horticulture Sector including improvement in Production and Productivity of Horticulture crops. Details of Production and Productivity of Fruits and Vegetables since the launch of MIDH is given below:

Production ('000 MT)					
Sl. No.	Years	Fruits		Vegetables	
		Production	Productivity	Production	Productivity
1	2014-15	86601.68	14.17	169478.23	17.76
2	2015-16	90183.04	14.31	169063.93	16.73
3	2016-17	92918.05	14.58	178172.40	17.40
4	2017-18	96447.00	14.81	184040.79	18.29
5	2018-19	97966.66	14.85	183169.61	18.18
6	2019-20	102079.85	15.07	188283.83	18.26
7	2020-21	102481.17	14.79	200445.23	18.46
8	2021-22 (3 rd adv.est)	107241.51	15.21	204835.12	18.05

PRODUCTION AND DISTRIBUTION OF PLANTING MATERIAL

7.9. According to Department of Agriculture and Farmers Welfare, there are sufficient provisions available under the Seeds Acts, 1966, the Seeds Rules, 1968 and the Seeds (Control) Order 1983 (as amended) to ensure availability of good quality seeds. The States Governments are empowered to take punitive action in case sale or distribution of sub-standard seeds.

7.10. As regards regulation of Plant-Nurseries and the quality of Planting material / Saplings of mother plants supplied by the nurseries in the country including the accreditation process, the Committee were informed that :

"Under NHB, accreditation / rating of horticulture nurseries is being done based on the application received from the nurserymen. Regarding the quality planting material/saplings of mother plants supplied by the nurseries, NHB is following the established procedure:

7.11. As regards new initiatives being undertaken under MIDH to ensure required quality standards of planting material supplied from a recognized nursery, the Committee were told that with a view to ensure availability of quality planting material, NHB has put in place a system of Recognition of Horticulture Nurseries to facilitate, promote and monitor production and trade of quality planting materials of horticulture crops. Under this voluntary system, nurseries are rated/graded for their production and propagation system with an aim to establish a network of quality nurseries across the country for the purpose of propagation, multiplication and distribution of quality planting material of horticulture crops in India."

7.12. Regarding progress made in the Mission Intervention of 'Production and Distribution of Planting Material' and Year-wise financial and physical achievements made, it was informed that under MIDH, assistance is provided, inter-alia, for the following:

i) Hi-tech nursery (4 ha)
ii) Small Nursery (1 ha)
iii) Upgrading nursery infrastructure to meet accreditation norms
iv) Strengthening of existing Tissue Culture (TC) units
v) Setting up of new TC Units.
vi) Seed production for vegetables and spices
a) Open pollinated crops
b) Hybrid seeds
vii) Import of planting material
viii) Seed infrastructure (for handling, processing, packing, storage etc. of seeds meant for use as seed material for cultivation of horticulture crops)

Year-wise and Component-wise physical achievements are as under:

Component	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22
1.Production of planting material								
Nursery & TC Units								
▶ Hi-tech Nursery (No.)	27	13	7	19	14	12	8	13
▶ Small Nursery (No.)	70	40	71	113	91	130	85	73
▶ Upgrading nursery infrastructure to meet accreditation norms (No.)	93	20	15	26	40	30	0	32
Strengthening of existing Tissue culture units (No.)	5	3	4	3	1	2	4	0
▶ Setting up New Tissue culture units (No.)	16	15	16	13	12	14	20	11
Seed production for vegetable and spices (Ha)								
▶ Hybrid seeds	178	3	0	1	50	109	254	81
▶ Open pollinated crops	1675	3317	2091	3022	3766	2432	902	737
Seed Infrastructure (No.)	12	10	8	10	14	5	7	5

Year-wise and Component-wise financial achievements are as under:

(Rs. in Lakhs)

Component	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22
1.Production of planting material								
Nursery & TC Units								
▶ Hi-tech Nursery (No.)	669.25	539.83	395.76	878.33	535.36	427.5	302.08	412.85
▶ Small Nursery (No.)	649.26	406.09	581.01	710.84	835.91	1194.85	731.68	583.64
▶ Upgrading nursery infrastructure to meet accreditation norms (No.)	475.23	166.16	252.49	172.5	191.66	204.56	19.61	141.34
Strengthening of existing Tissue culture units (No.)	60	8.5	74.43	33.45	50.77	14.53	70.48	34.86
▶ Setting up New Tissue culture units (No.)	447.39	508.85	855.75	881.71	1225.36	612.65	784.8	472.53
Seed production for vegetable and spices (Ha)								
▶ Hybrid seeds	32.18	4.5	0	0	28.48	70.93	295.26	22.21
▶ Open pollinated crops	465.89	605.79	374.72	459.97	630.13	344.05	332.99	134.2
Seed Infrastructure (No.)	1234.05	590.26	876.79	664.59	1329.51	373	433.91	149.47

Source: as reported by States on MIDH web portal

7.13. When asked about the year-wise targets and achievements made in production of quality planting material under the MIDH since the launch of MIDH, the following details were *inter-alia* furnished to the Committee :

"(i) Production of quality planting material

Year	Creation of Nurseries (in No.)					
	NHM		HMNEH		Total	
	Target	Achievement	Target	Achievement	Target	Achievement
2014-15	105	57	124	40	229	97
2015-16	62	36	51	17	113	53
2016-17	80	46	47	32	127	78
2017-18	106	63	77	69	183	132
2018-19	109	33	111	72	220	105
2019-20	114	65	122	77	236	142
2020-21	160	50	95	43	255	93

2021-22	145	37	96	6	241	43
2022-23	174	1	60	0	234	1
Total	1055	388	783	356	1838	744

Source: as reported by States on web portal

MUSHROOM PRODUCTION

7.14. Under the area expansion component of MIDH, assistance is provided for promotion of mushroom cultivation. Details including cost norms and pattern of assistance are given below:

Name of Component	Unit Cost	Pattern of Assistance
(a) Production unit	Rs. 20 lakh/unit	100% of the cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy.
(b) Spawn making unit	Rs. 15 lakh/unit	100% of the cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy.
(c) Compost making unit	Rs. 20 lakh/unit	100% of the cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy.

Schemes for mushroom growers in the country:

- Under MIDH two schemes are there in which mushroom growers are provided subsidy for setting up climate control unit of mushrooms:

7.15. The Committee sought details regarding National Level Agencies (NLAs) engaged for 'Mushroom Production' and overall Year-wise financial and physical achievements made under this MIDH-Major Intervention since the launch of MIDH. In response, the Department of Agriculture and Farmers Welfare intimated that "ICAR-Directorate of Mushroom Research (DMR), Solan has been declared as NLA under MIDH in the year 2022. No project proposal has been received from ICAR-DMR."

PROGRESS IN ESTABLISHMENT OF CENTRE OF EXCELLENCE (COE)

7.16. The Centre of Excellence (CoE) can be established only by State Horticulture Mission (SHM)/ Public sector for which financial assistance of Rs. 10.00 Crore maximum is available under MIDH. The CoE can be established either with technology support from Indian R&D system or through bilateral cooperation. At present, 44 crop specific CoEs are being established in cooperation with Israel and Netherlands under MIDH scheme.

7.17. On being asked about the number of completed projects of 'Centers of Excellence' and the number of projects that are being set up or proposed to be created in the country, the reply to the Committee in this regard is reproduced below :

"At present 44 CoEs are being established in cooperation with Israel and Netherland. Under Indo-Israel Action Plan, so far 37 CoEs have been approved with the technical assistance of MASHAV, Israel of which 29 Centre of Excellence have been completed and are working. Similarly, under Indo-Dutch Cooperation, 7 CoEs have been approved out of which 2 CoEs have been completed and are working. Remaining 13 CoEs, out of 44 are being set up.

Further, creation of CoEs are demand driven. States propose CoEs as per their requirement and availability of resources."

7.18. When asked reasons for not setting up Centres of Excellence in some of the States/UTs, the Committee were intimated that - *'the component of CoE under MIDH is demand/entrepreneur driven and could be established as per availability of resources and requirement of States/UTs. States who desire to set up CoE as per their requirements, send proposal to Gol.'*

HUMAN RESOURCE DEVELOPMENT (HRD) IN HORTICULTURE

7.19. The Committee sought to know about the action plan of the Government to tackle the challenge of Lack of skilled human resources in horticulture sector especially at grass-roots level in a fixed time frame. In this regard the Committee were informed inter-alia as under :

"Under the Human Resource Development (HRD) component of MIDH Guidelines, assistance is provided for awareness programmes, farmers training, exposure visit, etc. Training is provided on latest technologies on production and post-harvest management to women and youth. Details of the components with cost norms and pattern of assistance are as under:

S. No.	Name of the component	Cost Norms	Pattern of assistance
i)	HRD for Supervisors & Entrepreneurs	Rs. 20.00 lakh / unit	100% of the cost in first year. In subsequent years, cost of infrastructure not to be claimed.
ii)	HRD for Gardeners	Rs. 15.00 lakh / unit	100% of the cost.
iii)	Training of farmers		
a)	Within the State	Rs. 1000/day per farmer including transport	100% of the cost.
b)	Outside the state	Project based as per actual.	100% of the cost.
iv)	Exposure visit of farmers		
a)	Outside the state	Project based as per actual.	100% of the cost.
b)	Outside India	Rs. 4.00 lakh / participant	Project Based. 100% of air/rail travel. Course fee cost to be funded under Mission Management.
v)	Training / study tour of technical staff/ field functionaries		
a)	Within the State	Rs.300/day per participant plus TA/DA, asadmissible	100% of the cost.

b)	Study tour to progressive States/units (group of minimum 5 participants)	Rs.800/day per participant plus TA/DA, as admissible	100% of the cost.
c)	Outside India	Rs. 6.00 lakh per participant	100% of air/rail travel and course fee cost to be funded under Mission Management.

All ICAR Research Stations, Directorate and State Horticulture Directorates are imparting training to educated youth for creation of skilled manpower."

7.20. The Committee sought achievements in the Mission Intervention of 'Human Resource Development (HRD) in Horticulture' including National Level Agencies (NLAs) engaged for the purpose and Year-wise financial and physical achievements made since the launch of MIDH. In response, the Department of Agriculture and Farmers Welfare furnished reply as given below :

"Under the Human Resource Development (HRD) component of MIDH, assistance is provided for awareness programmes, farmers training, exposure visit, etc. Training is provided on latest technologies on production and post-harvest management to women and youth. Efforts are being made for converting HRD interventions to Skill Development in Horticulture as per ASCI curriculum. Since inception of MIDH i.e. from 2014-15 onwards, a total of 8.03 Lakhs farmers have been trained.

Year wise Physical & Financial Achievements of Human Resource Development under MIDH are as follows:

Sr. No.	Year	No. of farmers trained	Funds utilised on farmers training
1	2014-15	90531	1585.46
2	2015-16	128019	2522.30
3	2016-17	98294	1587.05
4	2017-18	74434	1266.95
5	2018-19	209337	3199.04
6	2019-20	105421	2113.88
7	2020-21	47183	568.81
8	2021-22	50578	650.84
	Total	803797	14293.40

7.21. On being asked about the institutional mechanism for capacity building of trained manpower in technology improvement in horticulture, the Committee were informed that - *"Training institutes have been identified through subordinate offices and autonomous bodies under the Ministry of Agriculture and Farmers Welfare to impart skill based training to rural youth for technology improvement in Horticulture."*

7.22. The Committee sought to know as to what extent the Agricultural Extension Services of DA&FW and the training facilities of the Ministry of Skill Development and Entrepreneurship are utilized for the implementation of the Mission Component. In this regard, the Department of Agriculture and Farmers Welfare submitted :

"Under MIDH, assistance is provided for training and extension activities to improve the Skills of Farmers and Officers of the Department to convert the Conventional practices into adoption of latest Technologies with an objective to improve the Quality, Productivity, Post-Harvest Handling and Marketing of the Horticulture Produce.

While implementation of the programme the Department identifies the farmers in convergence with ATMA, Department of Agriculture, Department of Rural Development and Skill Development Corporation. The Department is also conducting the training programmes involving Resource persons from Agriculture/Horticulture University and Publicity material like Crop-specific Hand Books are made available to the farmers through Institutes like Agriculture/Horticulture Universities, Extension Departments like ATMA and other Government Organisations."

NATIONAL BEE-KEEPING AND HONEY MISSION

7.23. National Bee Board (NBB), a registered society under Societies Registration Act XXI of 1860 (19th July, 2000), was reconstituted under the Chairmanship of Secretary (A&C) in June, 2006. NBB has been designated as Nodal Agency for overall development/promotion of scientific beekeeping in the country. The scheme NBHM is being implemented by NBB.

7.24. The Scheme (NBHM) has three Mini Missions (MM-I, II & III) under which main thrust will be given for setting up of infrastructural facilities, etc. for overall promotion and development of scientific beekeeping in the country, viz.; Integrated Beekeeping Development Centres (IBDCs), Honeybees Disease Diagnostic Labs, Setting up of/ upgradation of Honey Testing labs, Beekeeping Equipment Manufacturing Units, Custom Hiring Centres, Api therapy Centres, Development of Quality Nucleus Stock Centres & Bee Breeders, etc., digitization/ online registration, strengthening and promoting institutional framework for beekeeping, including State Bee Boards, State Bee Missions, National & State Level Beekeepers Cooperatives/ Federations/ Farmers Producers Organisations (FPOs), etc. NBHM is implemented in all the States/ UTs. However, NBHM is project based scheme, no State-wise targets have been fixed under NBHM. The activities are sanctioned under NBHM on the basis of projects received under NBHM from implementing agencies viz., State Govts., ICAR, Central/ State Agriculture Universities, concern Ministries/ Departments, Members of NBB, etc.

7.25. On being asked about overall Year-wise Financial and Physical achievements made under this Major Intervention since the launch of MIDH, the Department of Agriculture and farmers Welfare furnished reply stating *inter-alia* as under:

"Since the inception of National Beekeeping and Honey Mission (NBHM) in 2020-21, National Bee Board (NBB) is the National Level Agency (NLA) for NBHM. The Physical and Financial Progress made under National Beekeeping and Honey Mission (NBHM) during last two years is as under:

(Phy. in nos. and Fin. in lakhs)

S.N.	Components	2020-21		2021-22		Total	
		Phy	Fin	Phy	Fin	Phy	Fin
A	Mini-Mission I		4794.45		2565.28		7359.73
B	Mini-Mission II		3094.92		1503.44		4598.36
C	Mini-Mission III						
	R&D relating to beekeeping	14	524.15	7	425.60	21	949.75
	MS		214.43		98.245		312.67
	Sub Total (Mini Mission (I, II & III))		8627.95		4592.63		13220.58
	NAFED MS Left of Previous Project				120.31		120.31
	Grand Total		8627.95		4712.94		13340.89

PROGRESS IN CREATION OF MARKET INFRASTRUCTURE

7.26. Assistance for setting up markets will only be given to those States/UTs which have amended their State Agricultural Produce Marketing Committee (APMC) Act and have also notified the amended rules there under to implement the provisions for :

- a) Setting up of new markets in private and cooperative sector;
- b) Direct marketing (sourcing of horticulture produce directly from growers by wholesalers/ bulk retailers/ processors/ exporters/ end users). (If trade transaction of horticulture perishables takes place outside the market-yard, no market fee should be levied)
- c) Doing away with requirement of having a premises within the market yard for grant of license.
- d) Contract farming and.
- e) Waiver of market fee on perishable horticulture produce.

7.27. The Committee sought clarification whether the MIDH Intervention(s) for Marketing Infrastructure is/are separate components or they are part of the larger umbrella Scheme(s) implemented by the Agricultural Marketing Division of the DA&FW. In this regard, the Committee were furnished with a clarification stating - "*Under the DA&FW, Marketing division is a separate division for development of marketing facilities in the country. However, under MIDH, assistance is also provided for promotion of marketing infrastructure facilities which includes Static/mobile vending cart/platform, retail outlets, Rural and primary markets/ Apni Mandi/Direct markets, wholesale and terminal markets etc. which is separately implemented under the scheme.*"

7.28. The Department of Agriculture and Farmers Welfare, when asked to elaborate on the infrastructure in the country for trade in vegetables and fruits and use of cold Storages and deep-freezers for storage of these items, furnished reply as given below:

"The trade of fruits and vegetables can be divided into two parts –

- Domestic trade
- Exports

The domestic trade is mainly channelled through Mandis. These Mandis house traders who deal in all kind of fruits and vegetables and have large capacity developed in terms of Cold storages and Freezers with multiple temperature and humidity controlled chambers which are used all during the year to store various kinds of horticulture produce which arrive in the Mandis from all over country and from respective local farms. These Mandis act as Hub and distribute these vegetables and fruits in the local market and to other bigger markets which are linked to these markets by method of Refer vehicles or through general transport as the demand or requirement may be.

The modern cold storages and deep freezers have allowed the producers to market their surplus produce during off-season at different places and thus allowed them to reap good benefits out of their Horticulture produce. This has enabled the growers to shift more and more towards horticulture crops since modern facilities including logistic cold chain hubs ensure that surplus produce is stored well to be delivered during high demand in off season period. Markets have very well evolved by these facilities and more growth is anticipated in these segments along with the growth in both postharvest processing and post-harvest storage and transit. Currently India has 8354 cold storage facilities with an installed capacity of 38.08 million MT.

7.29. On being asked as to whether there is lack of supply chain infrastructure at the District and Taluk level in the Country and to furnish details regarding of the steps taken by the Department to find solution to this Major Issue. The reply of the Department of Agriculture and Farmers Welfare is as under :

"In order to reduce the number of intermediaries in supply chain of fruits and vegetables from farmers to consumption centres as also to maintain the supply chain and support farmers in selling their perishable produce, DA&FW has rolled out the Scheme for "Creation of Integrated Supply Chain for Fruits and Vegetables in Major Cities in the Country" during April, 2020. For the scheme, several projects were received from various States. Proposals were examined and those which are complete in all respect and fulfilled the criteria to support the farmers to maintain the supply chain, have been approved. "

7.30. To a specific query of the Committee seeking details regarding progress achieved in the Scheme for Creation of Integrated Supply Chain for Fruits and Vegetables in Major Cities in the Country, the Committee were informed as follows :

"For creation of Integrated Supply Chain for Fruits & Vegetables, a total of 22 project proposals were received from 13 States. These proposals were examined and found that many information/documents/clarifications required for further process of the case. For this, several letters/reminders were issued and meetings were held with the States. However, only State Horticulture Mission, Government of Kerala and Odisha have submitted the complete project proposals with all requisite documents for the districts of Trissur & Ernakulam (Kerala) and Bhubaneswar & Sambalpur (Odisha) respectively.

DA&FW has sanctioned 04 Supply Chain Projects received from the States of Kerala and Odisha under MIDH scheme."

CHAPTER-VIII

PERFORMANCE EVALUATION OF IMPLEMENTATION OF MIDH

The Mission for Integrated Development of Horticulture (MIDH) was launched during 2014-15 for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa Bamboo. etc. At present many Mission interventions and scheme components are implemented through five Sub-schemes of MIDH.

SCHEME-WISE SANCTIONED PROJECTS UNDER MIDH

8.2. The details of Year-wise projects sanctioned under MIDH scheme during 2014-15 to 2021-22 along with cost value as furnished by the Department of Agriculture and Farmers Welfare is at **Annexure-IX**. The list of Component-wise and Year-wise projects sanctioned under different MIDH Schemes during 2014-15 to 2021-22 is at **Annexure-X**.

8.3. The Department of Agriculture and Farmers Welfare was asked whether the potential of horticulture sector of each State/UT was assessed for holistic development and the funds allocated were sufficient for States /UTs to prepare suitable Annual Action Plans so as to enable them to ensure optimal utilization of available resources. The Department was also asked about the steps that are being contemplated to ensure that sufficient number of proposals are submitted by each State / UT through their AAPs. In this regard, the reply furnished to the Committee is reproduced below :

"To review the impact and to assess the potential of horticulture sector for holistic development, the evaluation of MIDH was done by Development Monitoring and Evaluation Office (DMEO), NITI Aayog and M/s Global Agri Systems PVT. Ltd.

Funds are allocated to the different schemes of DA&FW as per the available resources (BE/RE) during the Financial Years. On the basis of funds allocated to MIDH scheme, the said fund is distributed to all the States/UTs on the basis of their requirement for horticulture sector, past performance and their capacity for utilization of funds during the previous years.

The flow of funds and the utilization by the State Horticulture Missions from Government of India and utilization of funds is being governed by extant financial norms. Funds are released to the State Governments. State Governments in turn release funds to the State Horticulture Missions. Annual Action Plans (AAPs) including project proposals are being submitted by State Horticulture Missions to this Department as per their requirement and potential with the approval of SLEC of the State. As per the power of Delegations of MIDH Operational Guidelines, project proposals up to the cost of Rs. 5.00 crore are approved by SLEC of the State and projects having the cost of Rs. more than 5.00 crore are received at the Ministry for consideration.

Various meetings are organized from time to time with the States to sensitize them regarding various programme/schemes of the Ministry to get sufficient number of proposals through AAPs."

8.4. The Committee desired to know as to whether the budgetary outlays provided to States/UTs were sufficient for them to ensure optimal utilization of available resources / promote growth potential in the Horticulture Sector. The Department replied:

"States prepare their Annual Action Plan (AAP) on the basis of availability of resources and requirements of States. Funds under the scheme are allocated and released to States on the basis of Annual Action Plan (AAP) received from States. Hence, States get sufficient funds to run the scheme for promotion of horticulture sector."

8.5. When asked whether any Physical and Financial Targets were set for Horticulture sector in terms of production, export, import substitution, the DA&FW furnished reply as under :

"MIDH scheme is being implemented through State Horticulture Missions (SHM) in accordance to the Annual Action Plan (AAP) submitted by the States. AAPs are prepared by States as per their demand, requirement and necessity of various horticulture activities. It is a demand/entrepreneur driven scheme. Therefore, targets for the production/import/export of fruits and vegetables are not assigned to the States."

BUDGETARY SUPPORT AND FINANCIAL ACHIEVEMENTS UNDER MIDH

8.6. According to the Department of Agriculture and Farmers Welfare, details of Revised Estimates and actual release of funds for MIDH since 2014-15, are as under :

Year	Revised Estimates (Rs. in Crores)	Fund Release (Rs. in Crores)
2014-15	1990.07	1958.73
2015-16	1769.59	1699.17
2016-17	1660	1495.37
2017-18	2198.63	2034.06
2018-19	2108.13	2004.35
2019-20	1551.55	1314.91
2020-21	1511.92	1372.43
2021-22	1509.76	954.38

FINANCIAL ACHIEVEMENTS IN SUB-SCHEMES OF MIDH DURING 2019-20 TO 2021-22

8.7. The details regarding break-up of the budgetary support provided to different Sub-Schemes of MIDH during last 3 years i.e. from 2019-20 to 2021-22 are as under:

Name of the Scheme	2019-20			2020-21			2021-22		
	BE	RE	Release	BE	RE	Release	BE	RE	Release
Centrally Sponsored Scheme (CSS)									
NHM	1217.00	1065.00	910.56	1363.62	891.04	831.82	1335.50	830.23	516.19
HMNEH	415.00	294.50	216.28	470.00	400.00	333.58	600.00	447	215.90
NABM	0.00	0.00	0.00	0.00	0.00	0.00	65.00	0.00	0.00
Total (CSS)	1632.00	1359.50	1126.84	1833.62	1291.04	1165.40	2000.00	1277.23	732.09
Central Sector (CS)									
NHB	352.00	27.50	27.50	170.00	105.00	101.75	190.00	113.00	106.82
CDB	212.00	151.50	151.54	141.67	102.00	95.00	110.00	105.27	105.27
CIH	8.77	8.25	4.26	9.00	9.00	5.64	9.00	7.95	5.14
DASD – Non Plan	3.24	3.24	3.24	3.90	3.22	3.13	3.16	4.28	3.30
DCCD– Non Plan	1.50	1.50	1.50	2.00	1.60	1.49	2.00	1.96	1.75
Swachhata Action Plan	0.06	0.06	0.00	0.06	0.06	0.02	0.06	0.07	0.01
Total (CS)	577.57	192.05	188.04	326.63	220.88	207.03	314.22	232.53	222.29
Grand Total (CS+CSS)	2209.57	1551.55	1314.88	2160.25	1511.92	1372.43	2314.22	1509.76	954.38
NHM - National Horticulture Mission HMNEH - Horticulture Mission for North East & Himalayan States including PMDP NABM - National Agro-forestry & Bamboo Mission NHB - National Horticulture Board CDB - Coconut Development Board CIH - Central Institute of Horticulture DASD – Directorate of Arecanut & Spices Development DCCD– Directorate of Cashewnut & Cocoa Development									

8.8. Taking note that the Revised Estimates were showing declining trend and funds utilization was low during the last three financial years, the committee sought to know the reasons for the same. In this regard, the Department of Agriculture and Farmers Welfare furnished written reply as under :

"The issues in implementation of MIDH scheme are as under: -

(i) Delay in release of funds from State Finance Departments: - There is a huge time lag between the release of funds (Gol share and State share) from State Finance Departments to State Horticulture Missions. In some of the States, matching state shares are not being released in time.

(ii) Utilization of SCSP funds: - Some of the States like Uttar Pradesh, Maharashtra, Punjab, Haryana expressed their difficulty in utilizing SCSP funds under the scheme as Gol is releasing SCSP funds to States as per the population ratio of the respective states, however, land holdings of Scheduled Caste population are less in these states.

(iii) Credit facilities from the Bank: - In some of the States, especially in North East and Himalayan States banks are not giving credit facilities for the Post Harvest Management projects under MIDH.

(iv) During 2020-21, the pace of release/utilization of funds was slow due to less demand from the State Governments owing to adverse impact of COVID-19 pandemic and imposition of lockdown in the States. State Finance Departments were in a financial crisis and tremendous pressure to release Central Share and corresponding State Share to the Implementing Agencies in time as FY 2020-21 was a challenging year in the revenue point of view.

(v) During 2021-22, the pace of release/utilization of funds, under the Centrally Sponsored Component being implemented through States/UTs, was very slow owing to sluggish implementation of Guidelines of new procedure for release of funds adopted as per the directions of Ministry of Finance. The States are taking considerable time in fulfilling the stipulations/requirements laid down under the new procedure which has interrupted the utilization of funds during 2021-22."

8.9. On being asked about the new initiatives/steps that have been taken or proposed to be taken to improve funds utilization under MIDH, the Department of Agriculture and Farmers Welfare replied:

"New release procedure has been introduced for Centrally Sponsored Schemes from July 2021 by Ministry of Finance. The procedure has been implemented in the MIDH during 2021-22. All the States have opened Single Nodal Accounts/Child Accounts etc and following all the instructions vide DoE OM dated 23.3.2021 and subsequent OMs issued from time to time. After the implementation of this new release procedure, the status of release of Central Share, corresponding State Share by State Treasury, its utilization, position of unspent balance available in SNA etc. may be seen. It is promoting the effective utilization of funds by the States.

In addition to above, States/Implementing agencies are being asked to furnish Utilization Certificate along with physical progress report before release of any installment of funds. States/IAs have also been directed to update the physical progress in MIS portal of MIDH website on monthly basis."

8.10. As regards steps that have been taken to address the issues arising out of new Funds release procedure issued vide OM dated 23.03.2021 and non-furnishing of Utilization Certificates that hamper release of funds for MIDH and implementation of MIDH Schemes, the Department of Agriculture and Farmers Welfare intimated that *"State Governments were sensitized from time to time, through review meetings and letters, to adopt the new fund release procedure like deposition of accrued bank interest, release of funds from treasury to SNA accounts, etc."*

8.11. When asked about the details of other Central Government Schemes, whose funds are used for five MIDH Scheme Components, the Department replied that the funds of Ratriya Krishi Vikas Yojna (RKVY), Paramparagat Krishi Vikas Yojna (PKVY), Sub-Mission on Agricultural Mechanization (SMAM), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) and National Beekeeping and Honey Mission (NBHM) were used for MIDH scheme components.

FUNDS RELEASED TO STATES /UTS UNDER MIDH

8.12. The Department of Agriculture and Farmers Welfare furnished the following details on being asked about the year-wise details of budgetary outlays provided to States/UTs as per their AAPs for the implementation of MIDH since the launch of the Scheme :

"The state-wise **GOI allocation** of funds under NHM & HMNEH for the F.Y. 2014-15 to 2022-23 is as under:

Sl. No	State	2014-15 (GOI share)	2015-16 (GOI Share)	2016-17 (GOI share)	2017-18 (GOI share)	2018-19 (GOI share)	2019-20 (GOI share)	2020-21 (GOI share)	2021-22 (GOI share)	2022-23 (GOI share)
NHM States										
1	Andhra Pradesh	74.59	71.50	64.03	84.03	114.00	114.00	120.00	108.00	100.00
2	Bihar	42.50	28.50	26.31	26.31	22.50	22.50	25.00	20.00	20.00
3	Chhattisgarh	120.70	80.00	69.23	89.23	123.00	123.00	110.00	88.00	80.00
4	Goa	4.68	3.00	2.52	2.52	4.50	3.00	3.00	2.40	2.40
5	Gujarat	130.90	78.71	71.39	91.39	127.00	127.00	110.00	88.00	82.00
6	Haryana	112.20	71.50	61.84	79.84	110.00	110.00	120.00	96.00	80.00
7	Jharkhand	68.00	45.00	40.18	40.18	34.00	34.00	30.00	21.00	21.00
8	Karnataka	124.95	81.50	72.97	72.97	130.00	130.00	130.00	117.00	108.00
9	Kerala	85.00	40.50	46.42	46.42	95.53	39.50	40.00	28.00	28.00
10	Madhya Pradesh	93.50	51.00	45.35	45.35	38.50	38.50	65.00	52.00	45.00
11	Maharashtra	158.95	102.50	88.97	108.97	158.00	158.00	130.00	91.00	84.00
12	Orissa	93.50	57.50	49.91	49.91	89.00	89.00	67.00	46.90	41.00
13	Punjab	70.13	46.00	39.86	39.86	71.00	71.00	47.00	32.90	31.10
14	Rajasthan	89.25	55.00	50.89	70.89	90.50	90.50	60.00	42.00	39.00
15	Tamil Nadu	107.95	61.50	55.03	75.03	139.00	139.00	115.00	103.50	102.50
16	Telangana	59.71	40.50	32.90	32.90	28.00	28.00	28.00	19.60	19.00
17	Uttar Pradesh	68.00	40.00	37.27	37.27	67.00	76.20	80.00	64.00	60.00
18	West Bengal	42.50	28.50	24.91	24.91	44.00	44.00	34.00	23.80	23.00
19	A & N Islands	5.00	5.00	2.00	2.00	2.00	2.00	3.00	2.10	2.10
20	Puducherry	1.70	1.00	1.00	1.00	3.00	3.00	3.00	2.10	1.50
21	Dadra & Nagar Haveli	1.11	1.00	0.50	0.50	0.50	0.50	0.50	0.35	1.00
22	Daman & Diu	0.00	0.00	0.00	1.50	1.50	1.50	1.00	0.80	
23	Delhi	2.55	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.50
24	Lakshadweep	1.00	1.00	0.80	0.80	0.80	0.50	0.50	0.40	0.40
HMNEH States										
1	Arunachal Pradesh	50.00	35.50	32.30	32.30	26.00	26.00	22.00	17.60	18.24
2	Assam	48.00	30.50	28.00	28.00	84.00	84.00	60.00	54.00	54.00
3	Sikkim	49.00	34.50	30.50	30.50	25.00	25.00	25.00	22.50	22.50
4	Manipur	50.00	37.50	32.00	32.00	37.00	37.00	26.00	25.60	26.00
5	Meghalaya	40.00	28.00	25.50	25.50	42.00	42.00	25.00	18.70	20.00
6	Mizoram	52.00	34.50	31.50	41.50	30.00	30.00	30.00	32.00	32.00

7	Nagaland	52.00	34.50	31.50	41.50	32.00	32.00	26.00	29.40	30.00
8	Tripura	54.00	37.50	33.00	33.00	44.00	44.00	26.00	20.20	21.00
9	J & K	60.00	61.78	46.00	46.00	47.50	135.30	100.00	35.00	25.00
	PMDP for J & K	0.00	0.00	111.89	171.66	166.48			150.00	22.00
10	Himachal Pradesh	48.00	31.50	32.00	32.00	27.50	55.00	55.00	44.00	35.00
11	Uttarakhand	46.00	22.50	31.00	31.00	55.00	55.00	55.00	44.00	35.00
12	Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	20.00	16.00	19.00
	PMDP for Ladakh	0.00	0.00	0.00	0.00	0.00	0.00		39.67	16.00

8.13. The State / UT-wise and year-wise details of total funds released to each State / UT under all the Schemes of MIDH since the launch of the Scheme, as furnished by the Department of Agriculture and Farmers Welfare is as under :

The state-wise **GOI release** of funds under NHM & HMNEH for the F.Y. 2014-15 to 2022-23 is as under:

Sl. No	State	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
		(GOI share)	(GOI Share)	(GOI share)	(GOI share)	(GOI share)	(GOI share)	(GOI share)	(GOI share)	(GOI share)
NHM States										
1	Andhra Pradesh	64.68	55.75	64.02	76.70	102.93	79.38	95.00	50.00	0.00
2	Bihar	17.00	4.00	17.96	18.00	19.00	15.15	15.86	9.60	5.00
3	Chhattisgarh	111.88	77.55	61.47	89.23	102.25	68.45	85.00	63.00	20.00
4	Goa	0.00	2.30	1.65	2.51	2.87	1.50	0.00	0.60	0.60
5	Gujarat	109.47	47.82	65.45	88.74	95.25	63.50	30.00	87.18	20.50
6	Haryana	65.45	50.75	59.55	73.50	71.60	64.91	89.32	46.00	16.20
7	Jharkhand	49.69	25.79	30.14	25.00	9.50	10.00	10.00	0.00	0.00
8	Karnataka	96.08	67.69	69.50	68.50	115.58	107.40	113.66	54.00	25.91
9	Kerala	40.00	25.00	15.00	29.00	68.53	10.00	10.00	28.00	7.00
10	Madhya Pradesh	42.23	40.50	35.62	30.00	31.76	25.99	27.00	0.00	11.00
11	Maharashtra	140.00	96.25	50.44	86.73	107.00	82.35	63.50	18.63	21.00
12	Orissa	71.75	54.45	43.68	46.87	21.00	49.00	11.00	11.00	10.25
13	Punjab	58.50	30.35	30.00	15.00	35.50	10.00	22.50	8.22	0.00
14	Rajasthan	42.67	45.00	43.13	58.00	52.00	25.00	30.00	10.00	9.75
15	Tamil Nadu	55.36	58.73	47.14	61.27	129.00	93.02	114.73	75.00	25.60
16	Telangana	45.00	35.25	20.96	32.19	5.00	0.00	16.15	0.00	0.00
17	Uttar Pradesh	37.32	22.00	31.96	35.87	62.57	62.35	64.16	32.00	14.90
18	West Bengal	18.74	28.00	8.00	10.00	15.00	8.06	10.00	0.00	5.75
19	A & N Islands	1.42	2.50	0.00	0.00	0.00	1.00	0.30	0.53	0.53
20	Puducherry	0.86	0.50	1.00	0.99	1.50	1.50	1.40	0.00	0.32
21	Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00
22	Daman & Diu	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	
23	Delhi	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00
24	Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HMNEH States										
1	Arunachal Pradesh	23.77	35.50	0.00	0.00	20.00	12.50	8.00	4.40	4.50
2	Assam	29.09	20.00	22.00	22.90	56.00	79.16	45.00	27.00	13.50
3	Sikkim	44.50	33.25	25.25	30.50	22.00	22.84	19.85	10.94	5.63
4	Manipur	44.17	35.75	10.00	24.00	25.50	26.50	25.30	10.94	6.50
5	Meghalaya	27.60	18.00	18.75	15.36	21.00	9.10	7.25	8.60	2.84
6	Mizoram	41.00	34.50	31.50	41.50	25.00	22.58	40.00	6.75	7.80

7	Nagaland	34.76	17.25	15.00	36.34	27.00	23.60	26.00	11.70	7.50
8	Tripura	37.00	32.75	23.50	10.00	12.00	20.00	10.00	9.00	4.27
9	J & K	45.00	52.00	48.20	41.50	35.00	64.99	15.00	9.75	0.00
	PMDP for J&K	0.00	0.00	47.89	75.00	75.00	0.00	57.18	58.00	28.00
10	Himachal Pradesh	42.42	24.49	24.25	38.14	23.75	23.15	20.00	11.00	8.75
11	Uttarakhand	32.73	22.50	47.50	30.37	40.00	22.32	45.00	22.00	16.75
12	Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	15.00	9.01	4.75
	PMDP for Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.82	4.00

8.14. On being asked about the reasons for low funds release to Union Territories under MIDH, the Committee were replied as under :

"The schemes of MIDH are area/project based and are targeted to benefit farmers especially small and marginal farmers. Low fund release to UTs under MIDH is due to receipt of less proposal and availability of unspent balance of previous years."

CUMULATIVE PHYSICAL ACHIEVEMENTS UNDER MIDH FROM 2014-15 TO 2021-22

8.15. The Cumulative Physical Achievement under Mission for Integrated Development of Horticulture (MIDH) up to 2021-22 as intimated by the Department of Agriculture and Farmers Welfare, are as under :

- An additional area of 41.64 lakh Ha has been increased under MIDH.
- So far 4655 nurseries have been established for production of quality planting material.
- Over 6.69 lakh of old and senile orchards have been rejuvenated.
- An area of 20.19 lakh has been covered under Integrated Pest/Nutrient Management.
- About 4.35 lakh have been covered under protected cultivation activities.
- About 119032 water harvesting structures have been created for life saving irrigation to horticulture crops.
- About 20.42 lakh bee colonies with hives have been distributed for maximizing agriculture productivity.
- About 4.18 lakh horticultural machinery and equipments have been assisted.
- In all, 44 Centres of Excellence have been established through Indo – Israel and Indo-Dutch collaboration.
- Over 23.98 lakh farmers have been trained so far on improved horticultural practices.
- About 1.41lakh Post Harvest Management infrastructures including cold chain infrastructures have been set up to complement the production and productivity improvement programme.
- About 22.18 Million Tonne Cold storage capacity have been established under MIDH (including NHB) taking total capacity in the country to about 38.08 Million Tonne.

CROP SPECIFIC ACHIEVEMENTS

8.16. The Committee sought to know about the specific achievements made under MIDH vis-a vis Fruits, Vegetables, Spices & Flowers in terms of (i) Production and Productivity (ii) Price reduction (iii) Infrastructure / Market Development and (iv) International trade etc. the Department replied;

"MIDH is focusing primarily on increasing both production and productivity through adoption of improved and appropriate technologies for ensuring quality, including genetic upgradation of all horticultural crops and addressing challenges of climate change. Special emphasis is also given for adoption of area based cluster approach towards developing regionally differentiated crops, which are agro-climatically most suitable for the State/region.

Further, under MIDH, financial assistance is available as credit linked back ended subsidy, inter-alia, for development of Post-Harvest Management (PHM) infrastructure for perishable horticulture crops which includes establishment of pack house, Integrated pack house, pre-cooling, staging cold room, cold storages, Controlled Atmosphere (CA) storage, reefer transport, primary/mobile processing units, setting up of ripening chambers and Integrated cold chain supply system etc. through respective State Horticulture Mission as per approved extent allocation, availability of resources.

Under MIDH, assistance is also provided for promotion of marketing infrastructure facilities which includes Static/mobile vending cart/platform, retail outlets, Rural and primary markets/ Apni Mandi/ Direct markets, wholesale and terminal markets etc. which is separately implemented under the scheme.

Regarding price reduction, Minimum Support Price (MSP) is not applicable in case of horticulture crops. It is difficult to provide price support on horticulture produce to horticulture growers due to the highly perishable nature of produce. However, Ministry implements Market Intervention Scheme (MIS) for procurement of agricultural and horticultural commodities which are perishable in nature and are not covered under the Price Support Scheme (PSS). The details of achievements in terms of increased production of fruits, vegetables, spices and flowers are as under:

S. No.	Years	Production ('000 MT)							
		Fruits		Vegetables		Spices		Floriculture	
		Prod.	Pdty.	Prod.	Pdty.	Prod.	Pdty.	Prod.	Pdty.
1	2014-15	86601.68	14.17	169478.23	17.76	6108.28	1.84	2142.89	8.63
2	2015-16	90183.04	14.31	169063.93	16.73	6988.47	2.01	2183.91	7.87
3	2016-17	92918.05	14.58	178172.40	17.40	8122.07	2.21	2392.87	7.80
4	2017-18	96447.00	14.81	184040.79	18.29	8497.31	2.19	2635.91	8.14
5	2018-19	97966.66	14.85	183169.61	18.18	9499.75	2.34	2909.73	9.60
6	2019-20	102079.85	15.07	188283.83	18.26	10137.50	1.43	2999.71	9.28
7	2020-21	102481.17	14.79	200445.23	18.46	11117.34	2.49	2980.05	9.25
8	2021-22	107241.51	15.21	204835.12	18.05	10813.81	2.41	3128.23	11.04
	Total	775918.96	117.79	1477489.14	143.13	71284.53	16.92	21373.3	71.61

The details of import of horticulture crops are as below:

S. No.	Years	Fruits		Vegetables		Spices		Floriculture	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	2014-15	858.11	9543.86	8.24	11.14	161.07	4391.84	4.82	113.37
2	2015-16	839.54	11071.57	140.73	394.45	193.44	5399.95	4.77	114.40
3	2016-17	1040.19	11240.95	8.55	11.12	240.39	5757.83	5.56	133.81
4	2017-18	994.70	12524.55	15.66	25.64	222.33	6385.26	6.24	136.46
5	2018-19	1124.18	13931.65	14.75	24.22	240.56	7932.70	6.37	174.09
6	2019-20	993.73	14137.09	150.10	594.82	320.94	10186.93	7.20	229.64
7	2020-21	1211.83	15764.86	72.90	225.57	344.21	8070.53	3.96	160.38
8	2021-22	1552.13	18342.09	45.99	138.11	363.99	9683.82	6.25	258.53
	Total	8614.41	106556.62	456.92	1425.07	2086.93	57808.86	45.17	1320.68

(Qty in '000'MT & Value in Rs Crore)

The details of export of horticulture crops are as below:

(Qty in '000'MT & Value in Rs Crore)

S. No.	Years	Fruits		Vegetables		Spices		Floriculture	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	2014-15	484.37	3148.08	2019.3	4611.64	923.27	14842.4	22.95	460.8
2	2015-16	654.66	4191.24	2104.4	5237.10	831.68	16630.14	22.69	483.41
3	2016-17	817.06	4974.21	3404.07	5790.71	1014.45	19111.25	22.02	546.71
4	2017-18	714.00	4913.28	2448.00	5297.72	1096.3	20084.91	20.70	507.32
5	2018-19	823.09	5538.15	3192.49	5679.10	1133.89	23217.77	19.69	571.43
6	2019-20	834.84	5496.38	1930.50	4617.34	1193.4	25642.04	16.95	541.61
7	2020-21	973.18	5668.75	2339.68	5388.03	1607.06	29529.39	15.70	575.99
8	2021-22	1164.6	6560.78	2384.85	5979.79	1425.06	29273.86	23.60	771.41
	Total	6465.8	40490.87	19823.29	42601.43	9225.11	178331.76	164.3	4458.68

8.17. The Department of Agriculture and Farmers Welfare was asked to state about the achievements made in augmenting the shelf life/storage life of horticulture products particularly fruits / vegetables / tubers / flowers etc through Research and Development In this regard, the Committee were furnished written reply as given below :

"Achievements made under MIDH to augment the shelf life / storage life of horticulture products particularly fruits / vegetables / tubers / flowers etc are as under:

S. No.	Components	2014-15 (No.)	2015-16 (No.)	2016-17 (No.)	2017-18 (No.)	2018-19 (No.)	2019-20 (No.)	2020-21 (No.)	2021-22 (No.)	Total (No.)
1	Cold Storage	189	273	193	235	177	51	38	57	1213
2	Pack house	2751	4353	3127	2744	3054	2764	6309	3045	28147
3	Integrated Pack house	89	86	148	250	225	120	42	18	978
4	Pre-Cooling Unit	8	20	12	7	18	15	12	5	97
5	Mobile pre cooling unit (5 MT)	21	16	14	6	1	1	0	1	60
6	Primary/ Mobile/ Minimal Processing Units	663	453	452	445	728	474	886	319	4420
7	Refer Van	28	28	29	28	21	23	17	14	188
8	Ripening Chamber	64	87	66	169	51	45	2	21	505
9	Evaporative / low energy cool chamber (8 MT)	289	254	136	295	134	4	129	14	1255
10	Preservation Unit (Low Cost)	815	452	431	927	1861	1027	858		6371
11	Grading Packing Unit	56	42	62	67	14	5	14		260
12	Low Cost onion storage structure (25 MT)	2706	2139	2762	2972	10325	7145	6120	5426	39595
13	Pusa Zero energy cool chamber (100 kg)	2331	42	400	481	100	0	228	0	3582
	Total	10010	8245	7832	8626	16709	11674	14655	5426	86671

Source: MIDH Website & Information received from NHB

STATE SPECIFIC HORTICULTURE DEVELOPMENT PROGRAMMES

8.18. The DA&FW was asked to furnish details regarding State/UT-specific Horticulture Development Plan and action taken thereon for the development of Horticulture Sector in the country. In this regard reply of the Department is as given below :

"(i) National Saffron Mission: - National Mission on Saffron was launched during 2010-11 with an outlay of Rs.400.11 crore with Government of India share of Rs.315.99 crore. It was initially implemented/funded under RKVY.

Phase – I

Objectives of the Mission:

- To make vertical and horizontal improvement in the overall production of saffron.
- To improve the productivity of Saffron.
- To enhance quality of saffron and quality control.
- To enhance research and extension capabilities.
- To develop appropriate systems for organized marketing, quality-based pricing of saffron and for formulating direct transactions between growers, traders, exporters and industrial agencies.

Partners in the project:

- Directorate of Agriculture,
- Directorate of Agriculture, Jammu
- Sher-e- University of Agricultural Sciences & Technology – (SKUAST-K)
- Central Institute of Temperate Horticulture – Srinagar (CITH)
- National Horticulture Board, Government of India

Financial details of the project (Funded under the RKVY Scheme):

Total sanctioned project cost	Rs.400.11 crore
Government of India Share	Rs.315.99 crore
Farmers share	Rs.84.12 crore
Period	Initial Period 2010-11 to 2013-14, First Extension 2014-15 & 2015-16, Second Extension 2016-17 & 2017-18
Funds released as on March 2018	Rs.235.69 crore
Expenditure as on March 2018	Rs.228.75 crore

Phase – II

A decision was taken in 2018-19 by the then Additional Secretary (Horticulture) that the residual activities of Saffron Mission would be funded under MIDH as part of regular Annual Action Plan of the State instead of RKVY.

In the approved Annual Action Plan **2019-20** of undivided J & K, the provision of Rs.80.30 crore was made for the residual activities of National Saffron Mission (100% Gol share) in the approved Action Plan 2019-20 of J & K [*in addition to the regular activities (Rs.55.00 crore) of the State under HMNEH scheme*] for the following activities: -

- (i) Rejuvenation/Replanting of existing saffron areas for improving productivity
- (ii) Improving soil health by INM, IPM and IDM practices
- (iii) Strengthening of irrigation system
- (iv) Development of Sprinkler Irrigation system
- (v) Administrative cost

In the approved Action Plan **2020-21**, a provision of Rs.15.00 crore was also made for the residual activities of National Saffron Mission as spill over activity. During **2021-22**, a provision of Rs.3.11 crore has been made for the residual activities of National Saffron Mission as spill over activity.

UT of J & K has reported expenditure of Rs.26.25 crore during 2019-20, Rs. 0.90 crore during 2020-21 for the residual activities of Saffron Mission.

Saffron Park, Dussu, Pampore, District Pulwama, J&K

(a) On the request of the Government of J&K, one of the components namely, "Quality Testing and Marketing [now named as Saffron Park – India International Kashmir Saffron Trading Centre (IIKSTC)]" was assigned to National Horticulture Board for execution. IIKSTC has been set up at Dussu, Pampore, Pulwama District of J&K at a total cost of Rs.37.81 crores:-

(ii) Prime Minister's Development Package to J&K and Ladakh

PMDP was launched with Central Assistance of Rs. 500.00 Cr towards restoration of damaged horticulture areas and development of horticulture in J&K for 3 years from 2016-17 to 2018-19. Based on the request received from Government of J&K for extension of timelines for implementation of PMDP beyond 31st March 2019, CCEA approved the extension of timeline for implementation of PMDP-2015 beyond 31.3.2019 by 3 years i.e. upto 31.3.2022 along with sharing of outlay of Rs. 500.00 crore between UT of J&K and UT of Ladakh [i.e. Rs. 460.33 Crore (Central share: 414.297) for the UT of J&K and Rs. 39.67 Crore (100%) for UT of Ladakh.

8.19. When asked about the details of specific demand for support under MIDH for Horticulture Item(s) received by the Department of Agriculture and Farmers Welfare and action taken thereon, the Department stated :

"Following demands have been received:

- (A) **Financial assistance to Government of Tamil Nadu for rehabilitation of farmers whose horticulture crops and coconut trees were damaged by GAJA Cyclone in Tamil Nadu**

- (B) **Financial assistance to Government of Kerala to mitigate the calamity arising on account of floods during 2018-19.**
- (C) **Prime Minister's Development Package to J&K and Ladakh**

8.20. The Department was asked for details regarding whether the MIDH Guidelines provide for submission of cases / proposals for claiming relief for natural calamities and whether the Government would come forward to incorporate appropriate provisions in MIDH Guidelines for dealing with such cases. In this regard, the Department informed that "*No separate provision for Natural Calamities are there in the MIDH Guidelines. However, on request of the State Governments additional funds are provided to the States for horticultural crop losses as per MIDH guidelines.*"

REMUNERATIVE PRICE FOR HORTICULTURAL CROPS

8.21. The average rate of profit/income in Horticulture/Agriculture farming varies from crop to crop. However, the policy paper entitled "Strategy for Doubling Income of Farmers in India" published by ICAR-National Institute of Agricultural Economics and Policy Research (NIAP) reveals that agricultural diversification towards high-value crops can potentially increase farm incomes. The non-traditional areas may include shifting orientation from cereal dominance to high value crops like horticulture and livestock. It is revealed that fruits and vegetables provide significantly higher revenue over other agriculture commodities."

8.22. On being asked about the mechanism in place to concurrently assess the marketable surpluses in a season in a particular region or in the country and provide assistance / advice to the States/UTs and farmers regarding marketable surplus Agriculture / Horticulture production, the Department stated that the Government of India implements Market Intervention Scheme (MIS) for procurement of agricultural and horticultural commodities which are perishable in nature. The objective of intervention is to protect the growers of these commodities from making distress sale in the event of a bumper crop during the peak arrival period when the prices tend to fall below economic levels / cost of production. The scheme is implemented on the request of State/UT Government which is ready to bear 50 percent of the loss (25 percent in case of North-Eastern States), if any, incurred on its implementation."

Market Intervention Scheme (MIS) is an ad-hoc scheme under which Horticultural commodities and other agricultural commodities which are perishable in nature are covered though these are not covered under the Minimum Price Support Scheme. In order to protect the growers of these horticultural/agricultural commodities from making distress sale in the event of bumper crop during the peak arrival period when prices fall to very low level, Government implements MIS for a particular commodity on the request of State

Government concerned. Losses suffered are shared on 50:50 basis between Central Government and the State Government.

8.23. The MIS so far implemented is for commodities like apples, kinnoo/malta, garlic, oranges, galgal, grapes, mushrooms, clove, black pepper, pineapple, ginger, red-chillies, coriander seed, isabgol, chicory, onions, potatoes, cabbage, mustard seed, castor seed, copra, palm oil etc. in the States of Himachal Pradesh, Haryana, Punjab, Andhra Pradesh, Maharashtra, Karnataka, Rajasthan, Gujarat, Kerala, Jammu and Kashmir, Mizoram, Sikkim, Meghalaya, Tripura, Uttar Pradesh, West Bengal, Madhya Pradesh, Andaman and Nicobar islands, Lakshadweep etc"

8.24. On being asked about the Schemes / Programmes that are implemented for wastage-reduction and to ensure remunerative prices for fruits, vegetables and Spices, the Department of Agriculture and Farmers Welfare submitted *inter-alia* as follows :

"Department has been implementing Marketing Research and Information Network (MRIN) sub-scheme of ISAM since March 2000 by electronically connecting agri produce markets and Marketing Boards across the country to collect, collate and disseminate mandi prices on day to day basis. The scheme is envisaged to provide remunerative prices to farmers through Market information system. All the information reported by APMCs are available in public domain and also farmers are accessing live market information through Kisan call center, DD Kisan Channel and mobile applications like e-NAM, Kisan Suvidha etc. As of now 2413 markets spread over 28 states and 5 UTs are being covered for more than 300 commodities including major fruits under the scheme.

Department is advocating states under market reforms to keep the fruits and vegetables beyond the purview of state APMC Act.

The Department in their reply also enumerated various steps taken at National/State level for wastage reduction under MIDH, steps taken by Ministry of Food Processing Industries, Agricultural Marketing Infrastructure (AMI), e-Nam and Market Intervention scheme.

Government has implemented various schemes for providing financial assistance for establishment of Post-harvest management infrastructure including cold storage facilities, storage facilities and food processing parks in the country to ensure remunerative prices for fruits and vegetables and reduce its wastage.

8.25. To a specific query of the Committee seeking comments whether the Government would take steps to establish an agency at national level for facilitating smooth sale and procurement of Agriculture / Horticulture produces, the Department stated :

"Currently national agricultural market scheme (e-NAM) online system exists since April 2016 covering 1000 markets, for facilitating sale and procurement of agriculture / horticulture produce being implemented by SFAC under the Agril Marketing Division.

1000 APMC mandis of 18 states and 03 UTs have been integrated into eNAM platform. More than 1.73 crore Farmers have been registered and volume of 5.65 crore MT worth INR 1.87 lakh crore of trade have been recorded on eNAM platform."

MINIMUM SUPPORT PRICE FOR IMPORTANT ESSENTIAL HORTICULTURE CROPS

8.26. When asked whether the Government has proposal to fix Minimum Support Price for each Horticulture Crop, the Department informed the Committee:

"The Commission for Agricultural Costs and Prices (CACP) is mandated to recommend Minimum Support Prices (MSPs) for 22 agricultural commodities and one Fair and Remunerative Price (FRP) for Sugarcane at all India level as per the Terms of Reference given to it by the DA&FW, Ministry of Agriculture and Farmers Welfare, Vide Resolution No. A.49011/6/2009-EA dated 30th July 2009.

Minimum Support Price (MSP) is not applicable in case of horticulture crops under the pur view of MIDH. Further, it is difficult to provide price support on horticulture produce to horticulture growers due to the perishable nature of produce. However, the Government is implementing various schemes in the process of doubling the farmer's income through higher investments in food processing, cold storages and technology to increase shelf life of horticulture produce. However, the Minimum Support Price (MSP) for copra, both edible ball copra and milling copra, has been introduced since 1986 for ensuring a remunerative price to coconut farmers for their product.

PART - II

OBSERVATIONS AND RECOMMENDATIONS

Long-Term Perspective Planning for Horticulture Development In India

1. The Committee note with a sense of pride that India is incredibly bestowed with distinctive and varied agro-climatic conditions that are highly favorable for growing large number of agro and horticultural crops. Horticulture Production Sector in the country has been showing a steady progress over the years. In the year 2014-15, the Government launched the 'Mission for Integrated Development of Horticulture for facilitating the holistic growth of horticulture. The current Horticulture Production level of 333.25 Million Tonnes has surpassed the estimated food grain production of 316.06 Million Tonnes in 2021-22. As a result of increase in production, India has maintained its second rank in the global production of Fruits and Vegetables, next only to China. The Committee, however, notice that there is no independent national policy or perspective planning for the promotion of Horticulture Sector, as such, in the country. The Committee are of the considered opinion that Horticulture Sector can not only contribute to the economic growth of the country but also play a vital role in enhancing the food security as some of the Horticulture Produces like Tapioca, Potato, etc. have the potential for substitute-food. As such, the Committee feel it expedient that there is an urgent need for evolving a suitable national policy for optimal utilization of available National Resources taking into account the factors such as population growth, demand and supply position of food-grains and horticultural produce, etc. The Schemes and Programmes of the Government may be planned and implemented in consonance with available resources to achieve the aforesaid objectives. The Committee, therefore, recommend for evolving a National Policy for holistic promotion and development of Horticulture in the country and its impeccable implementation through long-term perspective planning.

Utilization of Cultivable Waste Lands for Horticulture Production

2. The Committee note that as per the Land Use Statistics 2018-19, out of the total geographical area of 328.7 Million Hectares of the country, agricultural land area is reportedly 180.88 Million Hectares (about 55.02%) and the total cultivated land area in the country is 153.882 (about 46.81%) Million Hectares. The Committee also note that

a total area of 12,219 ha of cultivable waste lands is available in different States / UTs, which has huge potential for Horticultural Crops, if properly reclaimed for the purpose. The Committee hold the emphatic view that necessary action be taken for utilization of these cultivable waste lands available in the country in a time bound manner. The Committee recommend that the Government may take appropriate measures in consultation with concerned States / UTs for the promotion of Horticulture Crops in cultivable waste lands through MIDH Schemes and Mission Interventions. The Committee would like to be apprised of the concrete action taken in the matter.

Export and Import of Horticulture Produce

3. The Committee note that the Indian Horticulture Sector contributes about 33% to the Gross Value Added (GVA) by Agriculture Sector, which contribute roughly 3-4% to the National GDP. In the year 2021-22, Agriculture and Allied Sectors contributed to the tune of Rs.3,74,636.32 Crore, about 11.97% of the total exports and the contribution of Horticulture Sector was Rs. 32,708.18 Crore. The cost value of India's import of Horticulture Products in the same year was about Rs.33,598.17 Crore. The difference between export and import needs to be looked into by the Ministry as there is an imperative need to increase domestic production so that import dependency is reduced to a large extent. The Committee also note that the Department of Agriculture and Farmers Welfare is implementing the Horticulture Cluster Development Programme (HCDP) and Centre of Excellence (CoE) to increase production and reduce Agro-imports. Against this backdrop, the Committee are of the view that the Government must implement the relevant Mission Interventions including the HCDP and CoE in a time bound manner to ensure increased domestic production of strategically important Horticultural Produces and also take possible requisite action for export promotion and import reduction of horticultural produce. The Committee also recommend for establishment of Region / State / District specific Agricultural Produce Exporting Agencies through suitable Mission Interventions under MIDH in order to give necessary fillip to the export of Horticultural Produces. The Committee, would like to be informed of the action taken in this regard.

Promotion of Hydroponics in the Country

4. The Committee find that 'Hydroponics' is the new technique/ technology for cultivation of plants without using soil and this technology can be adopted for cultivation of flowers, herbs, and vegetables. The Committee note that Hydroponics is not covered under MIDH. According to Department of Agriculture and Farmers Welfare, commercial cultivation of Perennial Horticulture Crops through Hydroponics is not picking up in India due to the fact that Hydroponics is promoted by countries like Israel, where there is dearth of natural inputs like soil and water whereas in India these resources are available in abundance. However, the Committee are of the view that the Ministry should look into the aspect whether the hydroponic technology, which is at nascent stage in the country, can be promoted under the MIDH in the hilly areas of the country where soil is a constraint. The Committee would like to be informed of the action taken in the matter.

Implementation of National Horticulture Mission in Uncovered Districts

5. According to the Department of Agriculture and Farmers Welfare, the Mission Structures like 'State Level Executive Committee' (SLEC) and the 'District Mission Committee' (DMC) for the implementation of MIDH have been set up in all the districts of the country. The Committee note that the MIDH Sub-Scheme of 'Horticulture Mission for North East & Himalayan States' (HMNEH) is implemented in all the districts of the North Eastern and Himalayan States. However, the MIDH Sub-Scheme of 'National Horticulture Mission' (NHM) meant for implementation in the States / UTs which are not covered under the HMNEH, is implemented only in 384 districts of these States / UTs and not in all districts. As per the Department of Agriculture and Farmers Welfare, the NHM is not implemented in all the districts of concerned States / UTs in order to avoid thin distribution of already limited resources. The Committee, feel that implementation of NHM in all the districts of the concerned States/UTs will give necessary momentum for the horticulture development in the country. Moreover, the NHM is a Centrally Sponsored Scheme and most of the Scheme Components of the MIDH Mission Interventions are demand driven. Further, the Annual Action Plan (AAP) of States / UTs for the implementation of MIDH are prepared by the States / UTs based on the District Action Plans and the tentative

annual outlay communicated by the Department Agriculture and Farmers Welfare. Hence, implementation of NHM in all the districts of the NHM covered States/UTs may not involve much financial burden. The Committee, therefore, recommend that the NHM be implemented in all the districts of States / UTs covered under the Sub-Scheme of MIDH to ensure holistic development of Horticulture in the country. The Committee would like to be informed of the action taken in the matter.

Need for Review of the Sub-Schemes and the Mission Interventions of MIDH

6. The Mission for Integrated Development of Horticulture (MIDH) comprising of more than 22 Mission Interventions was launched in 2014-15 and it was implemented under six different Sub-Schemes through States / UTs / National Level Agencies. The Committee note that while many of the Mission Interventions are implemented under different Sub-Schemes, some important Interventions like 'Creation of Market Infrastructure', 'Cold Chain Infrastructure', 'Pollination Support Through-Beekeeping', etc. are implemented through designated National Level Agencies. Further, two more new MIDH Interventions of 'Horticulture Cluster Development Programme' (HCDP) and 'Clean Plant Programme' (CPP) have been formulated subsequently and the implementation of the same is under progress.

At present, the MIDH is implemented under five Sub-Schemes (after merger of Sub-Schemes of National Bamboo Mission with MIDH on 01.04.2022) having many Scheme Components and Sub-Components. The MIDH Sub-Schemes of 'Horticulture Mission for North East & Himalayan States' (HMNEH) and the 'National Horticulture Mission' (NHM) are implemented as Centrally Sponsored Schemes. Other three Sub-Schemes, i.e., National Horticulture Board (NHB), Coconut Development Board (CDB) and the Central Institute of Horticulture (CIH) are implemented as Central Sector Schemes.

The Committee also note that existence of similar or related Interventions gives rise to the scope for review and merger. Further, the Scheme Components and Sub Components of the MIDH Sub-Schemes of NHB, CDB & CIH are slightly different from the Mission Interventions enumerated in the MIDH Operational Guidelines. As such, there is no clarity about the number of MIDH Interventions permissible / implemented under each of the five MIDH Sub-Schemes. This ambiguity causes difficulty in

evaluation and appraisal of implementation of MIDH in terms of its Sub-Schemes and its Mission Interventions. The Committee also hold the view that the specialized nature of Mission Interventions, which are presently implemented as part of Central Sector Schemes, can be made as part of the Centrally Sponsored Schemes of HMNEH & NHM. This will pave way for effective implementation of MIDH by the way of realistic assessment of requirements, active involvement of States/UTs including cost sharing, and optimal utilization of available resources, etc. The Committee also recommend that the structure of MIDH including Mission Interventions and MIDH Sub-Schemes be revisited and an all inclusive new set of minimum number Interventions be finalized under each of the MIDH Sub-Schemes to avoid confusion.

Concurrent Updating of MIDH Operational Guidelines

7. The Committee note that the MIDH Operational Guidelines were finalized and issued in 2014. Subsequently many major and minor procedural changes have been made in the implementation of MIDH. The 'National Bamboo Mission', which was implemented as one of Sub-Schemes of MIDH, was taken out of MIDH in 2018 and again w.e.f 2021-22 it has been taken in as part of MIDH. A new Mission Intervention of Horticulture Cluster Development Programme (HCDP) has been launched in May, 2021. Another new intervention of 'Clean Development Programme' which is being formulated, is proposed to be implemented during the period from 2023-30. However, the MIDH Operational Guidelines have not been updated after issue in the year 2014. The Committee, therefore, recommend that necessary action be taken for regular and periodic updating of MIDH Operational Guidelines and the updated MIDH Operational Guidelines be furnished to all stakeholders at the earliest for better coordination among different implementing agencies at different levels. The Committee also recommend that necessary provisions be made in the Guidelines to enable concerned States to prepare the Guidelines in the regional languages to facilitate better understanding of the Mission and its salient features by the probable beneficiaries.

Need for Online Platform for Processing and Monitoring of MIDH Projects

8. The Committee note that the General Council of MIDH and its Executive Committee monitor implementation of the MIDH at the national level. The State Level

Executive Committees (SLECs) of MIDH / State Horticulture Missions (SHMs) are responsible for monitoring the Mission at State / UT level. The States / UTs are to prepare their Annual Action Plan (AAPs) based on the perspective planning and in accordance with the tentative annual outlay communicated by the Central Government (Ministry of Agriculture and Farmers Welfare) and implement the same through the designated Implementing Agencies. Since the MIDH is a demand driven mission, the MIDH Project Proposals are required to be prepared by the concerned beneficiaries in the prescribed format in accordance with the laid down norms in the MIDH Operational Guidelines.

A beneficiary farmer needs to submit the Project Proposals pertaining to HMNEH / NHM to the District Horticulture Officer through HORTNET. According to the Department, the online HORTNET System, which is used by 6-7 States, is outdated and efforts are underway to renew the same to make it fully functional. The State Level Executive Committee (SLEC) of the respective States appraises and approves Projects costing up to Rs. 500 Lakh. The Projects costing more than Rs. 500 Lakh are recommended by SLEC to Empowered Monitoring Committee (EMC) of MIDH for consideration.

The Project Proposals pertaining to some of the MIDH Scheme Components, implemented through National Horticulture Board (NHB) and Coconut Development Board (CDB), are required to be submitted to NHB / CDB respectively. Thus, the Project Proposals submitted in different channels are then examined and processed at different stages. In case the Project Proposals carry the element of Credit Linked Back-ended Subsidy, the concerned beneficiary is required to simultaneously process the case for obtaining loan from banks. Against this backdrop, the Committee hold the view that setting up of the Technical Support Group at District level in all the States/UTs could play a vital role in extending necessary assistance to the prospective beneficiaries in the preparation / processing of MIDH Project Proposals.

The Committee, therefore, recommend that the Ministry may review the aspect of sitting up of Technical Support Groups at District level in the country. The Committee would also like to be apprised of the progress made in respect of the software being developed by the Ministry in place of HORTNET.

Action Plan for Fruits and Vegetables

9. The Committee have been informed that India has emerged as world leader in the production of fruits and vegetables in terms of quantity and variety. Fruits alone account for about 30% of Horticulture Production. Average productivity in fruits has increased from 10 Tonne / Ha in 2004-05 to 15 Tonne/Ha in 2021-22 (1st Advance Estimates). According to Department of Agriculture and Farmers Welfare, efforts are being made to increase production of indigenous fruits so as to reduce import dependency. It has also been stated that there is a total requirement of 1.37 Crore number of planting material of Apple, Walnut, Almond, Date-Palm, Grapes and Kiwi during the next five years.

The Committee are pleased to note that that India is the second largest producer of vegetables after China and accounts for about 11.78% of the total world production of vegetables and the productivity in vegetables has increased from 15 Tonne / Ha in 2004-05 to 18.69 Tonne/Ha in 2021-22 (1st Advance Estimates). A quantum of 2386.67 Million Tonnes of important vegetables mainly onion, Potato, Green Chilly, Tomato, etc worth Rs.5981.92 Crore were exported during the year 2021-22. There is an immense opportunity available in the country to grow vegetables under organic method of cultivation to enhance export.

The Committee appreciate that the Ministry is implementing the MIDH Intervention of Centres of Excellence (CoE) to serve as Demonstration and Training Centres for latest technologies in horticulture development. 44 CoEs have already been approved and out of these, 31 have been completed and are functional. Further, in pursuit of the objectives to increase export and reduce import of high value Horticulture Crops Produce, the Ministry has launched the Horticulture Cluster Development Programme (HCDP) through NHB in May, 2021. Out of 55 clusters planned under HCDP, 12 places have been selected for establishment of clusters in the first phase of HCDP.

Against this backdrop, the Committee recommend that setting up of CoEs and HCDP Clusters be expedited and the programmes for development and distribution of good quality plant seeds be accorded priority to increase production and productivity of fruits and vegetable in the country. The Committee in particular recommend that

production of important vegetables like hopshoots, etc., which have high export potential be given necessary support under the Centres of Excellence and the Horticulture Cluster Development Programme (HCDP). The Committee would like to be informed of the action taken in this regard.

Utilization of Potential of Flowers, Medicinal and Aromatic Plants

10. The Committee have been informed that the growth prospects of cultivation and trade in flowers is very vast in the country as well as abroad. Domestic market of flowers, medicinal and aromatic plants is worth about Rs.25,000 Crore and is still growing. Further, there is huge scope to enhance our share in global trade, which is presently negligible. In 2021-22, total import of floriculture products in the country was of Rs.258.53 Crore and export was of Rs.771.41 Crore. Similarly, cultivation and trade in Medicinal and Aromatic plants also provide a huge scope. The Committee, therefore, recommend that a special Mission Intervention may be designed on the lines of Horticulture Cluster Development Programme (HCDP) / Centre of Excellence for the promotion of flowers and Medicinal & Aromatic plants to boost up their production and quality.

Implementation Of MIDH by Directorate of Cashewnut And Cocoa Development (DCCD) And Directorate of Arecanut and Spices Development (DASD)

11. The Committee note that the Directorate of Cashewnut and Cocoa Development (DCCD) is responsible for implementation of MIDH Interventions and the Scheme Components for the promotion and development of Cashewnut and Cocoa. The Annual Financial Outlay of DCCD since 2019-20 onwards is stated to be Rs.4.87 Crore, Rs.4.873 Crore 3.183 Crore and Rs.5.039 Crore, respectively. The Committee further note that during the year 2021-22, import of Cashewnut and Cocoa was several times higher than that of its export. The Committee, therefore, recommend that the DCCD should boost their efforts in the implementation of MIDH Interventions and Scheme Components for the development of Cashewnut and Cocoa in order to increase export potential.

The Committee also note that the Directorate of Arecanut and Spices Development (DASD) has the mandate for the development of Spices, Arecanut, Aromatic Plants, and betel-vine in the country at National level. The Directorate of

Marketing and Inspection (DMI) deals with the domestic marketing policies and Spices Board deals with export promotion. The Committee are pleased to note that production in terms of value of Spices has increased from 67.65 lakh Tonnes in 2014-15 to 111.17 Lakh Tonnes in 2020-21 and export of Spices has also increased tremendously. There is a high prospect of increasing the cultivation area and production of Spices in the country. The Committee, therefore, recommend that the prospects for increase in production of Spices in the country be assessed properly and necessary budgetary support be provided to DASD for its continuous growth. The Committee would like to be informed of the steps taken in this direction.

Implementation of National Bamboo Mission

12. The Committee note that the National Bamboo Mission (NBM), initially launched in 2006, was subsumed under MIDH in 2014-15. In 2018, the NBM was taken out of MIDH and the restructured NBM under the Natural Resources Management Division was launched during 2018-19. The NBM has again been merged with MIDH w.e.f. 01.04.2022 but the separate Budget Head for NBM has been abolished. The Committee also observe that a considerable quantum of bamboo products are still being imported into the country. In the year 2021-22, bamboo products worth Rs.492.6 Crore were imported. The Committee, therefore, recommend that keeping in view the huge potential of bamboo products, concerted efforts be made to increase their domestic production through suitable interventions of MIDH by increasing adequate allocations and their utilizations for bamboo development so that import could be curtailed.

MIDH Sub-Scheme of Central Institute of Horticulture (CIH), Nagaland

13. According to the Department of Agriculture and Farmers Welfare, the Central Institute of Horticulture, Nagaland was set up in the year 2005-06 under Central Sector Scheme mode to provide Institutional Support for development of Horticulture in the North Eastern States of India and at present, it is one of the five Sub-Schemes of the MIDH. The Institute regularly conducts trainings & skill development courses, technology demonstrations, quality planting material production, nursery accreditation, protected cultivation, post harvest management and marketing. The Committee note that the Scheme Components and Sub-Components implemented by

the Institute are similar to that of another MIDH Sub-Scheme of Horticulture Mission for North East and Himalayan States (HMNEH), for which the Central : State sharing ratio of funds is 90:10. The Committee, therefore, desire that the implementation of MIDH Interventions may be looked into for suitable remedial measures to avoid overlapping, if any. The Committee also recommend that the Ministry may also consider to accord new role to CIH by merging it, if required with any other Institutions of Ministry of Agriculture and Farmers Welfare including the National Horticulture Board (NHB), which is one of Nodal Agency for the implementation of MIDH, as it deems fit. The Committee would like to be informed of the action taken in this regard.

Implementation of MIDH Sub-Scheme of National Horticulture Board (NHB)

14. The National Horticulture Board (NHB), Gurugram was established in the year 1984 as an Autonomous Organization, registered as a society having 29 Field Offices located all over the country. NHB was subsumed as one of the Sub-Schemes of MIDH when the Mission was launched in 2014-15. The NHB implements the MIDH Interventions of Open Field Cultivation, Protected Cultivation, Post Harvest Management, Cold Chain Infrastructure, Technology Development and Transfer for Promotion of Horticulture, Market Information Service for Horticulture, and Horticulture Promotion Services / Expert Services. In addition, the NHB also provides technical support in the implementation of the National Horticulture Mission. The budgetary allocation to NHB for 2022-23 is Rs.300 Crore. Further, two new programmes of 'Horticulture Cluster Development Programme' (HCDP) and 'Clean Plant Programme', have also been added in the ambit of NHB.

Regarding physical achievements by NHB since inception of MIDH in 2014-15, the Committee have been informed that under the component of Post-Harvest Management, 95695 units including pack houses, cold storage units, refrigerated vans, primary/ mobile processing units, ripening chambers, pre-cooling units attached to cold storages and mobile pre-cooling units have been established. A total of 1213 Cold Chain Infrastructure Projects with capacity of 54,18,263 MT were sanctioned upto 2021.22. In regard to variations in the Cold Storage Capacity between different States, it has been stated that the Scheme Component is need /

demand based. Against this backdrop, the Committee desire that the NHB should take all necessary steps to improve its financial performance and ensure that the budgetary allocations for 2022-23 & 2023-24 are optimally utilized. The Committee also recommend that the variation / deviation, if any, among States in the implementation of various Mission Interventions particularly the Cold Chain Infrastructure be looked into and suitable measures be taken to remove the disparity.

Implementation of MIDH Sub-Scheme of Coconut Development Board (CDB)

15. The Coconut Development Board (CDB), a Statutory Body set up in 1981 for the promotion of coconut production in the country, was subsumed as one of the Sub-Scheme, when MIDH was launched in 2014-15. The CDB is implementing many MIDH Interventions including Insurance Schemes for the promotion of coconut development in the country. As per the Department of Agriculture and Farmers Welfare, India stands first in global coconut production and coconut contributes more than Rs. 29581.50 Crore as its share of Annual GDP. The export earnings from coconut & coconut products excluding coir during 2020-21 was recorded as Rs. 6073.80 Crore. However, coconut productivity, which was stated to be 10345 nuts/Ha in 2014-15, has slightly come down to 9430 nuts/Ha in 2020-21. The RE of Rs. 151.84 Crore for CDB was reduced to Rs.129.36 Crore in 2019-20 and the financial performance of CDB in the subsequent years also was not very impressive reportedly due to Covid-19 restrictions, Non-revision of cost norms, low subsidy, etc. Keeping the aforesaid low productivity and other factors into consideration, the Committee recommend that the CDB should improve the pace of implementation of MIDH Mission Interventions and Scheme Components so as to improve its productivity and financial performance by taking necessary corrective measures to address these issues.

MIDH Intervention of Research and Development

16. The Committee note that need based applied research and development works in the areas of 'Seed and planting material, Technology Standardization, Technology acquisition and Imparting training / FLD (Frontline Demonstration)' can be taken up under the MIDH Intervention through Central Government Institutes/State Agricultural Universities/ National Level Agencies. Financial achievements made under this

Intervention during 2020-21, 2021-22 and 2022-23 are stated to be Rs.4.99 Crore, Rs.9.41 Crore and Rs.41.09 Crore respectively. The Committee while appreciating the R&D initiative under the MIDH, also recommend that an appropriate R&D Institution in the Horticulture Sector be designated as nodal agency at the national level for providing technical assistance in examining the merits of Project Proposals so as to avoid duplicity and repetition. The Committee also recommend that the Government may consider to start a new Scheme Component under this Intervention to recognize and reward the outstanding new innovations / discoveries in the Horticulture Sector to incentivize R&D. The Committee would like to be informed of the action taken in this regard.

MIDH Intervention of Production and Productivity Improvement

17. The Committee note that Horticulture production and productivity differs from State to State due to variation in the productivity of different Horticulture Crops and cultivation of different crops in different States. As per the State-wise (2021-22) data regarding area, production and productivity (Production/Area), the productivity in Rajasthan is 2.79 ('000'MT) and it is 18.44 ('000'MT) in Punjab as against the all India average of 12.09 ('000'MT). Although Horticulture Production has been showing an increasing trend yet there has not been much progress in productivity since the launch of MIDH in 2014-15. Moreover, overall productivity is less than major important Horticulture producing countries in the world. Likewise, the Committee note that production and distribution of good quality seeds and planting material are essential for enhancing production and productivity. Under the Mission Intervention nine Scheme Components are implemented towards production and productivity improvement. The data on achievements made in respect of eight of Scheme Components excluding the Scheme for import of planting material is not at all very encouraging. The achievements regarding production of quality planting material is about half of the target since launching of the MIDH. The Committee, therefore, recommend that all the Scheme Components being implemented under the Mission Intervention be reviewed for effective implementation to achieve the desired results. The Committee also recommend that the Government may consider to initiate a new Scheme Component to encourage and incentivize those States / UTs, which bring

about considerable improvement in their production and productivity as compared to previous standards.

MIDH Intervention of Mushroom Production

18. The Committee note that promotion of Mushroom production is supported through area expansion through three Scheme Components for setting up of (i) Production Unit (ii) Spawn Making Unit and (iii) Compost Making Unit. The Scheme Components are implemented under two MIDH Sub-Schemes i.e., (i) National Horticulture Mission and (ii) National Horticulture Board. Further, Mushroom is also supported under Prime Minister Employment Guarantee Programme (PMEGP). However, the year-wise physical and financial progress regarding Mushroom Production have not been made available to the Committee by the Ministry. The Committee also note that the ICAR - Directorate of Mushroom Research (DMR), Solan has been declared as the National Level Agency in 2022 but no Project proposal has been received from DMR. The Committee, therefore, recommend that all aspects of implementation of the MIDH Intervention of Mushroom Production, particularly the role of NHB, be reviewed for effective implementation of Components of the Scheme.

MIDH Intervention of Human Resource Development (HRD In Horticulture

19. The Committee note that under the MIDH Intervention of Human Resource Development (HRD), 12 different Scheme Components have been designed for training of farmers, entrepreneurs, field level workers and officers through different Implementing Agencies of MIDH Sub-Schemes including ICAR Research Stations, State Horticulture Directorates etc. A total of 803797 farmers have been trained under different Scheme Components during the period from 2014-15 to 2021-22. In this regard, the Committee are of the opinion that feedback on effectiveness of the existing Scheme Components of the Intervention be obtained from all Stakeholders for improvement in Human Resource Development. The Committee also recommend that States / UTs may be encouraged to set up an effective Institutional Framework through Research Institutions, State Agricultural Universities, etc and to conduct short term training courses, awareness programmes, Frontline Demonstrations, etc on regular basis for the targeted farmers, entrepreneurs, field level workers and officers.

MIDH Intervention of Pollination Support Through Bee-Keeping

20. The Committee note that the National Bee Board (NBB), a Registered Society is the designated Nodal Agency for the promotion of Scientific Beekeeping in the country. The NBB is implementing the National Beekeeping and Honey Mission (NBHM) which is comprised of three Mini Missions (MM-I, II & III) under which main thrust will be given for the setting up of infrastructural facilities, etc. for promotion and development of Scientific Beekeeping in the country. Although, NBHM is implemented in all the States/UTs, yet it is Project based scheme and no State-wise targets have been fixed. The activities are sanctioned on the basis of Project proposals received from implementing agencies viz., State Governments, ICAR, Central/State Agriculture Universities, concerned Ministries/Departments, Members of NBB, etc. The Committee therefore, recommend that the implementation of NBHM in different States/UTs be reviewed and the States /UTs lagging in the implementation be advised to implement this Mission Intervention to ensure that the minimum level of infrastructure facilities required for production and productivity in the field of Beekeeping are set up in the country.

MIDH Intervention of Creation of Market Infrastructure

21. The Committee note that strengthening of Marketing Infrastructure including wholesale and rural markets for Horticulture Commodities to enable farmers to realize better price and to create general awareness among farmers, consumers, entrepreneurs and market functionaries on market related agricultural practices are the main objectives of the Mission Intervention. For the establishment of Marketing Infrastructure for Horticultural Produces in Government / Private / Cooperative Sectors, a new Scheme of “Creation of Integrated Supply Chain for Fruits and Vegetables in Major Cities in the Country” has also been rolled out in April, 2020. Out of the 22 Project Proposals received from 13 States, most proposals were found lacking many information/documents/clarifications for their further processing. Despite, several letters/reminders only the States of Kerala and Odisha submitted the complete Project proposals with all requisite documents for the districts of Trissur & Ernakulam (Kerala) and Bhubaneswar & Sambalpur (Odisha) respectively and these Projects have been sanctioned. In this regard, the Committee recommend that the

matter be taken up with all the States / UTs for effective implementation of all the Schemes under the Mission Intervention to improve the Supply Chain Infrastructure at the District and Taluk level in the Country.

Compilation of State-Wise Data on Horticulture Crops

22. The Committee note that as per the MIDH Operational Guidelines, the strengthening of Horticulture Statistical Database would be implemented through State Horticulture Missions on a project mode. At present, the State/UT-wise All-India level data on 77 important Horticulture Crops under broad crop groups of Fruits, Vegetables, Aromatic & Medicinal Plants, flowers, Plantation Crops, Honey and Spices, are released by the Horticulture Division for every agriculture year by the way of three advance and one final estimates, based on the data collected from the States/UTs. However, the State/UT-wise data on Horticulture crops of the country is not readily available with the Ministry. In this regard, the Committee recommend that the State/UT-wise data on Horticulture crops of the country be prepared as provided in the MIDH Operational Guidelines so that the correct position in respect of Horticulture produce may be known and future strategies planned accordingly.

Assessment of Horticulture Potential of States / UTs

23. The Committee note that the MIDH has been launched for the holistic growth of Horticulture Sector of the country. The States/UTs are to prepare their Annual Action Plan based on their perspective planning for the development of their Horticulture sector and in accordance with the tentative budgetary allocation communicated to them. However, the Committee find that implementation of MIDH is very poor in certain States particularly in the North Eastern States. The Committee do not accept the reply that the Mission is implemented on the basis of demand and need from States / UTs / beneficiaries. The Department of Agriculture and Farmers Welfare should conduct an independent assessment study of Horticulture Potential of each State / UT and give proper guidance and assistance to States / UTs to fully utilize the available resources. The Committee therefore, recommend that the States / UTs, which are lagging behind in the implementation of MIDH be advised/motivated for the implementation of MIDH for effective implementation of the Mission.

Budgetary Allocation for MIDH

24. The Committee note that the 'Mission for Integrated Development of Horticulture' (MIDH) is demand driven in each of its segment and funds for the Mission are allocated in accordance with the Annual Action Plan submitted by the States/UTs. The Committee also note that the Horticulture Production in the country has been showing an increasing trend over the years which was estimated to be 333.25 Million Tonnes in 2021-22. However, the budgetary support and the funds finally released for MIDH during the financial years 2017-18 onwards has not been commensurate with the growth of horticulture production. The Committee were also informed that delay in release of funds from State Finance Departments to State Horticulture Missions, difficulty in utilizing SCSP funds under the Scheme, banks not giving credit facilities for the Post Harvest Management of Projects under MIDH, particularly in North-East and Himalayan States, the Covid Pandemic during Financial Year 2020-21, non-revision of cost norms and pattern of assistance were some of the reasons for slightly reduced allocation of funds for Sub-schemes under the MIDH. The Committee, therefore, recommend that immediate steps may be taken for effective implementation of Sub-Schemes under the MIDH so that the funds allocated are utilized fully.

Remunerative Prices for Horticulture Crops

25. The Committee note that a variety of agriculture and horticulture crops are raised in the different agro-climatic zones of the country and as such there are vast variations in their production and productivity. Further, the average income from Agriculture as well as Horticulture also varies from crop to crop. At present, 23 agriculture crops including copra, sugarcane, cotton and jute are supported under the Minimum Support Price (MSP) mechanism, which is not applicable in case of horticulture crops. The Market Intervention Scheme, which aims to provide remunerative prices for horticultural and other agricultural commodities in case of excess production and distress sale, is implemented on the specific request of States / UTs which are willing to share the loss with the Central Government on a 50:50 basis (25 percent in case of North-Eastern States). The market forces determine the prices of other agriculture and horticulture produces. An online system of National Agricultural Market (e-NAM) covering 1000 markets has been launched as

part of the Integrated Scheme for Agricultural Marketing (ISAM) to facilitate sale and procurement of agriculture / horticulture produces in the country. The Government is also implementing a Central Sector Scheme of Formation and Promotion of 10,000 Farmers Producers Organizations (FPOs) towards promotion of marketing infrastructure. In addition to MIDH Schemes, various other Schemes are also implemented by the Government for post-harvest management of horticultural produces like Storage facilities, Cold Storage facilities, Food Processing Parks, etc to facilitate remunerative prices for horticultural crops especially perishable crops.

Keeping in view the foregoing, the Committee recommend that the States / UTs may be advised to chalk-out time bound plan for increasing the productivity and quality in respect of those major horticultural crops, the productivity rate of which is found to be lower than sustainable rate as also crop diversification processes wherever it is required. The Committee also express the opinion that non-availability of remunerative prices for crops could be the prime discouraging factor that may affect production and productivity in both horticulture and agriculture. The Committee, therefore, recommend that the Government may review not only the policy and functioning of the mechanism for public procurement of agriculture and horticulture produces in the country but also the aspect of availability of marketing infrastructure for perishable horticulture produce in order to facilitate remunerative prices for the major horticultural crops in each State /UT. The Committee in particular recommend that the States / UTs may be encouraged to ensure effective implementation of the existing Market Intervention Scheme, under which necessary relief can be provided to farmers in case of excess production and fall in prices in respect of major Horticultural Produces. The Committee may be apprised of the action taken in the matter.

NEW DELHI;
04 August, 2023
13 Sravana, 1945(Saka)

P.C. GADDIGOUDAR
Chairperson,
Standing Committee on Agriculture,
Animal Husbandry and Food Processing

Crop-Wise Area and production of Horticulture Crops 2021-22(1st Adv. Est.)

		Area in '000 Ha																									
		Production in '000 MT																		Productivity= Production/Area							
Sl. No.	STATES/UTs	FRUITS			VEGETABLES			PLANTATION			AROMATICS & MEDICINAL			FLOWERS			SPICES			HONEY		TOTAL					
		A	P	Prod.	A	P	Prod.	A	P	Prod.	A	P	Prod.	A	P	Prod.	A	P	Prod.	P	A	P	Prod.				
															LOOSE	CUT	Total										
1	ANDHRA PRADESH	757.24	18010.39	23.78	234.36	6434.93	27.46	348.50	1275.87	3.66	4.20	14.35	3.42	17.51	279.85	0.00	17.51	1.00	201.79	796.34	3.95	1.85	1563.59	26813.62	17.15		
2	ARUNACHAL PRADESH	48.14	125.84	2.61	2.62	17.41	6.64	2.67	11.76	4.41	0.24	0.16	0.67	0.00	0.00	0.00	0.00	1.00	12.39	37.69	3.04	0.13	66.06	193.00	2.92		
3	ASSAM	159.98	2504.19	15.65	302.68	3669.26	12.12	89.29	159.71	1.79	4.62	0.18	0.04	5.31	35.58	57.80	63.11	11.89	100.49	310.51	3.09	1.35	662.36	6738.58	10.17		
4	BIHAR	363.77	4986.74	13.71	903.47	17767.84	19.67	12.16	54.06	4.45	4.85	22.49	4.64	1.21	10.95	0.19	1.40	1.16	9.21	14.64	1.59	16.00	1294.67	22872.91	17.67		
5	CHHATISGARH	221.93	2471.09	11.13	490.06	6887.65	14.05	33.90	30.75	0.91	5.15	32.55	6.32	11.19	52.68	178.05	189.25	16.91	12.51	17.52	1.40	0.95	774.75	9671.25	12.48		
6	GUJARAT	426.11	8243.67	19.35	785.80	15687.11	19.96	34.70	153.96	4.44	0.00	0.00	0.00	19.99	189.34	0.00	19.99	1.00	665.10	992.14	1.49	0.75	1931.68	25266.96	13.08		
7	HARYANA	82.00	1398.97	17.06	372.37	6295.61	16.91	0.00	0.00	0.00	0.30	0.34	1.13	2.69	24.96	1.14	3.83	1.42	12.01	61.22	5.10	4.80	469.37	7787.04	16.59		
8	HIMACHAL PRADESH	234.78	796.79	3.39	91.99	1875.24	20.39	0.00	0.00	0.00	1.12	0.91	0.81	0.37	1.30	10.45	10.83	28.94	7.84	19.16	2.45	5.85	336.10	2709.69	8.06		
9	JAMMU & KASHMIR	335.02	2237.87	6.68	60.12	1338.27	22.26	0.00	0.00	0.00	3.83	0.01	0.00	0.10	0.21	1.02	1.13	10.98	5.04	1.14	0.23	2.30	404.12	3580.82	8.86		
10	JHARKHAND	105.64	1293.55	12.24	311.72	3773.67	12.11	15.60	6.40	0.41	0.00	0.00	0.00	1.20	4.81	3.81	5.01	4.17	0.00	0.00	0.00	1.65	434.16	5083.88	11.71		
11	KARNATAKA	452.74	8549.03	18.88	500.93	8099.77	16.17	1364.21	5392.67	3.95	2.25	18.28	8.14	37.68	332.52	185.10	222.78	5.91	368.76	745.42	2.02	2.30	2726.58	23325.09	8.55		
12	KERALA	313.91	1939.45	6.18	24.45	544.95	22.29	984.90	3498.92	3.55	0.01	0.00	0.02	0.26	0.12	1.73	1.99	7.58	159.50	173.09	1.09	2.00	1483.03	6160.28	4.15		
13	MADHYA PRADESH	348.13	6141.15	17.64	1031.06	20591.22	19.97	0.00	0.00	0.00	41.45	105.39	2.54	30.07	340.01	10.87	40.94	1.36	715.67	3602.43	5.03	2.60	2166.37	30793.67	14.21		
14	MAHARASHTRA	840.86	12296.11	14.62	1180.43	16783.40	14.22	224.40	356.64	1.59	0.84	1.53	1.82	11.30	64.63	0.35	11.65	1.03	91.99	494.61	5.38	1.85	2349.81	29999.10	12.77		
15	MANIPUR	41.62	463.86	11.15	32.90	339.80	10.33	0.90	0.30	0.33	0.04	0.12	2.67	0.07	0.01	0.17	0.24	3.50	9.05	58.90	6.51	0.40	84.58	863.55	10.21		
16	MEGHALAYA	37.05	376.02	10.15	49.42	519.41	10.51	26.96	34.09	1.26	0.00	0.00	0.00	12.47	0.00	0.36	12.83	1.03	15.72	76.54	4.87	0.25	141.63	1006.67	7.11		
17	MIZORAM	65.97	345.36	5.24	40.67	224.60	5.52	14.15	14.20	1.00	0.77	0.78	1.02	0.08	0.00	0.80	0.88	10.75	27.75	101.38	3.65	0.25	149.38	687.36	4.60		
18	NAGALAND	34.01	316.59	9.31	41.09	457.92	11.14	2.85	8.29	2.91	0.11	0.86	7.84	0.05	0.00	0.22	0.27	5.78	12.03	57.74	4.80	0.65	90.14	842.26	9.34		
19	ODISHA	366.64	2782.05	7.59	674.97	9523.71	14.11	266.74	394.62	1.48	1.92	0.61	0.32	5.61	31.57	33.56	39.18	6.98	147.88	295.21	2.00	1.65	1463.76	13062.98	8.92		
20	PUNJAB	102.75	2202.10	21.43	290.30	5758.47	19.84	0.00	0.00	0.00	13.37	3.02	0.23	2.18	13.70	0.00	2.18	1.00	30.97	112.47	3.63	17.00	439.56	8106.77	18.44		
21	RAJASTHAN	69.89	938.75	13.43	195.46	2247.83	11.50	0.00	0.00	0.00	408.96	235.10	0.57	3.66	8.31	0.00	3.66	1.00	972.55	1163.92	1.20	11.20	1650.52	4605.11	2.79		
22	SIKKIM	20.16	50.76	2.52	9.64	65.45	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.24	16.50	0.09	0.33	1.36	38.41	89.72	2.34	0.45	68.45	222.97	3.26		
23	TAMIL NADU	320.10	5823.88	18.19	339.76	9074.90	26.71	657.24	3844.95	5.85	20.44	312.91	15.31	42.92	515.71	5.54	48.46	1.13	106.64	182.30	1.71	2.20	1487.10	19762.39	13.29		
24	TELANGANA	177.81	2309.96	12.99	75.71	1682.28	22.22	0.79	6.06	7.63	0.22	3.50	15.84	3.04	44.42	0.00	3.04	1.00	141.62	793.62	5.60	0.85	399.19	4840.69	12.13		
25	TRIPURA	55.45	571.43	10.30	48.57	848.06	17.46	15.27	36.62	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.74	28.56	4.24	0.20	126.03	1484.87	11.78		
26	UTTAR PRADESH	505.134	11259.235	22.29	1324.906	29584.058	22.33	0.00	0.00	0.00	135.04	13.53	0.10	22.76	49.66	69.73	92.49	4.06	394.81	269.91	0.68	22.50	2382.64	41268.63	17.32		
27	UTTARAKHAND	181.07	648.90	3.58	99.84	1043.75	10.45	0.00	0.00	0.00	0.00	0.00	0.00	4.75	3.02	11.25	16.00	3.37	14.65	65.99	4.50	2.70	300.30	1775.62	5.91		
28	WEST BENGAL	283.56	3717.98	13.11	1511.19	28229.16	18.68	55.70	313.51	5.63	0.00	0.00	0.00	29.73	74.53	218.71	248.44	8.36	61.17	250.67	4.10	20.00	1941.35	32824.55	16.91		
29	OTHERS	15.87	121.86	7.68	38.59	516.78	13.39	119.71	258.49	2.16	0.00	0.00	0.00	0.18	0.77	0.02	0.19	1.09	1.69	2.74	1.62	0.29	176.04	900.94	5.12		
	All India Total	6967.32	102923.56	14.77	11065.06	199882.49	18.06	4270.64	15851.87	3.71	649.71	766.60	1.18	266.62	2095.16	790.96	1057.58	3.97	4343.98	10815.60	2.49	125.01	27563.33	333251.25	12.09		

Area- A Production-P Productivity-Prod.

Annexure -II

(Value in Rs. Crore)

Export	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
India's total export	1634318.29	1905011.09	1896348.42	1716384.40	1854096.00	1956514.53	2307726.20	2219854.18	2159043.22	3129145.00
India's total agri and allied exports	226811.79	261972.91	238835.10	214844.69	225900.89	250648.26	273745.05	252297.48	309939.35	374636.32
India's total Horticulture Exports	16459.41	21089.95	21356.25	23969.68	27049.60	26640.38	27218.11	27127.52	31780.86	32708.18
% share of agri and allied in total exports	13.88	13.75	12.59	12.52	12.18	12.81	11.86	11.37	14.36	11.97
% share of Horticulture in total exports	1.01	1.11	1.13	1.40	1.46	1.36	1.18	1.22	1.47	1.05

Import	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
India's total import	2669161.96	2715433.91	2737086.58	2490305.54	2566820.00	3001033.43	3594373.00	3360954.46	2915957.70	4554180.00
India's total agri and allied imports	107559.95	105588.78	125991.74	144416.02	168339.88	157027.54	142726.86	151784.20	158684.08	238738.66
India's total Horticulture Import	13963.58	14754.36	19614.83	24071.89	24481.63	25915.09	29374.03	28224.93	28207.74	33598.17
% share of agri allied import in total imports	4.03	3.89	4.60	5.80	6.56	5.23	3.97	4.52	5.44	5.24
% share of Horticulture in total imports	0.52	0.54	0.72	0.97	0.95	0.86	0.82	0.84	0.97	0.74

State-wise details of the major horticulture produce:

Sl. No.	State/ UT	Major Fruits	Major Vegetables
1	ANDHRA PRADESH	Banana, Mango, Sweet Orange (Mosambi), Apple, Papaya	Tomato, Onion, Chillies (Green), Brinjal, Elephant Foot Yam
2	ARUNCHAL PRADESH	Mandarin, Pineapple, Kiwi, Banana, Apple	Cabbage, Tomato, Brinjal, Cauliflower, Pumpkin/Sitaphal/Kaddu
3	ASSAM	Banana, Pineapple, Jackfruit, Mandarian, Lime/Lemon	Potato, Cabbage, Cauliflower, Tomato, Brinjal
4	BIHAR	Banana, Mango, Guava, Litchi, Lime/Lemon	Potato, Tomato, Onion, Brinjal, Cauliflower
5	CHHATTISGARH	Banana, Mango, Papaya, Jackfruit, Guava	Tomato, Potato, Brinjal, Cauliflower, Cabbage
6	GUJARAT	Banana, Papaya, Mango, Pomegranate, Lime/Lemon	Potato, Tomato, Onion, Brinjal, Okra/Ladyfinger
7	HARYANA	Mandarin, Guava, Watermelon, Mango, Muskmelon	Potato, Cauliflower, Radish, Onion, Tomato
8	HIMACHAL PRADESH	Apple, Mango, Pear, Mandarian, Plum	Tomato, Peas, Potato, Cabbage, Mushroom
9	JAMMU & KASHMIR	Apple, Walnut, Pear, Mango, Plum	Potato, Tomato, Okra/Ladyfinger, Radish, Cauliflower
10	JHARKHAND	Mango, Jackfruit, Papaya, Guava, Lime/Lemon	Potato, Peas, Cauliflower, Cabbage, Onion
11	KARNATAKA	Banana, Mango, Grapes, Papaya, Lime/Lemon	Onion, Tomato, Potato, Brinjal, Chillies (Green)
12	KERELA	Banana, Mango, Jackfruit, Papaya, Pineapple	Tapioca, Elephant Foot Yam, Bittergourd, Cabbage, Beans
13	MADHYA PRADESH	Mandarin, Mango, Guava, Papaya, Banana	Onion, Tomato, Potato, Brinjal, Cauliflower
14	MAHARASHTRA	Banana, Grapes, Pomegranate, Mandarian, Sweet Orange (Mosambi)	Onion, Tomato, Potato, Brinjal, Chillies (Green)
15	MANIPUR	Pineapple, Banana, Lime/Lemon, Mandarian, Passion Fruit	Cabbage, Peas, Tomato, Cauliflower, Potato
16	MEGHALAYA	Pineapple, Banana, Mandarian, Jackfruit, Papaya	Potato, Cabbage, Tapioca, Tomato, Radish
17	MIZORAM	Banana, Pineapple, Mandarian, Papaya, Lime/Lemon	Cabbage, Tomato, Okra/Ladyfinger, Bittergourd, Brinjal
18	NAGALAND	Pineapple, Banana, Mandarin, Passion Fruit, Papaya	Cabbage, Tapioca, Potato, Chillies (Green), Tomato
19	ODISHA	Mango, Banana, Jackfruit, Lime/Lemon, Watermelon	Brinjal, Tomato, Cabbage, Okra/Ladyfinger, Cauliflower
20	PUDUCHERRY	Banana, Mango, Guava, Sapota, Watermelon	Tapioca, Brinjal, Okra/Ladyfinger, Green Chilly, Bittergourd
21	PUNJAB	Mandarin, Guava, Mango, Muskmelon, Pear	Potato, Peas, Cauliflower, Radish, Tomato
22	RAJASTHAN	Mandarin, Mango, Pomegranate, Guava, Lime/Lemon	Onion, Potato, Tomato, Cauliflower, Chillies (Green)
23	SIKKIM	Mandarin, Guava, Banana, Pear, Kiwi	Potato, Beans, Tomato, Brinjal, Onion
24	TAMIL NADU	Banana, Mango, Watermelon, Aonla/Gooseberry, Guava	Tapioca, Tomato, Onion, Brinjal, Cabbage
25	TELENGANA	Mango, Sweet Orange (Mosambi), Lime/Lemon, Papaya, Banana	Tomato, Onion, Brinjal, Chillies (Green), Okra/Ladyfinger
26	TRIPURA	Pineapple, Jackfruit, Banana, Mango, Papaya	Potato, Cabbage, Brinjal, Cauliflower, Radish
27	UTTAR PRADESH	Mango, Banana, Guava, Watermelon, Muskmelon	Potato, Peas, Tomato, Bottlegourd, Onion
28	UTTARAKHAND	Mango, Pear, Apple, Peach, Plum	Potato, Tomato, Peas, Cabbage, Radish
29	WEST BENGAL	Banana, Mango, Pineapple, Papaya, Watermelon	Potato, Brinjal, Cabbage, Cauliflower, Tomato
30	ANDAMAN AND NICOBAR	Banana, Mango, Papaya, Sapota, Lime/Lemon	Bittergourd, Bottlegourd, Brinjal, Cucumber, Pumpkin/Sitaphal/Kaddu
31	GOA	Banana, Mango, Pineapple	Mushroom

Sl. No.	State/ UT	Major Spices	Major Flowers	Major Plantation Crops
1	ANDHRA PRADESH	Chilly, Turmeric, Coriander, Ajwan, Tamarind	Chrysanthemum, Jasmine, Rose, Marigold, tube rose	Arecanut, Cashewnut, Cocoa, Coconut
2	ARUNCHAL PRADESH	Ginger, Chilly, Turmeric, Black pepper, Large cardamom	Orchid, Marigold	Arecanut, Coconut
3	ASSAM	Chilly, Ginger, Turmeric, Garlic, Coriander	Jasmine, Marigold, Gerbera, Gladiolus, Orchid, Rose.	Arecanut, Cashewnut, Coconut
4	BIHAR	Turmeric, Ginger, Chilly, Garlic, Coriander	Marigold, Rose, Jasmine, Tube Rose	Coconut
5	CHHATTISGARH	Chilly, Turmeric, Ginger, Garlic, Coriander	Gladiolus, Marigold, Tuberose, Rose, Chrysanthemum.	Cashewnut, Coconut
6	GUJARAT	Coriander, Garlic Fennel, Ginger, Turmeric	Jasmine, Marigold, Rose	Cashewnut,
7	HARYANA	Garlic, Coriander, Turmeric, Ginger, Fenugreek	Marigold, Rose, Tuberose, Gladiolus, Chrysanthemum.	-
8	HIMACHAL PRADESH	Garlic, Ginger, Chilly, Coriander, Cumin	Marigold, Rose, Tuberose, Gladiolus, Chrysanthemum.	-
9	JAMMU & KASHMIR	Saffron, Ginger, Chilly, Turmeric,	Carnation, Marigold, Rose, Tulip	-

		Garlic		
10	JHARKHAND	Garlic, Coriander, Chilly, Ginger, Turmeric, Cumin	Rose, Marigold, Tuberose	Cashewnut
11	KARNATAKA	Black pepper, chilly, Turmeric, Ginger, Garlic	Gerbera, Jasmine, Marigold, Rose, Tuberose	Arecanut, Cashewnut, Cocoa, Coconut
12	KERELA	Black pepper, Cardamom, Ginger, Turmeric, Garlic	Gerbera, Rose, Marigold, Jasmine, Anthurium.	Arecanut, Cashewnut, Cocoa, Coconut
13	MADHYA PRADESH	Garlic, Coriander, Chilly, Ginger, Turmeric, Cumin	Gladiolus, Chrysanthemum, Marigold, Rose, Tuberose.	
14	MAHARASHTRA	Turmeric, ginger, Chilly, Garlic, Coriander, Fenugreek,	Rose, Marigold, Tuberose, Carnation	Arecanut, Cashewnut, Coconut
15	MANIPUR	Ginger, Turmeric, Black pepper, Garlic, Tejpat	Marigold, Rose, Gladiolus, Tuberose, Anthurium, Carnation	Cashewnut
16	MEGHALAYA	Ginger, Turmeric, Black pepper, Garlic, Tejpat	Anthurium, Carnation, Gerbera, Orchid, Rose.	Arecanut, Cashewnut,
17	MIZORAM	Chilly, Ginger, Turmeric	Anthurium, Orchid, Rose,	Arecanut, Coconut
18	NAGALAND	Chilly, Ginger, Turmeric, Black Pepper, Garlic, Cardamom	Anthurium, Gerbera, Marigold, Rose, Tuberose.	Arecanut, Cashewnut, Coconut
19	ODISHA	Chilly, Turmeric, Ginger, Garlic, Coriander,	Gerbera, Gladiolus, Marigold, Rose, Tuberose	Cashewnut, Coconut
20	PUDUCHERRY	Chilly, Turmeric, Black pepper, Tamarind	Rose, Marigold, Tuberose	Coconut
21	PUNJAB	Chilly, Turmeric, Garlic, Celery	Rose, Marigold, Tuberose	-
22	RAJASTHAN	Cumin, Garlic, Coriander, Fenugreek, Fennel,	Rose, Marigold, Tuberose	-
23	SIKKIM	Turmeric, Ginger, Large cardamom	Orchid, Marigold, Gladiolus, Gerbera, Carnation.	-
24	TAMIL NADU	Chilly, Turmeric, Black Pepper, Ginger	Chrysanthemum, Jasmine, Rose, Tuberose, Orchid.	Arecanut, Cashewnut, Cocoa, Coconut
25	TELENGANA	Chilly, Turmeric, Ginger, Coriander, tamarind	Chrysanthemum, Jasmine, Rose, Tuberose, Orchid.	Coconut
26	TRIPURA	Chilly, Turmeric, Ginger, Black pepper,	Rose, Marigold, Tuberose	Arecanut, Cashewnut, Coconut
27	UTTAR PRADESH	Garlic, Coriander, Chilly, Turmeric, Mint	Gladiolus, Marigold, Rose	-
28	UTTARAKHAND	Garlic, Ginger, Chilly, Turmeric, Coriander	Gerbera, Marigold, Rose, Tuberose.	Cashewnut, Coconut
29	WEST BENGAL	Turmeric, Ginger, Chilly, Black Pepper, Coriander, garlic,	Gladiolus, Jasmine, Marigold, Rose, Tuberose	Arecanut, Cashewnut, Coconut
30	ANDAMAN AND NICOBAR	Black pepper, Ginger, Chilly, Turmeric, Cinnamon, Nutmeg, Clove	Marigold, Rose	Coconut
31	GOA	Black pepper, nutmeg	Marigold, Rose	Coconut

Annual Action plan- 2019-20

SI.No	Activity	Target 2019-20	Achievement on 2019-20
		Financial Outlay (in lakhs)	Financial Outlay (in lakhs)
	Establishment of new plantation(ha)		
	Cashew	64.89	20.66
	Cocoa	28.73	28.18
2	Replacing senile plantations and replanting with HYV's (ha)	123.44	123.44
3	Rejuvenation of Cashew (ha)	58.00	58.00
4	Nursery Programmes (Quality planting material production) (Nos.)	80.50	62.74
5	Publicity, HRD and other supporting programmes (Nos.)	131.83	109.78
	Total	487.39	402.80

Annual Action plan- 2020-21

SI.No	Activity	Target 2020-21	Achievement on 2020-21
		Financial Outlay (in lakhs)	Financial Outlay (in lakhs)
	Establishment of new plantation(ha)		
	Cashew	109.80	107.77
	Cocoa	18.00	17.96
2	Replacing senile plantations and replanting with HYV's (ha)	88	88.00
3	Rejuvenation of Cashew (ha)	3	2.94
4	Nursery Programmes (Quality planting material production) (Nos.)	47	26.43
5	Publicity, HRD and other supporting programmes (Nos.)	52.59	51.33
	Total	318.39	294.43

Annual Action plan- 2021-22

SI.No	Activity	Target 2021-22	Achievement on 2021-22
		Financial Outlay (in lakhs)	Financial Outlay (in lakhs)
	Establishment of new plantation(ha)		
	Cashew	133.95	108.91
	Cocoa	23.99	23.81
2	Replacing senile plantations and replanting with HYV's (ha)	189.60	184.8
3	Rejuvenation of Cashew (ha)	6.00	5.17
4	Nursery Programmes (Quality planting material production) (Nos.)	57.03	13.40
5	Publicity, HRD and other supporting programmes (Nos.)	93.38	69.66
	Total	503.95	405.75

**Directorate of Arecanut and Spices Development - Budgetary details
from 2019-20 to 2021-22**

S. No.	Details of measures	Unit	Cost per unit (Rs in Lakhs)	2019-20		2020-21		2021-22	
				Outlay (Rs. In lakhs)	Utilisation (Rs. in lakhs)	Outlay (Rs. In lakhs)	Utilisation (Rs. in lakhs)	Outlay (Rs. In lakhs)	Utilisation (Rs. in lakhs)
I	Production and Distribution of Planting Materials								
1	Production of nucleus planting materials								
a	Black Pepper / Betelvine	in lakhs	8	164.560	163.026	189.400	188.157	195.960	194.275
b	Ginger rhizomes	in tonnes	0.3	41.625	41.625	44.430	44.430	57.810	57.810
c	Ginger rhizomes protray method	in lakhs	1.2	3.426	3.426	2.964	2.964	4.770	4.770
d	Turmeric rhizomes	in tonnes	0.3	146.250	146.250	171.600	171.600	173.100	173.100
e	Turmeric rhizomes protray method	in lakhs	1.2	5.772	5.772	4.464	4.464	6.570	6.570
f	Chilli seeds	quintals	0.75	24.405	24.405	23.055	23.055	24.038	24.038
g	Seed spices	in tonnes	0.4	42.200	42.200	52.600	52.600	65.000	65.000
h	Garlic	in tonnes	0.5	23.650	23.650	42.650	42.650	40.750	40.750
i	Aromatic Plants	ha	0.75	32.250	32.250	40.500	40.500	45.000	45.000
j	Bush Pepper	Nos	40			4.000	4.000	15.800	15.800
k	Tree spices grafts /seedlings								
	i. Nutmeg grafts plagiotrops	in lakhs	80	9.800	9.800	10.430	10.430	9.310	9.310
	ii. Nutmeg grafts orthotrops	in lakhs	140	29.200	29.200	46.800	46.800	39.600	39.600
	iii. Tamarind grafts	in lakhs	20	23.650	23.650	29.000	29.000	32.300	32.300
	iv. Clove /Allspice seedlings	in lakhs	5	4.800	4.800	5.400	5.400	6.140	6.140
	v. Cinnamon /Cassia /Curry leaf seedlings	in lakhs	5	16.975	16.975	20.575	20.575	21.710	21.710
2	Estt of nursery centre for spices and aromatic crops	Nos	3	75.000	75.000	60.000	60.000	45.000	45.000
3	Estt. of Seed Processing and Storage infrastructure	Nos	5	50.000	50.000	50.000	50.000	50.000	50.000
4	Estt of Nursery structures in sikkim/AP							10.000	5.000
5	Upgradation/Modernisation of nurseries			25.000	25.000	25.000	25.000		
6	Production of nucleus planting material of Betelvine in Bundelkhand region of Uttar Pradesh					11.250	11.250	15.600	15.600
II	Accreditation of spice nurseries	LS		7.000	0.660	2.000		3.000	0.046
III	Technology Dissemination through Frontline Demonstration								
a.	Organic Farming								
i.	Establishment of demonstration plots in spices	Nos		50.000	50.000	43.000	43.000	25.000	25.000
ii.	Maintenance of demonstration plots in Pepper	Nos	0.2	5.100	5.100	3.250	3.250	10.000	10.000
b.	Multispecies cropping in arecanut gardens.(Nutmeg)	Nos	0.25	12.240	12.240	10.930	10.930	3.390	3.390
c.	Demonstration plots in seed spices	Nos	0.2	41.200	41.200	34.000	34.000	25.600	25.600
d.	Demonstration plots in Aromatic Plants	Nos	0.375	10.400	10.400	42.400	42.400	36.800	36.800
e.	On farm management by micro irrigation	Nos	LS			27.750	27.750	19.650	19.650
f.	Demo of EPN in Arecanut rootgrub management	Nos	LS	6.440	6.440	6.440	6.440	4.740	4.740
g.	Multispecies cropping in arecanut gardens.(cocoa)	Nos	LS					2.550	2.550
h.	HDP of grafted Bush pepper under shade net structure	Nos		1.200	1.200	5.200	5.200		
i.	Participatory Demonstration Plots of Cinnamon intercropping in coconut	Nos		3.815	3.815	3.765	3.765		

j.	Demonstration of Arecanut Dwarf Hybrids	Nos		4.000	4.000	2.950	2.950	1.750	1.750
k	Demonstration of Fruit rot disease management in areanut using mandipropamid fungicide					3.990	3.990	3.990	3.990
l.	Estt of demo plots of Chilli							7.500	7.500
m.	Participatory Demonstration Plots of Cinnamon intercropping in coconut							30.000	30.000
n.	Demonstration of integrated mgt of inflorescence dieback disease in Arecanut							4.250	4.250
o.	Demonstration of disease free ginger seed production using microrhizomes and IDM at multiple locations							8.240	8.240
IV	Skill Devp trainings	Nos		32.840	32.840	12.315	12.315	12.315	12.315
V	Innovative Programme								
a.	Hi tech prod system for quality disease free seed rhizomes of Turmeric and Ginger	LS		6.000	6.000	6.000	6.000	5.000	5.000
b.	Participatory mode rehabilitation of black pepper gardens in Kuttiyatoorpanchayath	LS		8.290	8.290				
c.	Varietal Authenticity and Purity Identification in Black pepper	LS		5.100	5.100				
d.	Scaling up of microrhizome technology based ginger seed production	LS				32.000	32.000	21.550	21.550
e.	Establishment of essential Oil Distillation Unit	LS				15.000	15.000	7.000	7.000
VI	Transfer of Technology programmes	Nos							
a.	National Seminar			5.000	5.000				
d.	State Level Seminar	Nos	3	9.000	9.000				
c.	District level Seminar		2	24.000	24.000	10.000	10.000	2.000	2.000
d.	Farmer's Training Programme	Nos	0.75	82.500	81.750	42.750	42.750	45.750	45.750
VII	Monitoring	LS		3.000		5.000		4.000	0.048
VIII	Mission Management	LS		48.958	44.677	57.142	49.422	57.468	49.998
	Total			1084.65	1068.74	1200.00	1184.04	1200.00	1178.94

List of Identified Crops and Clusters

S. No.	Crop	Identified cluster	State
1	Apple	1. Shopian 2. Kinnaur	Jammu & Kashmir Himachal Pradesh
2	Mango	1. Lucknow 2. Kutch 3. Mahbubnagar	Uttar Pradesh Gujarat Telangana
3	Banana	1. Anantpur 2. Theni	Andhra Pradesh Tamil Nadu
4	Grapes	1. Nasik	Maharashtra
5	Pineapple	1. Siphahijala	Tripura
6	Pomegranate	1. Solapur 2. Chitradurga	Maharashtra Karnataka
7	Turmeric	1. West Jaintia Hills	Meghalaya

State-wise details of CoEs

S. No.	State	Name of Centre	Status
A.	CoE under Indo-Israel Cooperation		
1.	Andhra Pradesh	i. CoE for flower and vegetables at Kuppam	Completed
2.	Assam	ii. Centre of Excellence for Vegetables (Protected Cultivation)	Under progress
3.	Bihar	iii. Centre of Excellence for Mango & Lichi, Vaishali	Completed
		iv. Centre of Excellence for Vegetable at Chandī, Nalanda	Completed
4.	Gujarat	v. CoE for Vegetables at Sabarkantha	Completed
		vi. CoE for PHM for Date Palm at Kutch	Completed
		vii. CoE for Kesar Mango at Junagadh	Completed
5.	Haryana	viii. CoE for fruits at Mangiana, Sirsa	Completed
		ix. CoE for Vegetables at Gharaundha, Karnal	Completed
		x. CoE for Sub-tropical Fruits, Ladwa, Kurukshetra	Completed
		xi. CoE for Integrated Bee-Keeping Development Centre at Kurukshetra	Completed
		xii. CoE for flower cultivation and seed production at Sondhi, Jhajjar	Under progress
		xiii. Centre of Excellence for Semi-Arid Horticulture, Gignow (Bhiwani), Haryana	Under progress
6.	Himachal Pradesh	xiv. Centre of Excellence for Citrus and Pomegranate at Sidhpur and Jharera, Distt. Mandi	Under progress
7.	Karnataka	xv. CoE for Mango at Kolar	Completed
		xvi. CoE for Pomegranate at Bagalkot	Completed
		xvii. CoE for Vegetables at Dharwad	Completed
8.	Madhya Pradesh	xviii. CoE for Vegetables at Nurabad, Distt. Morena, MP	Under progress
		xix. CoE for Citrus at Kuddam, Chhindwara, MP	Under progress
9.	Maharashtra	xx. CoE for Mango at Dr. B. S. KonkankrishiVidyapeeth, Dapoli, Dist. Ratnagiri.	Completed
		xxi. CoE for Citrus at Horticulture Section, College of Agriculture, Akola, Nagpur	Completed
		xxii. CoE for Pomegranate at Mahatma PhuleKrishiVidyapeeth, Rahuri, Dist., Ahmednagar	Completed
		xxiii. CoE for Keshar Mango at Fruit Research Station, HimayatBagh, Aurangabad	Completed
10.	Mizoram	xxiv. CoE for Fruits at Lunglei, Mizoram	Completed
11.	Punjab	xxv. CoE for Vegetables at Kartarpur	Completed
		xxvi. CoE for Fruits (Citrus) at Khanaura, Distt. Hoshiyarpur	Completed
		xxvii. CoE for Treatment of Brackish water at Bathinda	Completed
12.	Rajasthan	xxviii. CoE for Citrus (Kinnow & Mandarin) at Progeny Orchard, Nanta, Kota	Completed
		xxix. CoE for Pomegranate at Rajhans Nursery, Dhindol, (Bassi), Jaipur	Completed
		xxx. CoE for Date Palm at Date Palm Farm, Sagra-Bhojka, Jaisalmer	Completed
13.	Tamil Nadu	xxxi. CoE for flowers at Krishnagiri	Completed
		xxxii. CoE for vegetables at Dindigul	Completed

S. No.	State	Name of Centre	Status
14.	Telangana	xxxiii. CoE for Flower and Vegetables at Ranga Reddy (with technical assistance from CoE, Gharounda)	Completed
15.	Uttar Pradesh	xxxiv. CoE for Fruits at Basti	Completed
		xxxv. CoE for vegetables at Kannauj	Completed
		xxxvi. Centre of Excellence for Vegetables at RajkiyeSantiUdyan, Madhopur, TahsilSaka;diha District Chandauli in Varanasi	Under progress
		xxxvii. Centre of Excellence for Fruits at government Seed Production Farm, Kokhraj, Kaushambi	Under progress

B.	CoE under Indo-Dutch Action Plan		
16.	Jammu & Kashmir	xxxviii. CoE for Temperate Fruits at Zawoora, Srinagar	Under progress
		xxxix. CoE for Tropical Fruits at Jammu	Under progress
17.	Kerala	xl. Centre of Excellence for Vegetables at Regional Agriculture Research Station, Ambalavayal, Wayanad	Under progress
18.	Maharashtra	xli. CoE for Vegetables at Baramati	Completed
		xlii. CoE for Flowers at Talegaon	Completed
19.	Punjab	xliii. CoE for Potato at Jalandhar	Under progress
		xliv. CoE for Flowers at Ludhiana	Under progress

Annexure 4.

Funds released under various field oriented Schemes of CDB during last 8 years (Planting Material Production, Area Expansion, Integrated Farming, Replanting & Rejuvenation and Coconut Palm Insurance)

S. No.	State	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (Provisional)	Total (from 2014-15 to 2021-22)
1	Kerala	5700.91	5180.97	1205.24	2458.87	1886.06	846.56	224.40	401.42	17904.43
2	Karnataka	494.9	1247.82	1514.11	3713.30	3629.66	1457.23	1015.37	1345.09	14417.48
3	Tamilnadu	682.68	1363.77	3263.84	2904.84	3865.34	1528.78	1936.30	1529.06	17074.61
4	Andhra Pradesh	1000.16	1380.94	1007.65	1871.04	2793.78	2374.90	1428.81	1227.37	13084.65
5	Telangana			1.75	1.32	14.09	13.42	1.32	4.58	36.48
6	Odisha	82.49	126.46	104.64	275.50	87.51	1333.14	27.88	86.40	2124.02
7	Maharashtra	116.79	93.94	94.4	66.90	66.34	58.09	30.33	52.61	579.40
8	West Bengal	43.15	166.84	426.09	724.83	357.84	83.76	16.71	28.30	1847.52
9	Goa	13.97	2.42	1.32	65.47	10.84	55.26	3.39	11.12	163.79
10	Gujarat	11.71	50.55	60.09	207.37	106.87	22.68	48.22	36.19	543.68
11	A & N Islands	38.89	38.54	35.8	38.19	187.33	40.65	2.06	0.33	381.79
12	Bihar	23.53	62.84	27	12.38	1.38	28.17	15.78	24.71	195.79
13	Puducherry	4.57	5.64	6.45	39.28	36.64	23.12	34.61	25.20	175.51
14	Lakshadweep	0.71		19.65	252.23	4.80	47.95	23.98		349.32
15	Chhattisgarh	35.72	68.16	60.05	39.54	28.45	38.37	35.90	43.53	349.72
16	Assam	62.45	157.95	338.28	246.64	559.37	83.23	269.63	32.35	1749.90
17	Tripura	5.08	54.70	43.32	56.10	96.18	31.28	84.16	27.72	398.54
18	Nagaland	7.64	4.70	50.2	52.02	22.32	15.74	1.68	38.39	192.69
19	Arunachal Pradesh	4.82	6.00	48.2	51.08	39.17	1.61	35.13	15.26	201.27
20	Meghalaya	1.6	3.20	94.72	30.92	31.94	18.72	3.33	2.85	187.28
21	Mizoram	4.7	10.70	44.49	40.33	19.14	7.11	4.06	6.40	136.93
22	Manipur					7.86	0.40	5.28	10.40	23.94
	TOTAL	8336.47	10026.14	8447.29	13148.15	13852.91	8110.17	5248.33	4949.27	72118.73

Annexure-IX

State wise and Year wise details of Project sanctioned under the schemes of NHM & HMNEH

(Rs. in lakh)

States	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22	
	No.	Asst.	No.	Asst.	No.	Asst.	No.	Asst.	No.	Asst.	No.	Asst.	No.	Asst.	No.	Asst.
Andhra Pradesh	15	751.78	480	2972.86	439	3685.59	815	4188.41	1185	4841.34	652	4812.94	1167	5482.77	1069	5468.38
Bihar	88	264.87	84	102.17	73	50.56	556	1007.35	281	419.50	50	47.25	11	12.25	10	170.25
Chhattisgarh	982	2182.51	471	1174.43	381	889.25	1270	3197.58	1204	1238.93	1606	2718.13	1055	1375.20	299	1185.50
Goa	0	0.00	0	0.00	0	0.00	0	0.00	1	8.51	0	0.70	0	3.50	0	1.75
Gujarat	320	4676.91	434	8441.70	357	8438.90	145	8612.88	186	7488.57	329	3644.40	641	4600.34	583	2674.19
Haryana	148	1609.27	214	474.98	603	1989.96	454	2151.13	528	2158.00	432	879.68	460	1751.41	389	1161.49
Jharkhand	806	1086.25	612	1036.00	207	660.40	26	379.15	817	951.50	234	431.00	0	126.45	0	0.00
Karnataka	870	2252.62	1440	2930.82	1496	3275.86	1983	4326.18	3270	5893.96	3355	6188.55	5684	8317.54	3769	3947.50
Kerala	15	132.91	76	113.74	83	128.23	50	326.11	37	63.29	5	37.25	46	117.67	82	381.17
Madhya Pradesh	327	1512.07	478	2633.14	278	2227.08	101	4127.84	110	2438.38	176	445.86	0	390.85	127	454.00
Maharashtra	1266	3271.33	1141	2933.20	850	2363.57	658	3403.39	5588	6345.46	866	3815.66	92	678.26	786	1456.03
Odisha	2229	1113.88	1621	3712.22	2550	4144.61	2493	2200.05	1922	2451.64	1547	2234.81	884	2836.27	495	752.90
Puducherry	0	0.00	0	2.45	0	0.00	0	5.25	4	0.35	1	2.00	0	0.00	2	4.00
Punjab	46	722.70	143	779.88	125	1532.70	36	532.88	30	2739.08	26	437.83	128	894.03	59	943.21
Rajasthan	573	504.66	574	686.74	450	737.94	703	3493.00	1286	1590.64	875	1513.88	992	1398.55	1065	494.16
Tamilnadu	89	138.00	190	445.88	4964	1168.32	896	1566.56	1327	2049.90	1435	1867.77	5508	3694.89	3084	2193.10
Telangana	70	898.34	98	1472.49	149	969.16	121	1297.50	83	361.51	45	1150.30	41	1086.63	68	314.83
Uttar Pradesh	91	288.40	61	575.31	95	1675.68	48	1916.39	68	4304.46	151	5208.87	235	3313.22	248	980.60
West Bengal	6	12.00	123	107.63	52	227.16	98	610.31	9	322.90	54	363.01	198	375.99	54	313.16
Arunachal Pradesh	0	0.00	137	15.21	0	45.00	0	52.50	32	193.90	0	15.00	385	785.00	0	15.00
Assam	0	0.00	0	0.00	28	83.00	146	272.16	337	1045.00	418	1287.75	0	262.50	166	625.00
Himachal Pradesh	24	2085.47	19	134.50	154	328.75	35	1458.11	66	626.78	98	437.00	64	221.00	10	58.25
Jammu and Kashmir	0	0.00	279	2156.74	163	3494.84	240	344.79	258	499.50	0	0.00	0	0.00	47	171.33
Ladakh	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	412	620.51	222	295.00
Manipur	0	0.00	48	285.75	156	333.88	41	310.78	146	1184.25	109	853.25	108	702.00	95	660.00
Meghalaya	494	528.10	72	144.00	123	246.00	269	441.43	51	125.50	346	462.06	284	135.81	42	120.25
Mizoram	632	36.40	0	0.00	270	170.00	429	621.34	9	450.00	98	288.00	58	280.75	0	45.00
Nagaland	102	197.00	52	52.00	312	522.56	534	1243.50	307	366.25	787	855.73	564	1869.00	10	0.00
Sikkim	35	1.84	4	15.00	30	60.00	129	203.51	111	761.96	57	118.43	121	676.25	0	45.00
Tripura	7	14.00	0	0.00	3	93.00	3	91.04	0	30.00	1	87.50	10	16.50	2	9.60
Uttarakhand	108	113.71	74	173.55	0	7.50	62	100.00	1	12.05	166	1456.64	157	579.59	216	520.40

Source from MIDH website

Asst. = Assistance

Annexure-X

Component-wise and Year-wise projects sanctioned under MIDH scheme during 2014-15 to 2021-22

(Rs. In lakh)

S. No.	Components	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		Total	
		P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F
1	Cold Storage	189	28055.36	273	46581.02	193	34578.66	235	44170.73	177	23669.06	51	9756.83	38	8175.10	57	7059.91	1213	202046.66
2	Pack house	2751	5069.88	4353	9233.34	3127	6002.76	2744	5168.32	3054	5376.53	2764	5025.25	6309	11405.42	3045	5388.39	28147	52669.89
3	Integraged Pack house	89	273.12	86	567.86	148	788.77	250	942.47	225	536.39	120	426.95	42	866.92	18	121.79	978	4524.27
4	Pre-Cooling Unit	8	82.09	20	98.39	12	65.27	7	66.18	18	172.98	15	179.22	12	114.55	5	48.13	97	826.81
5	Mobile pre cooling unit (5 MT)	21	158.30	16	138.80	14	130.00	6	60.00	1	8.75	1	8.75	0	0.00	1	67.50	60	572.10
6	Primary/ Mobile/ Minimal Processing Units	663	1623.64	453	1647.73	452	1256.87	445	2148.37	728	2008.50	474	2272.89	886	2936.44	319	1371.13	4420	15265.57
7	Refer Van	28	461.48	28	660.16	29	532.77	28	153.37	21	340.95	23	301.90	17	132.15	14	51.99	188	2634.77
8	Ripening Chamber	64	1382.57	87	1285.17	66	1667.63	169	921.85	51	810.92	45	901.98	2	53.10	21	260.81	505	7284.03
9	Evaporative / low energy cool chamber (8 MT)	289	638.49	254	594.02	136	330.27	295	687.50	134	207.50	4	10.00	129	322.50	14	35.00	1255	2825.28
10	Preservation Unit (Low Cost)	815	589.23	452	432.11	431	432.14	927	1409.50	1861	1728.51	1027	1026.68	858	872.00			6371	6490.17
11	Grading Packing Unit	56	723.87	42	457.31	62	657.34	67	695.79	14	157.98	5	42.56	14	118.46			260	2853.31
12	Low Cost onion storage structure (25 MT)	2706	1869.94	2139	1871.64	2762	2416.76	2972	2436.51	10325	8884.38	7145	6251.88	6120	5203.36	5426	8636.93	39595	37571.40
13	Pusa Zero energy cool chamber (100 kg)	2331	42.10	42	84.00	400	8.00	481	10.47	100	2.00	0	0.00	228	4.56	0	0.00	3582	151.13
14	Rural Markets/ Apni Mandis / Direct Markets	21	314.80	26	297.90	21	209.56	18	243.75	19	216.25	34	358.74	1	10.00	15	150.00	155	1801.00
15	Retail Markets / outlets	8	49.80	10	51.80	15	76.36	17	96.72	28	192.98	34	174.30	3	15.75	9	31.50	124	689.21

16	Static/ Mobile Vending cart/ Platform with cool chamber	119	15.05	337	32.56	988	119.63	1109	149.16	683	87.01	534	69.62	4442	664.37	2148	292.59	10360	1429.99
17	Functional Infrastructure Static/ Mobile Vending cart/ Collection, Sorting / Grading, Packing Units	62	368.22	53	313.13	53	302.66	54	310.96	31	175.14	28	167.05	103	603.09	89	514.37	473	2754.62
18	Quality Control / Analysis	0	0.00	0	0.00	4	33.00	2	208.25	1	200.00	2	16.50	10	82.50	0	0.00	19	540.25
19	Centre of Excellence	7	6125.00	4	2956.00	0	0.00	0	0.00	2	1679.10	3	2341.57	3	2377.73	4	1985.64	23	17465.04
	Total																	97825	360395.49

Source: MIDH Website & Information received from NHB

P – No. of Projects

F – Assistance Sanctioned by MIDH

Standing Committee on Agriculture, Animal Husbandry
and Food Processing (2021-22)

Minutes of the Seventeenth Sitting of the Committee

The Committee sat on Tuesday, the 28th June, 2022 from 1100 hrs. to 1317 hrs. in Committee Room No.3, Block-A, Extension to PHA, New Delhi.

Present

Shri P. C. Gaddigoudar – Chairperson

Members

Lok Sabha

2. Shri Afzal Ansari
3. Shri Devendra Singh 'Bhole'
4. Shri Kanakmal Katara
5. Shri Abu Taher Khan
6. Shri Devji Mansingram Patel
7. Smt. Shardaben Anilbhai Palel
8. Shri Bheemrao Baswanthrao Patil
9. Shri Rajiv Pratap Rudy
10. Shri Mohammad Sadique
11. Shri Ram Kripal Yadav

Rajya Sabha

12. Smt. Ramilaben Becharbhai Bara
13. Shri Kailash Soni
14. Shri Ram Nath Thakur
15. Shri Harnath Singh Yadav

Secretariat

1.	Shri Sundar Prasad Das	-	Director
2.	Shri Anil Kumar	-	Deputy Secretary
3.	Shri Prem Ranjan	-	Deputy Secretary

Witnesses

Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare

S. No.	Name	Designation
1.	Shri Manoj Ahuja	Secretary
2.	Dr. Abhilaksh Likhi	Additional Secretary
3.	Shri A.K. Singh	DDG (Horticulture)
4.	Shri Priya Ranjan	Joint Secretary
5.	Shri Upendra K. Vats	General Manager, APEDA
6.	Shri Prabhat Kumar	Hort. Commissioner
7.	Dr. Vijaya Lakshmi Nadendla	Chairperson, CDB
8.	Shri Joseph CF	Adviser (Hort. Statistics)
9.	Shri Jay Kiran	Adviser (Trade)
10.	Shri Brajesh Kumar Pandey	Pr. Scientist
11.	Dr. Naveen Kumar Patle	Director, Central Institute of Horticulture, Nagaland
12.	Shri Bhramar Jyoti Brahma	Deputy Managing Director, National Horticulture Board
13.	Shri Venkatesh N Hubballi	Director, Directorate of Cashew and Cocoa Development (DCCD), Kochi
14.	Dr. Femina	Director, Directorate of Arecanut and Spices Development (DASD), Calicut
15.	Shri R. Madhu	Secretary, Coconut Development Board (CDB), Kochi

2. At the outset, the Chairperson welcomed the Members of the Committee to the sitting convened for taking oral evidence of the representatives of the Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare) - in connection with the examination of the Subject, 'Mission for Integrated Development of Horticulture (MIDH) - An Appraisal'. Thereafter, the representatives of the Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare) were called in. After welcoming the representatives of the Department to the Sitting, the Chairperson apprised them of the provisions of Direction 55 of the Directions by the Speaker, Lok Sabha that mentions that the proceedings of a Committee shall be treated as confidential.

3. Thereafter, witnesses introduced themselves to the Committee. Secretary, Department of Agriculture and Farmers Welfare briefly apprised the Committee about the progress in the implementation of 'Mission for Integrated Development of Horticulture (MIDH)' in the Country. Thereafter, a Power-point Presentation was made about various aspects of Horticulture Sector of the Country and the achievements made under the MIDH. The Power-point Presentation covered the following points:

- (i) Horticulture production in India and growth of Horticulture Sector;
- (ii) Share of different commodity groups in Horticulture Production;
- (iii) Financial achievements under MIDH since 2014;
- (iv) India's Import & Export of principal Horticulture Commodities since 2014- 15;
- (v) Area and production of Horticulture Crops, state-wise;
- (vi) Initiatives made in the Horticulture Sector;
- (vii) Centres of Excellence for Strengthening of R&D and technology dissemination;
- (viii) Indo-Israel Villages of Excellence (IIVOE);
- (ix) Research, Demonstrations and Trainings at Precision Farming Development Centres (PFDCs);
- (x) Implementation of Horticulture Cluster Development Programme;
- (xi) One District and one Focus Produce (ODOFP) Programme;
- (xii) National Nursery Portal and Strategy for its promotion and upgradation ;
- (xiii) Success Stories of National Horticulture Board assisted Projects;
- (xiv) Coconut Development Board (CDB) ;
- (xv) Infrastructure development including Cold Chain - Capacity and gap ;
- (xvi) Special support to States under the MIDH from 2014-15 to 2021-22 ;
- (xvii) Clean Plant Programme of National Horticulture Board; and
- (xviii) Banana Case Study and Apple Case Study Projects.

4. Thereafter, the Chairperson and the Members of the Committee raised several issues/points, as briefly mentioned below and sought clarification from the Department:

- (i) Impact of decrease in budget allocation and low funds utilization under MIDH;
- (ii) Inability of States to contribute and release their share of funds for the implementation of the MIDH under the 60:40 funding pattern for the Scheme Components;

- (iii) Need for supporting development of Floriculture in the country;
- (iv) Integration of Krishi Vigyan Kendras (KVKs) and District Development Coordination and Monitoring Committee (DISHA) and Agriculture Extension Agencies for horticulture development;
- (v) Need for involving MPs in Horticulture Cluster Development Programme;
- (vi) Number of Nurseries in the country and the need for development of Nurseries, Planting Material and Mother Blocks all over the country;
- (vii) Non-availability of credit / loan facilities from banks for horticulture development activities;
- (viii) Slow progress in the implementation of the MIDH in the centrally administered Union territories like Andaman & Nicobar Islands, etc.;
- (ix) Implementation of the MIDH in the State of Bihar;
- (x) Measures taken for avoiding / reducing loss to farmers due to surplus production of perishable horticulture produces like tomato, potato, onion, etc.
- (xi) Need for expansion of area of cultivation of coconut in the States of Uttar Pradesh, Punjab, etc.;
- (xii) Need for sending farmers and MPs to foreign countries for training on advanced agricultural practices;
- (xiii) Awareness campaign for farmers regarding Market Linkages and availability of Ware-house & Cold Storage facilities;
- (xiv) Need for promoting horticulture in tribal areas and remote villages through market development and creation of cold storages;
- (xv) Stagnation in the productivity of fruits and vegetables;
- (xvi) Delay in subsidy payment to Horticulture Farmers;
- (xvii) Need for training of farmers on latest technologies in horticulture;
- (xviii) Need to ensure remunerative prices for fruits and vegetables;
- (xix) Need to develop procedure for setting up of Horticulture Clusters in the country;
- (xx) Need for fixing of targets in the implementation of the MIDH;
- (xxi) Data on Horticulture crops of the country and regulation of Nurseries to ensure quality of planting material supplied by the Nurseries;
- (xxii) Steps being taken to become 'Atmanirbhar' in Horticulture sector.

5. The representatives of Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare) responded to the queries. The Chairperson, then, thanked the witnesses for sharing valuable information to the Committee and directed them to furnish the information on the points/items, which were not readily available, to the Committee Secretariat by 8th July, 2022, positively.

6. The Committee decided to hold their next sitting on 12.07.2022 for briefing on the Subjects 'Role of National Dairy Development Board for Protection and Development of Indigenous Cattle Breeds' pertaining to the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying) and on the Subject 'Employment Generation and Revenue Earning Potential of Fisheries Sector' pertaining to the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries).

The Committee then adjourned.

[A copy of the verbatim proceedings of the Sitting has been kept.]

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**STANDING COMMITTEE ON AGRICULTURE, ANIMAL HUSBANDRY AND
FOOD PROCESSING BRANCH
(2022-23)**

MINUTES OF THE EIGHTEENTH SITTING OF THE COMMITTEE

The Committee sat on Thursday, the 03 August, 2023 from 1500 hrs. to 1530 hrs. in Committee Room '2', Block-A, First Floor, Extension to Parliament House Annexe, New Delhi.

PRESENT

Shri P.C. Gaddigoudar, Chairperson

MEMBERS

LOK SABHA

2. Shri A. Ganeshamurthi
3. Shri Kinjarapu Ram Mohan Naidu
4. Shri Shrinivas Dadasaheb Patil
5. Shri Mohammad Sadique
6. Shri Devendra Singh *alias* Bhole Singh
7. Shri Virendra Singh
8. Shri Ram Kripal Yadav

RAJYA SABHA

09. Smt. Ramilaben Becharbhai Bara
10. Shri Masthan Rao Beeda
11. Dr. Anil Sukhdeorao Bonde
12. Shri S. Kalyanasundaram
13. Shri Ram Nath Thakur
14. Shri Vaiko
15. Shri Harnath Singh Yadav

SECRETARIAT

1. Shri Shiv Kumar - Additional Secretary
2. Shri Uttam Chand Bharadwaj - Director
3. Shri Prem Ranjan - Deputy Secretary

2. At the outset, Chairperson welcomed the Members to the Sitting of the Committee. Thereafter, the Committee took up the Draft Report on the Subject "Mission for Integrated Development of Horticulture (MIDH) - An Appraisal" pertaining to the Ministry of Agriculture and Farmers Welfare (Department of Agriculture & Farmers Welfare) for consideration and adoption.

3. Thereafter, the Committee considered and adopted the Draft Report without any modifications. The Committee authorized the Chairperson to finalize and present the Report to the Parliament.

The Committee then adjourned.