

## ***CHAPTER-II***

### ***ECONOMIC SECTOR***



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### ECONOMIC SECTOR

#### 2.1 Introduction

The findings based on audit of the State Government departments/ offices under Economic Sector feature in this chapter. During 2019-20, against a total budget provision of ₹ 37,948.75 crore, 18 departments incurred an expenditure of ₹ 25,436.14 crore. **Table 2.1** gives Department-wise details of budget provision and expenditure incurred there against by 18 departments under Economic Sector during 2019-20.

**Table 2.1:-Department-wise details of budget provision and expenditure during 2019-20**

(₹ in crore)

Sl. No.	Department	Grant No. and Name	Budget provision		Expenditure	
			Revenue	Capital	Revenue	Capital
1.	Agriculture	48 – Agriculture	2,453.55	194.49	1,490.39	48.91
		67 – Horticulture	196.74	5.00	86.10	--
2.	Finance	10 – Other Fiscal Services	3.44	--	1.78	--
		5 – Sales Tax & other taxes	660.94	18.85	525.25	7.95
		13 – Treasury & Accounts Administration	134.66	25.75	88.38	3.07
		66 – Compensation and Assignment to LBs and PRIs	1,036.70	--	366.23	--
		7 – Stamps and Registration	352.33	--	32.64	--
		68 – Loans to Govt. Servant	--	100.00	--	--
		8 – Excise and prohibition	90.73	1.00	57.61	--
		Public Debt and Servicing of Debt	5,122.96	4,109.57	4,718.91	3,169.27
		Appropriation to the Contingency Fund	--	100.00	--	100.00
		3.	Fishery	54 – Fisheries	83.86	34.66
4.	Water Resources	63 – Water Resources	408.08	1,271.97	271.17	700.03
5.	Forest and Environment	55 – Forestry and Wild Life	1,062.61	21.60	450.92	5.51
6.	Handloom, Textiles and Sericulture	59 – Village, Small Industries, Sericulture and Weaving	395.84	15.23	254.06	8.74
7.	Industries and Commerce	58 – Industries	109.27	133.76	(-) 68.09	84.50
		60 – Cottage Industries	82.83	0.50	54.81	--
8.	Irrigation	49 – Irrigation	612.12	877.32	468.67	212.99
9.	Mines and Minerals	61 – Mines and Minerals	24.76	1.58	13.75	1.03
10.	Power	62 – Power (Electricity)	2,936.85	1,311.92	1,409.10	397.49
11.	Public Works Roads	64 – Roads Bridges	1,779.54	9,626.51	969.43	8,123.17
12.	Science and Technology	69 – Scientific Services and Research	29.49	6.15	25.21	3.52
13.	Soil Conservation	51 – Soil and Water Conservation	138.46	87.61	115.91	39.63
14.	Transport	9 – Transport Services	456.72	304.22	337.69	85.41
15.	Tourism	65- Tourism	119.08	164.99	93.09	10.79
16.	Animal Husbandry and veterinary	52 – Animal Husbandry	509.06	70.33	264.54	24.94
		53 – Dairy Development	30.68	1.50	21.85	0.75
17.	Information Technology	75 – Information Technology	85.09	1.00	29.07	--
18.	Public Works Building and National Highway	17 – Administrative and Functional Buildings	304.01	153.55	175.65	45.56
		21-Guest Houses, Government Hostels, etc.	79.29	--	25.16	--
		33 – Residential buildings	4.50	5.50	2.60	2.70
<b>Total</b>			<b>19,304.19</b>	<b>18,644.56</b>	<b>12,335.66</b>	<b>13,100.48</b>
<b>Grand Total (includes Charged):</b>			<b>37,948.75</b>		<b>25,436.14</b>	

Source: Appropriation Accounts 2019-20

### 2.1.1 Planning and conduct of Audit

During 2019-20, out of 426 auditable units under Economic Sector (excluding SPSUs), we audited 135 units<sup>16</sup> (including 11 certification audits) based on risk analysis involving an expenditure of ₹ 14,541.14 crore (including expenditure of earlier years). This Chapter contains one Performance Audit (PA) on ‘**Development and Promotion of Horticulture**’ and four Compliance Audit Paragraphs.

Major observations made in audit during the year 2019-20 are discussed in succeeding paragraphs.

## PERFORMANCE AUDIT

### Horticulture Department

### 2.2 Performance Audit on Development and Promotion of Horticulture

*Assam has gross cropped area of 36.37 lakh hectare of which horticultural crops cover an area of 8.15 lakh hectare (22.41 per cent). Government of Assam has spent ₹ 300.45 crore during the years 2015-20 for horticulture development in the State. Audit however, observed deficiencies in implementation of schemes with lack of proper planning. Targets in the Annual Action Plans were fixed without conducting field level survey for assessing the actual requirement. The Directorate was lacking the required input on the potentiality, weakness and critical areas of promotion and development of horticulture crops in the State. Deficiencies were noticed in utilisation of fund and release of funds was not as per the actual requirement. Audit also noted delayed issue of seeds/planting materials and instances of unproductive expenditure. Achievement shown in progress reports was not found based on actual field level data which were prepared on the basis of prescribed cost norms only. Required training and awareness programme were underachieved. The system of monitoring mechanism was found to be inadequate, and third party evaluation as required to be done was not done by the Department.*

#### **Highlights:**

***Perspective/ Strategic Plan was not prepared. Annual Action Plans lacked bottom-up approach as District Annual Plans were found not prepared for both Horticulture Mission for North-East & Himalayan States (HMNEH) and Rastriya Krishi Vikash Yojana (RKVY).***

*{Paragraphs 2.2.3.1.2 (i) and 2.2.3.1.2 (ii)}*

***Incorrect reporting of expenditure under HMNEH which resulted in inflated reporting of achievement. There were also instances of short release of fund under HMNEH by both GoI and GoA.***

*(Paragraphs 2.2.4.1 and 2.2.4.2)*

<sup>16</sup> High risk units: 69, medium risk units: 55 and low risk units: nil.

*There were instances of delay in supply of seeds/planting materials beyond planting season. There was short achievement of training and skill development.*

*(Paragraph 2.2.5.3 and 2.2.5.5)*

*The Department took up construction of three nurseries and two Centres of Excellence at a cost of ₹ 17.29 crore which remained idle. There was also unproductive expenditure of ₹ 1.12 crore towards procurement of planting materials for nurseries.*

*{Paragraphs 2.2.5.6.1, 2.2.5.6.2, 2.2.5.6.3 (i) & 2.2.5.6.3 (ii)}*

## **2.2.1 Overview**

### **2.2.1.1 Present Status and Potential**

Assam has a wide variety of climate and soils on which a large number of horticultural crops such as fruits, vegetables, spices, potato and other tropical tuber crops, mushroom, ornamental, medicinal and aromatic plants, plantation crops, cashew and betel vine are grown. Horticultural crops cover an area of 8.15 lakh Ha<sup>17</sup> out of Assam's gross cropped area of 36.37 lakh Ha.

Horticulture sectors perform a vital role in the economy by not only acting as source of additional income for farmers but also contribute in generating employment, providing raw material to various food processing industries, and higher farm profitability due to higher production and export value.

The area under horticulture crops increased from 5.33 lakh Ha during 2015-16 to 8.15 lakh Ha during 2019-20 and the production of horticulture crops increased from 75.77 lakh MT<sup>18</sup> to 99.08 lakh MT during the same period.

### **2.2.1.2 Development of Horticulture**

Government of Assam has spent ₹ 300.45 crore during 2015-20 on horticulture development<sup>19</sup> and two major Centrally Sponsored Schemes which contributed 81 *per cent* of government expenditure on horticulture have been selected for detailed scrutiny by Audit. They are briefly discussed below:

- (i) Horticultural Mission for North-East and Himalayan States (HMNEH): To achieve overall development of horticulture in North-East Region and Himalayan States, a Technology Mission for Integrated Development of Horticulture was launched in 2001-02 by Government of India. The scheme was renamed as Horticulture Mission for North-East and Himalayan States (HMNEH) during 2010-11. Subsequently in 2014-15, the Mission for Integrated Development of Horticulture (MIDH), a Centrally Sponsored Scheme was launched during XII Five Year Plan under Krishi Unnati Yojana for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices,

<sup>17</sup> Hectare

<sup>18</sup> Metric tonne

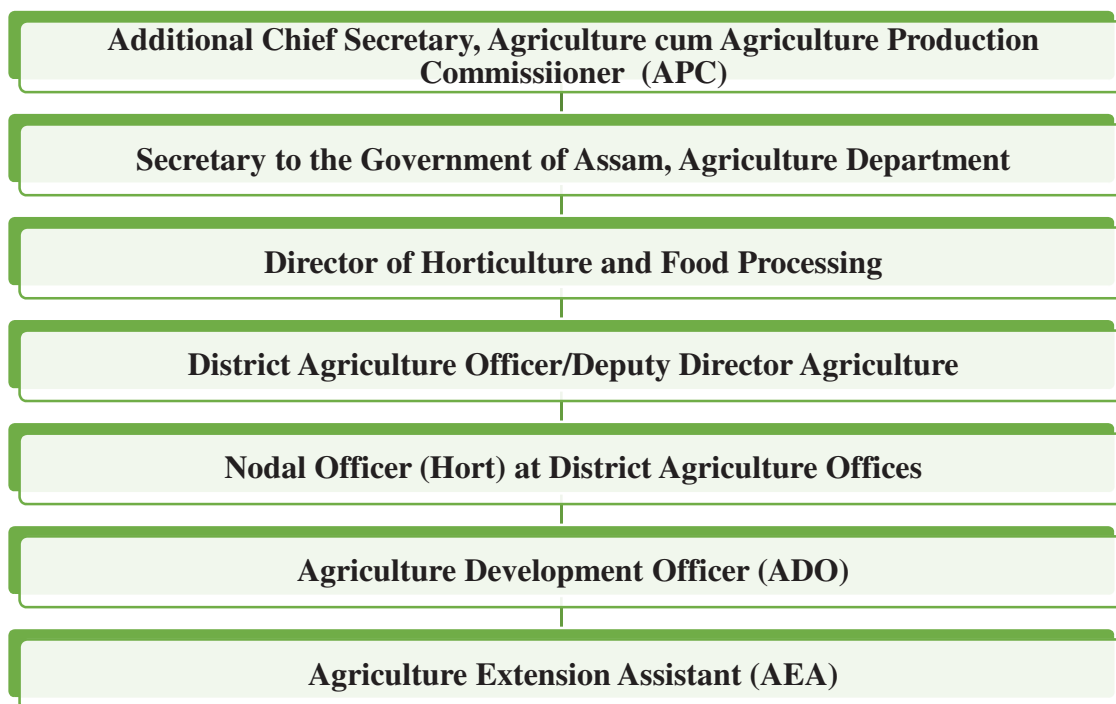
<sup>19</sup> Includes expenditure under Grant 67-Horticulture and Horticulture expenditure under RKVY for the period 2015-2020

flowers, aromatic plants, coconut, cashew, cocoa and bamboo. MIDH subsumed ongoing missions/schemes - National Horticulture Mission (NHM), Horticulture Mission for North-East & Himalayan States (HMNEH), National Horticulture Board (NHB), Coconut Development Board (CDB) and Central Institute for Horticulture (CIH), Nagaland.

- (ii) Rashtriya Krishi Vikas Yojana (RKVY): It is a central sector scheme launched in 2007 for the development of agriculture and allied sectors by Government of India. Development of horticulture is one of the key focus areas of this scheme.

### 2.2.1.3 Organisational Structure

Chart 2.1: Organisational Structure



### 2.2.2 Audit objectives, Criteria and Methodology

#### 2.2.2.1 Audit Objectives

The objectives of the Performance audit were to ascertain:

- i. Whether effective planning process was in place fixing priorities for State/ different districts/ regions in consonance with the diverse agro-climate features and whether various schemes/ projects for increase of production area and productivity of horticulture Crops were planned effectively?
- ii. Whether implementation of the schemes/ projects and provision and utilisation of funds was efficient and effective and has resulted in increased acreage of horticultural crops and diversification of horticultural production as envisaged?
- iii. Whether the promotion of technology, extension, post-harvest management, processing and marketing for holistic growth of horticulture sector was in consonance with comparative advantage each State/ region?

- iv. Whether the skills of the local youth have been developed to create employment opportunities in the horticulture sector?
- v. Whether monitoring and evaluation system including internal controls were adequate and effective?

#### 2.2.2.2 Audit Criteria

Audit findings were benchmarked against the criteria derived from the following sources:

- i. Operational Guidelines of MIDH and other relevant scheme/project guidelines.
- ii. Operation Guidelines of RKVY.
- iii. Annual Action Plans of HMNEH and RKVY.
- iv. Guidelines, Circulars, Notifications and various orders issued by the GoI/ State Government from time to time.
- v. Departmental Rules/ Policies, *etc.*, if any.
- vi. General Financial Rules/ Assam Financial Rules.
- vii. Packages of Practice of Horticulture Assam. Annual Administrative Report of Agriculture Department.
- viii. Statistical Handbook, Government of Assam and Economic Survey of Assam.

#### 2.2.2.3 Audit Methodology

The Performance Audit commenced with an Entry Conference (02 and 05 November 2020) with the Secretary, Agriculture Department, Government of Assam and other agencies involved wherein audit objectives, scope, audit criteria were discussed, and the inputs of the department were obtained.

Records relating to the implementation of Schemes were examined at Directorate and selected sample of six District Offices<sup>20</sup> for the years 2015-16 to 2019-20 during the period from November 2020 to April 2021.

The methodology adopted scrutiny of records, issue of questionnaires, audit observations and other evidence in the implementing Departments/Directorate and selected District Offices.

The Performance Audit Report was issued to the Principal Secretary cum Agriculture Production Commissioner, Secretary, Agriculture Department, and Director, Horticulture on 10 December 2021 for their comments. The findings of audit were also discussed in an exit meeting held on 19 January 2022 and the Department's views were incorporated wherever applicable.

#### 2.2.2.4 Sampling Methodology

Due to the prevailing Covid-19 conditions and restrictions in travel and stay, judgemental sampling plan was undertaken, selecting districts nearby Kamrup-Metro for audit. Six districts (18 *per cent*) out of 33 districts were selected which covered an expenditure of ₹ 87.96 crore under HMNEH (50 *per cent* of total HMNEH expenditure) and

<sup>20</sup> Kamrup Metro; Kamrup Rural; Morigaon; Nagaon; Nalbari and Sonitpur

₹ 51.39 crore under RKVY (76 per cent of RKVY expenditure) for the period from 2015-16 to 2019-20 as detailed in **Tables 2.2** and **2.3**:

**Table 2.2:-Details of total expenditure incurred by Directorate and expenditure covered in audit**

Total Districts	Selected Districts	Total Expenditure from HMNEH and RKVY	Expenditure covered in Audit
33	6	₹ 243.12 crore	₹ 139.35 crore

**Table 2.3:-Details of expenditure of sampled districts**

Sampled districts	HMNEH Expenditure (₹ in crore)	RKVY Expenditure (₹ in crore)
Morigaon	5.54	2.54
Nagaon	9.01	2.86
Kamrup Rural	10.00	2.23
Nalbari	3.49	1.74
Kamrup Metro <sup>21</sup>	55.24	39.11
Sonitpur	4.68	2.91
<b>Total</b>	<b>87.96</b>	<b>51.39</b>

In addition, beneficiary survey of farmers was also done to a limited extent due to pandemic situation. The beneficiary survey of farmers who received horticulture inputs under HMNEH & RKVY Schemes as per APRs submitted by the department were done in villages within the sampled districts subject to availability of the farmers.

#### **2.2.2.5 Audit Constraints**

In course of Performance Audit, 41 audit requisitions/queries/including reminders and 31 Preliminary observations Statement (POS) were issued to the Director of Horticulture and Food Processing (H&FP), Assam for obtaining records/information/clarifications in respect of important and critical areas. In response, although records were provided to the extent of availability and replies/records furnished against 08 requisitions and 03 POS, and partial replies in respect of 16 requisitions furnished, but replies/clarification along with records were not furnished for 17 audit requisitions/queries and 28 POS.

In absence of these records/ information/ clarifications, basis of preparation of Annual Action Plan, Progress Reports, area/ production/ productivity data could not be verified. The observations made in this report was limited to the extent of availability of records. Further, reasons for short release of fund, allocation of seeds/planting materials to the district and non-functional of COE/Government nurseries was commented to the availability of records.

#### **2.2.3 Audit Findings**

The important issues noticed during the course of audit are discussed in the succeeding paragraphs:

##### **2.2.3.1 Planning**

Proper planning is essential and necessary for successful implementation of any scheme. The observations in this regard are as follows:

<sup>21</sup> Expenditure includes ₹ 49.16 crore under HMNEH & ₹ 39.06 crore under RKVY incurred directly by the Directorate of Horticulture & FP, Assam



### 2.2.3.1.1 Non-preparation of perspective/strategy plan

The Operational Guidelines of HMNEH 2014, GoI envisaged that State Level Agency (*i.e.*, Directorate of Horticulture & Food Processing, Assam) shall prepare perspective/strategic plan and annual action Plan in consonance with scheme goals and objectives and in close co-ordination with a Technical Support Group (TSG), State Agriculture Universities, Central Agriculture Institutes and oversee its implementation. The plan should invariably contain information on geography and climate, potential of horticulture development, availability of land, Strength, Weakness, Opportunities and Challenges (SWOC) analysis, strategy for development and plan of action proposed to be taken to achieve goals in each district of the State focusing on crops having comparative advantage and natural potential for development in the State, adoption of cluster approach for production and linking with available infrastructure, or to be created, for post-harvest management, processing, marketing and export.

Perspective/strategic plan for the years 2014-15 to 2018-19 was not furnished to audit. It was also noticed that the Department did not constitute State TSG by engaging technical persons and experts to advice, formulate, appraise and to monitor the implementation of programme. As such, perspective/strategic plan, feasibility study and SWOC analysis remained unassessed in audit.

The Department (Joint Secretary to the Government of Assam, Agriculture Department) while accepting (February 2022) the audit observation stated that although, TSG was not constituted but expert advice was taken from Assam Agriculture University, ICAR, Industry & Commerce and IIFPT. The Department further stated that the Directorate is preparing a five-year vision document in consultation with the experts/scientists from line departments.

### 2.2.3.1.2 Preparation of Annual Action Plan

#### i. Planning in HMNEH

State is to prepare Annual Action Plan (AAP) as per the allocation communicated by Ministry of Agriculture, Government of India (GoI). A bottom-up planning approach was envisaged where District Agriculture Offices are to prepare district annual action plans keeping in view their priority and potential by conducting baseline survey and feasibility studies with the support of Directorate of Horticulture and submit to the Department within the allocated fund. The district-wise AAP are consolidated by Directorate of Horticulture and vetted/approved by the State Level Executive Committee (SLEC) and finally by GoI.

Annual Action Plan (AAP) is to be supported with data/outcome of past interventions like the details of area expansion, increase in productivity achieved, number of clusters created and water resource development, *etc.* The area expansion should be determined based on availability of planting materials and sub-plan on seed and planting materials shall be prepared separately as a part of AAP.

Audit observed that the Baseline survey was not conducted during 2015-16 to 2019-20. GoI approved an amount of ₹ 2.50 crore in the AAPs for 2018-19 and 2019-20 only for conducting baseline survey and strengthening of horticulture statistical database but the same was not done despite receipt of fund of ₹ 1.50 crore (2019-20 in December 2019) as evident from Progress Report. This resulted in non-assessment of potential and demand of horticulture development activities in Assam. Thus, various interventions under HMNEH were carried out in an unplanned manner.

The Department accepted (February 2022) the audit observation and stated that groundwork for baseline survey is under process. The Department further added that prior to preparation of AAPs, views/inputs were taken from different districts for incorporation in the AAP. However, neither the Department nor the sampled districts furnished any documentary evidence in support of reply.

**ii) Planning in RKVY**

RKVY guidelines stipulated preparation of district as well as State plans. The State would have a Comprehensive State Agricultural Plan by integrating the district plans. Further, RKVY guidelines envisaged that Detailed Project Reports (DPRs) shall have to be prepared incorporating feasibility study, competence of the implementing agencies and the potential benefits that will flow to the farmers/State.

Records showed that the DPRs for Horticulture were prepared at the Directorate level for the State, approved by the State Level Project Screening Committee (SLPSC) and forwarded to GoI for approval and release of funds.

In this regard, audit observed that the comprehensive District Horticulture Plans were not prepared and district wise allocation was made by the Directorate. Thus, bottom-up approach was not followed as mandated in RKVY guidelines and the State was not in a position to have correct information about the potential, weakness and critical areas for development of Horticulture crops.

The Department replied (February 2022) that views from different districts are taken and incorporated in the draft DPRs, however, did not furnish any documentary evidence in support of reply. In sampled districts, documents in support of the reply were not furnished.

**2.2.4 Financial Management**

Ministry of Agriculture, Cooperation and Farmer Welfare, GoI releases its share of fund to GoA based on the approved outlay in the AAPs. GoA, in turn, releases (Central and State share) funds to implementing agency/nodal department based on financial sanction accorded by the Agriculture Department and finally funds are transferred into the Bank account maintained for the purpose by the Director of Horticulture and Food Processing, Assam.

The fund sharing of both the Schemes (HMNEH & RKVY) was 90:10 (Central 90 per cent & State 10 per cent). During 2015-16, it was 50:50 between Central and State

only for RKVY. The status of fund during the years 2015-16 to 2019-20, under HMNEH and RKVY as reported by the Director of Horticulture is given in **Table 2.4**.

**Table 2.4:-Status of fund for the years 2015-16 to 2019-20**

(₹ in crore)

Year	Approved outlay for Annual Action Plan including Spill over/unspent amount			Reported by the Director, H&FP			Expenditure	Percentage of Central Share released by GoI	Percentage of State Share released by GoA
	Central Share	State Share	Total	Central Share	State Share	Total			
2015-16	54.90	6.10	61.00	20.00	-	20.00	20.00	36	0
2016-17	34.25	3.80	38.05	22.00	1.33	23.33	13.16	64	35
2017-18	36.41	4.04	40.45	22.90	1.26	24.16	19.77	63	31
2018-19	84.00	9.33	93.33	56.00	3.00	59.00	46.58	67	32
2019-20	113.86	12.65	126.51	79.16	7.90	87.06	75.60	70	62
<b>Total HMNEH</b>	<b>323.42</b>	<b>35.92</b>	<b>359.34</b>	<b>200.06</b>	<b>13.49</b>	<b>213.55</b>	<b>175.11</b>		
2015-16	31.10	31.10	62.20	21.55	-	21.55	21.35	69	0
2016-17	54.88	6.10	60.98	19.54	2.17	21.71	20.21	36	36
2017-18	53.86	5.98	59.84	15.86	1.76	17.62	15.63	29	29
2018-19	4.34	0.48	4.82	3.44	0.38	3.82	2.22	79	79
2019-20	26.85	2.98	29.83	9.00	1.00	10.00	8.60	34	34
<b>Total RKVY</b>	<b>171.03</b>	<b>46.64</b>	<b>217.67</b>	<b>69.39</b>	<b>5.31</b>	<b>74.70</b>	<b>68.01</b>		

Source: Information furnished by the Directorate.

#### 2.2.4.1 Incorrect reporting of expenditure under HMNEH

Audit further noted that funds drawn from the treasury was being shown as expenditure in the progress reports depicting expenditure under HMNEH. This led to reporting of expenditure of ₹ 175.11 crore in the progress report, while the actual expenditure as per the cash book and bank statement was ₹ 115.26 crore. The balance amount was lying in bank account of the Director of Horticulture & FP, Assam maintained with Axis Bank.

The Director stated (January 2022) that progress reports are prepared AAP wise irrespective of the year of receipt and expenditure. Thus, the figures exhibited in the original books of accounts *viz.*, Cash Book and Bank Statement differs with the progress reports.

##### 2.2.4.1.1 Incorrect reporting of achievement under HMNEH

Operational Guidelines of HMNEH 2014, GoI stipulated that monthly progress reports should be posted on the website of GoI by 5<sup>th</sup> of every month following the month by both District and State. Further, as per the instruction contained in the approval letter, certified hard copy of the monthly progress reports should also to be furnished to GoI by 10<sup>th</sup> of every month following the month. Progress reports depict the monthly physical and financial progress made.

Audit observed that during the period from 2015-16 to 2019-20, there was overstatement of achievement in the components as detailed in **Table 2.5**.

Table 2.5:-Activity-wise achievement status during 2015-20

Name of activity	Achievement reported		Achievement as per records <sup>22</sup>	
	Physical (Nos)	Financial (₹ in crore)	Physical (Nos)	Financial (₹ in crore)
Creation of marketing facilities	62	4.28	24	1.16
Farmer Producer Organisations	20	1.63	0	0.15
Honey Bee Colony and Bee-Hive boxes	13,200	2.12	9,360	2.09
IPHM	778	30.54	97	9.66
Mechanisation (power tiller)	2,530	18.99	1,111	8.33
Mushroom	49	3.28	23	0.73
Small nursery	79	6.19	26	1.43
<b>Total</b>	<b>16,718</b>	<b>67.03</b>	<b>10,641</b>	<b>23.55</b>

Source: Departmental records

The above table indicates that reported physical achievement was overstated by 57 per cent by the Directorate inflating achievements to show utilisation of fund released by GoA without actual utilisation.

The Director replied (January 2022) that the reporting of progress/ achievement as well as expenditure was as per AAP year-wise instead of financial year-wise as worked out by audit. However, the Director did not maintain/furnish the monthly data to analyse the discrepancy of reporting between financial year and AAP year in support of the reply, as stated by Principal Secretary during the Exit Meeting. Therefore, the fact remains that Director did not prepare monthly report as stipulated in the guidelines and reported incorrect figures of achievement to GoI.

#### 2.2.4.2 Short release of Central Share by GoI and State Share by GoA

- Under HMNEH, out of approved outlay of ₹ 359.34 crore, ₹ 213.55 crore was released to the Director. The release of Central share ranged between 36 to 70 per cent whereas release of State share ranged between zero to 62 per cent.
- Under RKVY, out of approved outlay of ₹ 217.67 crore, ₹ 74.70 crore was released to Director of Horticulture. The release of Central share ranged between 29 to 79 per cent whereas release of State share ranged between zero to 79 per cent.

From the aforesaid facts, it transpired that the funds were not released as per approved AAP due to delayed/non-submission of UCs.

The Department admitted the facts and stated (February 2022) that fund was not released as per allotment of approved AAP though proposals were submitted. The reply was not based on the facts stated above.

#### 2.2.5 Implementation of HMNEH and RKVY Schemes

The Director of Horticulture implemented HMNEH and RKVY schemes with a view to increase the area coverage and increase production and productivity of horticulture crops through interventions like providing seed, planting material and cash assistance for procuring horticultural equipment and building infrastructure which are detailed in succeeding paragraphs. Taking the base year as 2014-15, the impact with reference to

<sup>22</sup> Audit considered the subsidy payment records.

area sown and production of horticulture crops during the period covered under audit (2015-16 to 2019-20) was as under:

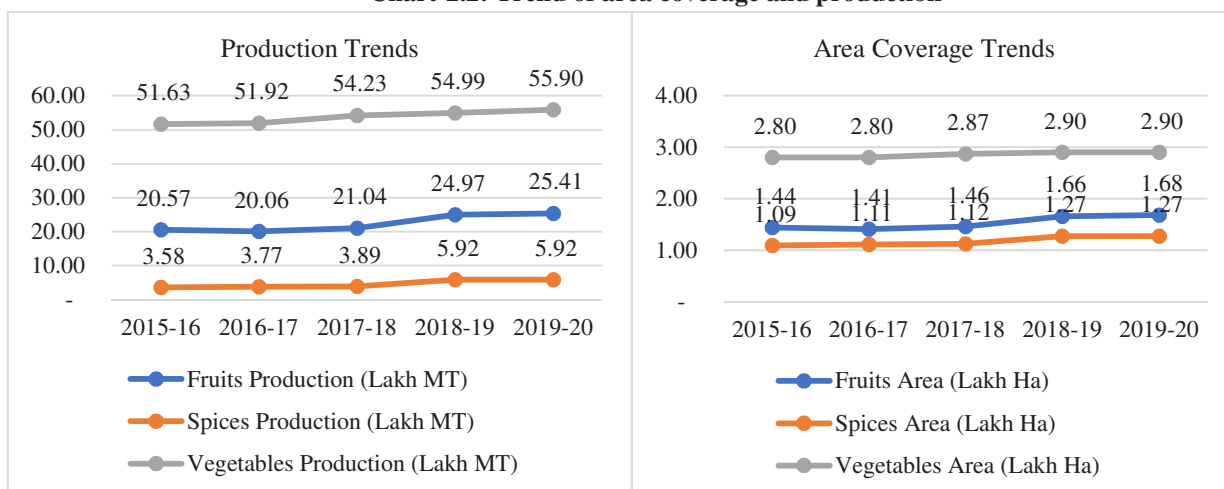
**Table 2.6:-Status of area and production of Horticulture crops**

(Area in lakh Ha and Production in lakh MT)

Year	Fruits		Spices		Vegetables	
	Area	Production	Area	Production	Area	Production
2014-15	1.44	20.12	1.08	2.98	2.78	50.12
2015-16	1.44	20.57	1.09	3.58	2.80	51.63
2016-17	1.41	20.06	1.11	3.77	2.80	51.92
2017-18	1.46	21.04	1.12	3.89	2.87	54.23
2018-19	1.66	24.97	1.27	5.92	2.90	54.99
2019-20	1.68	25.41	1.27	5.92	2.90	55.90

Source: Departmental figures

**Chart-2.2: Trend of area coverage and production**



It can be observed from the charts above that there has been only a little increase in area coverage and production year on year during 2015-20.

While the above charts present the overall horticulture scenario in Assam, the Horticulture activities carried out under HMNEH and RKVY Schemes during 2015-2020 are discussed in succeeding paragraphs.

### 2.2.5.1 Activities and expenditure under HMNEH

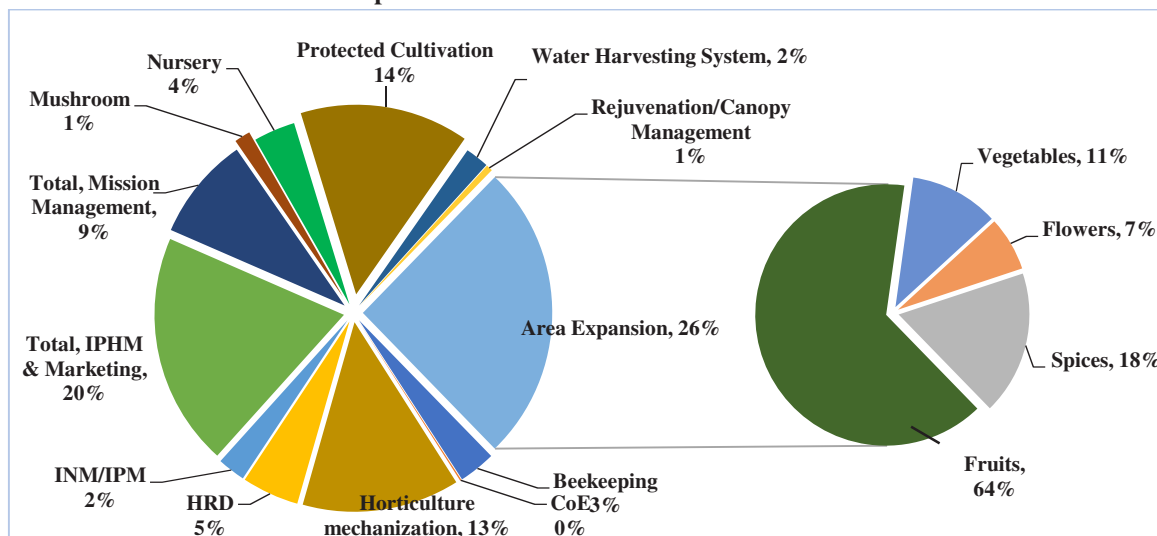
The Horticulture activities under HMNEH was carried out through components like Area expansion, Nursery development, INM & IPM<sup>23</sup>, IPHM<sup>24</sup> & Marketing, Protected cultivation, Mushroom cultivation, Mechanisation, Water Harvesting, Pollination through Bee keeping, developing Centres of Excellence (CoE) for horticulture, Human Resource Development (HRD), and Mission Management.

As per Progress Reports, an amount of ₹ 175.11 crore was spent during the years 2015-20 against different components. The component-wise expenditure was as under:

<sup>23</sup> Integrated Nutrient Management (INM) & Integrated Pest Management (IPM)

<sup>24</sup> Integrated Post Harvest Management (IPHM)

Chart-2.3: Expenditure Distribution for HMNEH 2015-16 to 2019-20



The major expenditure (26 per cent) was under Area Expansion followed by IPHM & Marketing (20 per cent), Protected cultivation (14 per cent), Mechanisation (13 per cent), Mission Management (nine per cent), HRD (five per cent), Nursery (four per cent), Pollination through Bee keeping (three per cent), INM/IPM (two per cent), Water Harvesting (two per cent), Rejuvenation/canopy management (one per cent) and Mushroom (one per cent). The area expansion contained the sub-component for area coverage of Fruits (64 per cent), Spices (18 per cent), Vegetables (11 per cent) and Flowers (seven per cent).

#### 2.2.5.1.1 Area coverage under HMNEH

Operational Guidelines of HMNEH 2014, GoI stipulated that monthly progress reports should be posted on the website of GoI by 5<sup>th</sup> of every month following the month by both District and State. Further, as per the instructions, the certified hard copy of the monthly progress reports should also to be furnished to GoI by 10<sup>th</sup> of every month following the month. Progress reports depicts the monthly physical and financial progress made.

Records revealed that the monthly progress reports were not found prepared at both District and State level. The Directorate furnished yearly physical and financial progress reports mentioning the targets and annual achievement of the activities undertaken during the year. In order to assess the achievement, audit asked for the basic records of preparation of achievement which were not furnished.

Area coverage was done by way of issue of seeds and planting materials to the beneficiaries by the Directorate of H&FP through the District Agriculture Offices. Other crop inputs like fertilisers and labour cost, *etc.*, were to be borne by the beneficiaries.

The target and achievement as per the Progress Reports in terms of area coverage in respect of four Horticulture Components under HMNEH was as follows:



Table 2.7:-Target and achievement as per Progress Reports

(Area in Ha)

Year	Flowers		Fruits		Spices		Vegetables	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
2015-16	5	4.55	4,357	778	1,000	540	505	495
2016-17	103	103	2,082	1,475	640	490	253	253
2017-18	122	50	2,488	1,142	790	725	126	126
2018-19	257	257	1,828	800	850	486	918	518
2019-20	210	200	2,470	2,120	2,150	2,150	710	710
<b>Total</b>	<b>697</b>	<b>614.55</b>	<b>13,225</b>	<b>6,315</b>	<b>5,430</b>	<b>4,391</b>	<b>2,512</b>	<b>2102</b>

Source: Departmental records

It can be seen from the table above that the planned targets were not fully achieved under all four components. Audit observed that crop-wise estimation was not carried out by the Directorate in reporting the achievement of planned targets and also did not provide any other basis of assessing the achievement. Though the achievement in respect of area coverage for Fruits during 2016-17 was more than that of 2015-16 under HMNEH but the achievement was found decreased in 2016-17 for the State.

In absence of basic records, audit calculated area coverage on the basis of yardsticks given in Package of Practices (PoP) of Horticulture crops of the Department. In the selected districts, audit assessed the area coverage figures taking the yardsticks in the PoP, based on receipt of seeds/planting materials by the districts, as detailed in **Table 2.8**.

Table 2.8:-Area Coverage as reported and as per PoP in the selected districts.

(Area in Ha)

District	Flower		Fruit		Spice		Vegetable	
	Area coverage reported	Area coverage as per PoP	Area coverage reported	Area coverage as per PoP	Area coverage reported	Area coverage as per PoP	Area coverage reported	Area coverage as per PoP
Kamrup (Rural & Metro)	171	49	556	314	171	230	108	88
Morigaon	20	3	266	79	120	167	92	44
Nalbari	70	10	135	127	115	115	79	70
Nagaon	39	5	695	531	248	166	128	79
Sonitpur	50	7	492	471	224	283	136	65
<b>Total</b>	<b>351</b>	<b>73</b>	<b>2144</b>	<b>1522</b>	<b>878</b>	<b>961</b>	<b>542</b>	<b>347</b>
<b>Percentage as per PoP against reported by Director, H&amp;FP</b>	<b>21</b>		<b>71</b>		<b>109</b>		<b>64</b>	

Audit noticed that reported inconsistency in area coverage of horticulture crops was reporting of achievement uniformly as per cost norms against the funds released to the Directorate. The Directorate while reporting of achievement did not look at the quantity of seeds/ planting materials supplied, only adopted the cost norms against the fund received by them.

The Department while accepting (February 2022) the audit observation stated that progress/ achievement were reported as per cost norms as laid down in the operational

guidelines. The reply of the Department was not based on facts as the achievement should have been on actual area covered and not on cost norms which led to incorrect reporting.

There was irregular allocation, non-receipt/supply of allocated quantities to districts, fixing of targets without assessing the actual requirement of districts, as discussed in **Paragraph No. 2.2.5.3**.

### **2.2.5.2 Activities and expenditure under RKVY**

During the years 2015-20, an amount of ₹ 68.01 crore (as per Progress Reports) was spent. The major expenditure (76 per cent) was under the category of Production Growth of horticultural crops which included Vegetables (79 per cent), Spices (11 per cent) and Fruits (10 per cent). It was noticed that –

- In case of Hybrid vegetables, though the achievement was more than the target during 2016-17 and 2017-18, but it was only 55 per cent during 2019-20.
- Under the category of Spices, in addition to onion, “black pepper, ginger and turmeric” with a target area 600 Ha was also planned during 2016-17 which was not taken up. The reasons for not taking up the planned item was not found on records.
- In the case of Fruits, it was seen that strawberry seeds were supplied during 2015-17 and 2019-20. The area coverage was reported as 286 Ha against target of 631 Ha. Audit using the yardstick in PoP observed that only 13.72<sup>25</sup> Ha could have been covered.

The Department, while accepting the audit observation stated (February 2022) that strawberry was supplied based on cost norms and to cover the targeted area, remaining quantities have to be managed by farmers from their own resources. Thus, it transpired from reply that reporting of progress/achievement of area coverage was done presuming that the farmers procured the rest planting materials and not based on the coverage of actual area

### **2.2.5.3 Allocation of seeds/planting materials**

Audit observed that the requirement of crop variety-wise seeds/inputs was not found recorded in AAPs for 2015-20. Audit noticed that there were cases of short supply and delayed supply of seeds as illustrated below:

- Records (indents, challans, bills/vouchers) of the Directorate showed that there was short supply of nine seeds (Appleber, Assam Lemon, Banana, Black Pepper, Capsicum, Papaya, Ride Gourd, TC Banana and Tuberrose). As a result of short supply of crops against the allotment, area coverage was less ranging from two to 79 per cent calculated as per PoP of respective crops {**Appendix-2.1 (A) & (B)**}

<sup>25</sup> Total supply of 6,77,213 strawberry plants were made. The area coverage yardstick in PoP was 0.2025 sqm per plant i.e. 6,77,213 strawberry plants x 0.2025 sqm per plant = 1,37,135.63 sqm/10,000 = 13.72 Ha



- In 250 out of 985 cases, there was delay in supply of seeds/planting materials beyond the sowing season ranging between two to 170 days (*Appendix-2.2*). It was noticed in the 250 cases of delay-
  - in 15 cases, supplier delayed the supply though supply order was issued before the sowing season;
  - in 92 cases, the supply order was issued during the sowing season; and
  - in 143 cases, the supply order was issued post sowing season.
- In one of the selected districts due to supply made beyond sowing season, DAO Kamrup refused to receive seeds/planting materials worth ₹ 24.84 lakh (Capsicum-10.5 kg worth ₹ 9.23 lakh, Tuberose-14.83 lakh plants worth ₹ 13.50 lakh and Turmeric-85.50 quintal worth ₹ 2.01 lakh during 2017-18). The refused quantities were diverted to three districts (Baksa, Golaghat and Hojai).

Further, to assess the impact of delayed supply of planting materials in the selected districts, the reported data relating to area coverage, production and productivity was analysed for five crops with reference to the yardstick (yield rate) PoP and it was noticed that the average yield of crops were found less ranging between four to 96 *per cent* as detailed in **Table 2.9**.

**Table 2.9:-Comparison of yield of crops**

Name of the crop	Minimum yield as per PoP (quintal/hectare)	Average yield as per records furnished by DHFP (quintal/hectare)	Percentage of less yield
Potato	85.00	71.40	16.00
Onion	150.00	77.77	48.15
Turmeric	300.00	13.07	95.64
Ginger	150.00	95.35	36.43
Capsicum	70.00	67.43	03.67

Thus, it is indicative that delayed supply of planting materials can be one of the major reasons for drop-in yield rate besides depriving the farmers in producing better yielding crops and thereby better income.

The Department accepted (February 2022) the facts and stated that AAP was prepared based on sectoral allocation received from GoI and not as per requirement of district. The Director stated that supply of materials to farmers were delayed because of late release of fund and now initiative has been taken to avoid supply beyond planting season. The reported progress/achievement were based on cost norms fixed by GoI. Further, expressing the constraint to achieve as per package of practice, it was stated that the requirement is more which needed to be purchased by beneficiaries from their own source. The reply was not tenable as the Department had prepared PoP for Horticulture crops and the achievement should have been based on the parameters as spelt out in the PoP for the respective crops.

#### 2.2.5.4 Establishment of Nursery

As per HMNEH scheme guidelines, 50 per cent subsidy of project cost<sup>26</sup> will be provided for setting up new nurseries<sup>27</sup> (hi-tech nurseries and small) under the Public (Government) as well as Private Sector to meet the requirement of planting materials. Nurseries will be encouraged to get accreditation within 18 months of setting up through designated agencies like National Horticulture Board, Central and State institutions. Central Institute of Horticulture, Nagaland is the designated agency for accreditation in North-Eastern Region. Planting materials for HMNEH will be procured only from accredited nurseries as per the scheme guidelines.

**Private Small Nurseries** - During the period from 2016-17 to 2019-20, altogether 84 private and seven public nurseries were taken up with the financial target of ₹ 6.31 crore and ₹ 1.00 crore respectively. As per the annual progress reports, the achievement was shown as the establishment of 74 (private) and five (public) nurseries with the expenditure of ₹ 5.53 crore and ₹ 0.66 crore respectively. However, the payment records revealed that payment of ₹ 1.43 crore was made in respect of 26 private nurseries only (**Appendix-2.3**). In absence of the payment records of the remaining 53 nurseries, audit could not ascertain the veracity of the establishment as well as the expenditure incurred. As such, the claims made in the annual progress reports are doubtful as no payment were found made in respect of 53 remaining nurseries.

It was also noticed (March 2021) that four private nurseries and one public nursery was found accredited as on date of audit, but procurement of seeds/planting materials was not found made from these accredited nurseries.

In reply, the Department stated (February 2022) that 10 private nurseries have been accredited till January 2022. The Department, further, stated that procurement from private nurseries could not be done due to the procurement procedure of GoA. However, the Department did not provide any reply regarding mismatch between achievement of establishment of nurseries as per progress report and payment records.

#### 2.2.5.5 Training and skill development

RKVY and HMNEH schemes envisaged training including seminar, workshop, exposure visit, etc., to farmers, entrepreneurs, field level workers to be taken up at State Level and outside the State with a view to create skill development of farmers, unemployed youths for adoption of high yielding varieties of crops and farming system.

It was noticed that achievement during 2015-20 ranged between zero to 89 per cent and 2 to 18 per cent under HMNEH and RKVY respectively (**Appendix-2.4 (A) & (B)**).

<sup>26</sup> Maximum admissible project cost is ₹ 15,00,000

<sup>27</sup> Nursery is a unit for producing planting materials. Small Nursery is a nursery with an area of 1 ha with a provision for naturally ventilated green houses and net houses and will produce 25,000 plants of the mandated fruits/ plants/ tree spices/ plantation crop per year. There are also Hi-tech nurseries which will have an area of 1 to 4 ha with a capacity to produce 50,000 plants per ha of mandated fruits crops/ tree spices/ plantation crops, etc.

The Department accepted the audit observation and replied (February 2022) that targeted training could not be done due to Covid 19 and non-allotment of fund. The reply of the Department is factually incorrect as Covid 19 cannot be the reason for shortfall during 2015-20.

### 2.2.5.6 Idle and unproductive expenditure- ₹ 18.41 crore

#### 2.2.5.6.1 Model Floriculture Unit at Sarutari, Kamrup

##### (i) Idle expenditure of ₹ 1.33 crore due to non-functional infrastructure

SLSC approved (12 December 2013) establishment of floriculture units (public nursery) at Sarutari, Kamrup under HMNEH 2013-14 at a project cost of ₹ 200.00 lakh as proposed by the Directorate with the objective (i) to develop a plan to showcase the cut flowers with the facility for cultivation of Orchid, Gerbera and Anthurium; (ii) to demonstrate the cultivation practice of floriculture to farmers and to train 1,000 farmers *per year* and (iii) to get project return of ₹ 5.00 lakh *per annum* from sale of cut spike of flowers as well as kiekies<sup>28</sup>. The public nursery was completed in December 2015 at a cost of ₹ 1.44 crore (₹ 1.33 crore for civil works and ₹ 0.11 crore for computer and office stationeries) and was handed over by the contractor for running departmentally.

In March 2016, the nursery was partially damaged due to heavy rainfall and wind. The nursery, located at the hilltop could not withstand high velocity of wind and rainfall every year. No effort was found to have been made to repair the damages.

During joint site visit (March 2021), it was observed that all the six green houses were in a damaged condition. Grown weeds were found within all the green houses, no plantation was found within the green houses, there was no boundary wall/fencing, the iron gate at the entrance was found in a deplorable condition. The DG set covered with plastic sheet was found kept in an open space as the shed was damaged. The labour barrack was also found damaged and unfit for use. Furniture and computer were not found in the unit. The cold room was inaccessible and found dumped with various materials.



Fifth Green House in front of the office building and below the labour barrack was found in a dilapidated condition. No plantation was observed under the green house (12-03-2021)

<sup>28</sup> In horticulture, “Kiekie” is a plant produced asexually by an orchid plant, especially Dendrobium, orchids.

It was evident that the technical aspect was not looked into during site selection. The unfavourable site selection coupled with the inaction to make the unit operational during the last five years and lack of monitoring defeated the objective of creation of the unit and the expenditure of ₹ 1.33 crore did not yield the desired objectives.

**(ii) Unproductive expenditure of ₹ 1.12 crore in procurement of planting materials**

For procurement of planting materials for the model floriculture unit at Sarutari, the Director of Horticulture received (June 2015) willingness from approved firm (M/s Raja Enterprise) for supply of planting materials on buy-back agreement. In buy-back agreement, the agencies needed to supply planting materials at the approved quoted rate and subsequently buy back all the produce obtained from the supplied planting materials. The status of agreements entered, if any, was not found on records.

Records showed that planting materials worth ₹ 1.12 crore were procured in two phases (**Appendix-2.5**). In the 1<sup>st</sup> phase, seedlings of four varieties of orchids involving expenditure of ₹ 0.53 crore were procured in June and August 2015 which was before commencement (October 2015) of the construction of the green houses and in the 2<sup>nd</sup> phase, seedlings of two varieties of flowers involving expenditure of ₹ 0.59 crore were procured in December 2015 and March 2016 from the firm (M/s Asiatic Horticulture Farm) which did not agree to the terms of buy back. Further, as mentioned in aforesaid paragraph that the unit (public nurseries) was in operation till 2017-18 and it was noticed that during the period *w.e.f.*, 12 August 2016 to 01 November 2017, horticultural produce of 1,685 nos. valuing only ₹ 8,530 were found to have been sold to farmers outside the State (as stated during discussion) and not under buy-back agreement to the two selected firms.

In view of the above facts, it can be concluded that undue benefit was extended to the firms as the planting materials were procured from them but desired benefit of selling of produces on buy back was not carried out which defeated the objective of scheme even after incurring expenditure of ₹ 1.12 crore on planting materials.

The Department while accepting (February 2022) the audit observation stated that the unit is lying idle due to absence of permanent water source which indicated improper survey and planning before taking up of the project. The reply of the department was not tenable as provision of permanent water source should have been considered before taking up the project.

**2.2.5.6.2 Nurseries under RKVY – Idle expenditure of ₹ 5.89 crore**

The SLSC approved establishment of nurseries under RKVY 2012-13 *viz.*, “Central Horticulture Nursery” and “Model Horticulture Orchard with ‘V’ type Automated Nursery” at Ulubari and Byrnihat, Kamrup Metro with a cost of ₹ one crore and ₹ five crore respectively. However, due to non-availability of adequate land, the site of the 2<sup>nd</sup> nursery was changed to Ulubari. The objective of setting up of both the nurseries was to grow high-quality planting materials of horticulture crops having high-tech green house, modern farming technique to improve production and income of farmers. Both



the nurseries were constructed (March 2014) without consideration of various aspects viz., broad objective of the projects, infrastructural requirement and modalities of operation & maintenance.

The construction of both the nurseries was completed on 30 January 2015 and 30 June 2015 at cost of ₹ 4.89 crore and ₹ 1.00 crore respectively and these were handed over (February 2016) by the contractor to the Directorate after providing training to the designated Project Manager, who is an officer from the Directorate, for running the nurseries along with 14.99 lakh<sup>29</sup> seedling of various flowers and vegetables. Both the nurseries were to be operated departmentally. It was also seen that SLEC had recommended formation of technical committee for self-sustainability but records in support of implementation of the recommendation was not found in records.

During joint site visit (April 2021), it was seen that all the net houses were in dilapidated condition, weed and bush growth were found, plantation was not observed inside the units as well as net houses and the scion<sup>30</sup> and mother block was not traceable. Further, it was stated by the Directorate that these nurseries remained non-functional since January 2017 due to non-installation of separate electric connection, non-availability of inputs and non-availability of funds for recurring expenditure and maintenance.

Thus, due to lack of formulation of modalities of operation & maintenance and self sustainability the project failed to provide the desired benefits.



V-type Nursery net house with jungle weed in the hardening house (09-04-2021)



Central Horticulture Nursery net house without any plantation (09-04-2021)

29

Name of Crop	No. of seedlings	Name of Crop	No. of seedlings
Cauliflower	3,59,568	Chilly	29,106
Tomato	1,84,932	Capsicum	35,640
Cabbage	52,668	Tomato	56,628
Chilly	1,02,762	Bhendi	32,472
Capsicum	1,57,806	Ridge Guard	3,168
Brinjal, Chinese Cabbage, Bottle Guard, Pumpkin, Kirikhal, Red Cabbage, Parceli, Palak, Dhania	2,57,400	Bean	5,940
Cucumber & Papaya	13,464	Papaya	2,376
Broccoli	95,238	Cucumber	5,940
Flowers	9,576	Brinjal	5,940
Mix Others	87,912	<b>Total:</b>	<b>14,98,536</b>

<sup>30</sup> The scion is a young shoot, branch, or bud that is taken from one plant variety to be grafted onto the rootstock of another plant variety.

The Department accepted (February 2022) the audit point and stated that the units are lying idle due to lack of proper business plan, shortage of manpower and maintenance fund, however, attempt is being made for its' revival.

**2.2.5.6.3 Centre of Excellence – Idle expenditure of ₹ 9.98 crore**

Further, to augment the skill development of the farmers through training and demonstration of horticulture crops, two Centres of Excellence (COE) were set up.

HMNEH scheme guidelines envisaged establishment of Centre of Excellence (COE) for different horticulture crops which would serve as demonstration and training centres as well as source of planting material and vegetable seedlings under protected cultivation.

Establishment of two CsOE was proposed by GoA and GoI sanctioned at a cost of ₹ 5.00 crore each during 2012-14, where one COE was for citrus fruits and the other one was for off-season vegetables and high value flowers. The CsOE were in non-functional state as discussed in the succeeding paragraphs.

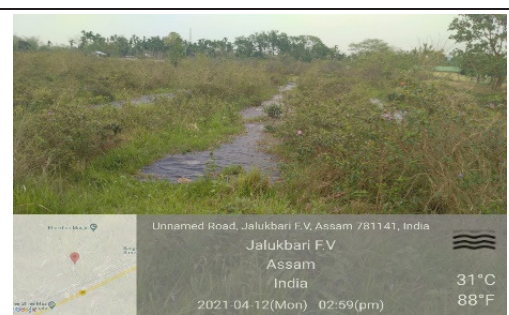
**i) Centre of Excellence for Citrus**

Under HMNEH 2013-14, establishment of COE for Citrus at Boko, Kamrup Rural was approved at ₹ 5.00 crore (₹ 3.58 crore for engineering works like civil works, tubular structure, electrification, transformer, *etc.* and ₹ 1.42 crore for non-engineering works like irrigation, fertigation, vehicle, power tiller, tractor, root stock, mother blocks, *etc.*) The COE was proposed to have six insect proof net houses for mother blocks and rootstock and an open orchard of 10 Ha and to provide high quality and disease-free quality planting materials, usage of precision farming techniques, post-harvest handling of citrus crops and training and capacity building of citrus growers, departmental personnel, nurserymen, *etc.* The said COE was to be run departmentally and was found inaugurated in August 2016.

During joint physical verification of the COE by audit (April 2021) with the departmental representative, it was seen that the open orchard was divided into two parts (one part containing citrus plants and the other part only had plastic mulching laid without plants). Though citrus plants were found in three insect proof net houses but the rest three were covered with bushes and shrubs. The presence of rootstock was also not noticed. The Director stated during the joint verification report that production could not be made due to lack of manpower and maintenance fund, and this resulted in COE being non-operational which led to idle expenditure of ₹ 5.00 crore.



Green house (stated for root stock) roof damaged and full of bushes (12-04-2021)



Plastic mulching in open field without plantation (12-04-2021)



The Department while accepting the audit observation stated (February 2022) that the unit was lying idle due to insufficient manpower and maintenance fund and work has been started for revival in a phased manner.

**ii) Centre of Excellence for off-season vegetables and high value flowers**

The CoE, designed to serve as a Technology Demonstration Centre for innovative techniques to foster cultivation of different horticultural crops including orchids and other high value flowers, offseason vegetables and commercial fruits crops with central focus on productivity enhancement and qualitative production was approved (27 February 2013) under HMNEH 2012-13 at ₹ 4.98 crore (₹ 1.70 crore for civil works and ₹ 3.28 crore for horticulture activities, tax, *etc.*) and was to be run departmentally. Northeastern Regional Agricultural Marketing Corporation Ltd. (NERAMAC), a Government of India Undertaking was entrusted (03 July 2013) to complete the work by 31 October 2013. NERAMAC completed the project on 15 February 2016 (which included construction of infrastructure and development of plants) and the COE was taken over by the department on 01 April 2016.

Joint site visit by audit (24 March 2021) with the departmental representatives disclosed that roof nets of all the nine green houses were in damaged condition. Only four green houses had flowers (Anthurium and cut flowers) and vegetables (papaya and tomatoes) and the rest five green houses were covered with weeds and bushes. The anthurium plants were in dried condition and it was difficult to distinguish the cut flower plants amid weeds and bushes.



Green house in damaged condition full of jungles and bushes. Shade net of roof and side wall also missing at places (24-03-2021)

As per status notes (March 2021), irrigation and fertigation system of COE were damaged (October 2017) by trespassing of wild elephants by breaking the boundary wall. A proposal of ₹ 19.54 lakh was prepared for revival/repairing of the destroyed systems. But the system could not be repaired to make the COE



Green House with 50 per cent dried Anthurium plants. Roof nets missing (24-03-2021)

functional as the COE was occupied as camp by CRPF personnel.

Audit also observed that the SLEC recommended to set up a Technical Team<sup>31</sup> for development of SOP and to prepare a well-defined calendar for smooth running of the COE (September 2016) and to constitute a Society for preparation of business plan for the COE to run them on self-sufficient basis (July 2018). The recommendations of the SLEC were not found implemented by the Directorate. Thus, the non-functioning of the CsOE led to idle expenditure of ₹ 9.98 crore (₹ 5.00 crore *plus* ₹ 4.98 crore).

The Director stated that the above nurseries and CsOE became non-functional for want of maintenance fund, manpower, *etc.* The reply indicates improper planning as source of maintenance fund as well as requirement of manpower were not considered during seeking approval of the above projects and also proposal for maintenance fund and manpower were not found included in the subsequent AAPs.

The Department while accepting the audit observation stated (February 2022) that proposal for revival was under process. The reply is not based on facts as the Department was supposed to make arrangement of funds for maintenance and provision for manpower at the time of sending the proposal for establishment of CsOE.

#### **2.2.5.7 Other components implemented under HMNEH**

- **Organic Farming** –It was noticed that in the 2<sup>nd</sup> SLEC meeting, proposal of organic farming and certification for 1,000 Ha in nine districts was approved. The identification of beneficiaries required to be approved by SLEC was found not done, which was one of the conditions for release of fund, and as a result, the same was not forwarded to GoI. Audit observed that GoA had not formulated any policy for Organic Farming in the State till date (April 2022) and the proposal for organic farming and certification as submitted to the SLEC, was not based on a well thought out strategy to promote organic farming in the State.

The Department accepted (February 2022) the audit point and stated that organic farming and certification of 1000 ha were not implemented due to the shortage of funds.

- **Inadmissible expenditure of ₹ 0.60 crore under Pollination through Bee Keeping**-During 2018-19, the bee hive boxes and colonies were provided in two phases. It was seen that in the 1st phase, 6,880 units were supplied at 40 *per cent* subsidy of total cost and the rest 60 *per cent* was paid by the beneficiaries. In the 2nd phase, 2,480 units were supplied with subsidy at 100 *per cent* of cost in contravention to the norms of 40 *per cent* subsidy. Due to payment of 100 *per cent* of total cost, the target of 13,200 units remained underachieved by 3,840 units, and there was consequent irregular expenditure of ₹ 59.52 lakh, on account of providing 100 *per cent* subsidy against admissible subsidy of 40 *per cent*.

<sup>31</sup> With the Chief Scientist, Horticulture Research Station, Kahikuchi; Chief Engineer (Agri), Assam, Principal Scientist (Hort) ICAR, Barapani, Representative from NABARD and Deputy Director of Agriculture (Horticulture).



The Department while accepting the audit observation stated (February 2022) that the implementation procedure was changed, and the farmers were asked to procure the rest 60 *per cent* bee colonies and boxes. However, this was in contrary to provisions as envisaged in the guidelines and no approval was found to have been taken from GoI for the deviations.

- **Lack of initiatives led to non-formation of 18 FPOs under RKVY-** Farmers Producer Organisations are an organisation of farmer-producers that provide support to small farmers with end-to-end services covering almost all aspects of cultivation from inputs, technical services to processing and marketing. HMNEH guidelines envisaged aggregation of farmers into farmer groups, promotion of FPO and their tie up with Market Aggregators, Financial Institutions to bring economy of scale and scope in horticulture sector. For this, the SLEC have to review the progress of formation of FPOs.

The pattern of assistance is through a Resource Institute (RI). The Director engaged the Associated Tea and Agro Management Service Pvt. Ltd, which was the only empaneled Agency of Assam as per the panel of RI under GoI. The RI helps in formation of FPO and in training the office bearers<sup>32</sup> of FPO for the first three years and gets reimbursed for the training imparted from the Directorate.

Under RKVY, the payment gets routed through Assam Small Farmers Agri Business Consortium (ASFAC)<sup>33</sup>. It was seen that 28 FPOs were approved during 2015-20. Records showed that the Director received ₹ 9.84 crore against approved amount of ₹ 10.56 crore for 28 FPOs and released ₹ 5.03 crore to ASFAC and an expenditure of ₹ 3.60 crore was incurred by the agency. RIs reports further showed that due to irregular/ delayed payment the 18 FPOs started during 2016-17 and 2017-18 remained non-functional. Even the CEOs and office bearers quit due to non-payment of honorarium.

Thus, due to irregular/delayed payment to RIs, the Department failed to ensure the successful formation and functioning of FPOs.

The Department accepted the audit observation and stated (February 2022) that due to pandemic situation, RI did not render their service and also ASFAC was unable to process the release fund in time due to less manpower.

#### **2.2.5.8 Assistance for Food Processing Unit**

The assistance for Food Processing Units was given under HMNEH at 50 *per cent* of the cost norms (₹ 8.00 crore per unit).

Records (AAP, Progress Reports, Bill/Voucher, DPRs and concerned files) showed that two Food Processing Units<sup>34</sup> applied and were approved for providing financial assistance of ₹ 8.00 crore (₹ 4.00 crore each) under HMNEH. The assistance was

<sup>32</sup> Chief Executive Officer (CEO), Local Resource Person (LRP) and Accountant of the FPO

<sup>33</sup> ASFAC is an autonomous body under Department of Agriculture, GoA formed in 2001 with an objective to promote, finance and support producer owned and controlled organisations

<sup>34</sup> (i) Amalgamated Plantations Pvt. Ltd, Nagaon and (ii) Sigma Spice Industries Pvt. Ltd, Kamrup

approved (January 2016 and March 2017) by the Empowered Monitoring Committee, GoI for production of spices<sup>35</sup> and the same was released during July 2017 to September 2020 to both units.

Memorandum of Understanding (MoUs) was signed with both the units with condition to do contract farming, collect raw materials preferably from local farmers and to submit progress report to the Department.

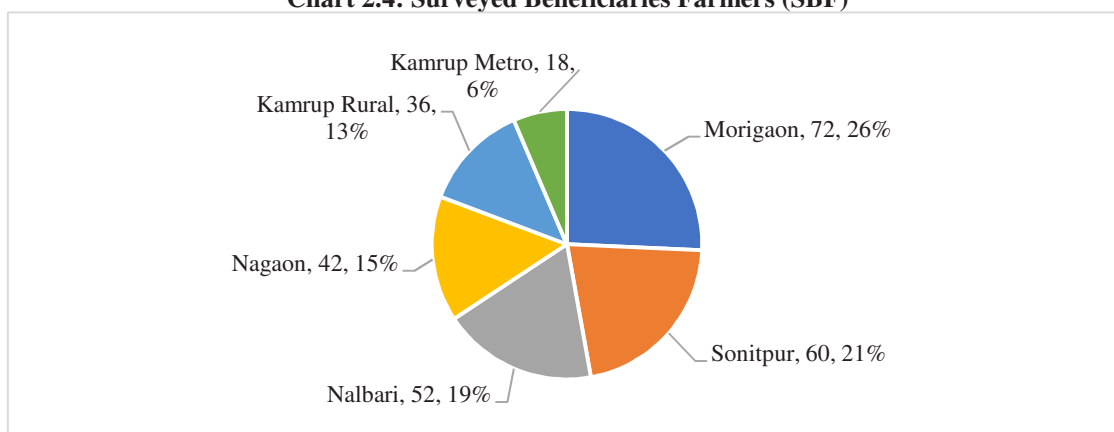
While Sigma Spice Industries, Kamrup was to produce all the spices, Amalgamated Plantations Pvt. Ltd, Nagaon was to produce only Black Pepper. Records showed that the units did not submit the periodical progress reports, and as such, benefits provided to local farmers, if any, could not be ascertained in audit. Sigma Spice Industries started (August 2016) commercial production, but the unit procured raw materials from outside the State due to the stated reason of non-availability of best quality of raw materials from local farmers. Thus, the intended benefit of contract farming and procurement of raw materials from local farmers was not achieved. Further, it was noticed that Amalgamated Plantations Pvt. Ltd, Nagaon did not furnish periodical progress reports and as such, the Department was also unaware of adherence to the conditions as laid down in the MoUs.

The Department accepted the facts and stated (February 2022) that necessary action will be initiated to implement the terms and conditions laid down in the MoUs signed between the Directorate and the industrial units.

### **2.2.6 Beneficiary Survey**

A total of 280 beneficiaries who received horticulture inputs under HMNEH and RKVY schemes were surveyed across the six districts of Assam. The beneficiaries were selected based on the Actual Payees Receipts (APRs) and availability of farmers<sup>36</sup>. The beneficiaries surveyed on various parameters relating to the benefit derived from the assistance provided under the said schemes.

**Chart 2.4: Surveyed Beneficiaries Farmers (SBF)**



<sup>35</sup> (i) Amalgamated Plantations Pvt. Ltd, Nagaon: Chilly, Large Cardamom, Ginger, Turmeric, Pepperlong, Bay Leaf, Leeks, Coriander, Mustard and (ii) Sigma Spice Industries Pvt. Ltd, Kamrup: fresh fruits and Coriander, Cumin, Chilly and Turmeric

<sup>36</sup> Seeds/planting materials for 30 Horticulture crops were found received by the available farmers. The farmers reported production of 24 Horticulture crops.

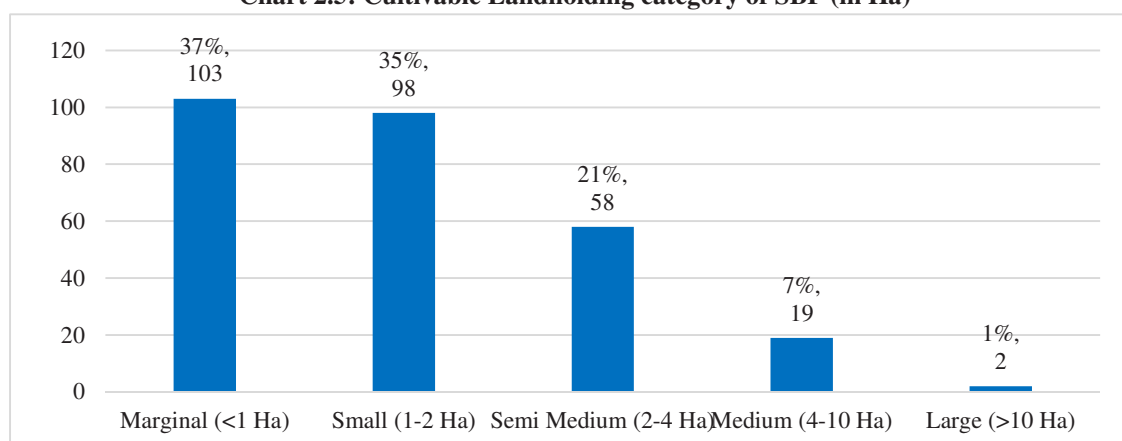
**(i) Profile of Beneficiaries**

The surveyed farmer beneficiary (SBF) had an average cultivable land of 1.85 Hectares (Ha). Larger average cultivable landholding was seen in Nalbari.

**Table 2.10:-Beneficiary Cultivable Landholding (in Ha)**

District	Average cultivable land	Maximum cultivable land	Minimum cultivable land
Kamrup Rural	1.75	7.36	0.40
Kamrup Metro	1.34	4.82	0.40
Nagaon	1.66	2.68	0.40
Nalbari	2.72	40.16	0.27
Morigaon	1.55	8.03	0.33
Sonitpur	1.82	6.69	0.27
<b>Overall</b>	<b>10.84</b>	<b>40.16</b>	<b>0.27</b>

Almost 71 per cent of the farmer surveyed had Marginal or Small cultivable land of less than two Hectares or 15 Bighas. The summary of cultivable land of SBF is given in **Chart 2.5**.

**Chart 2.5: Cultivable Landholding category of SBF (in Ha)**

All the 280 SBF were cultivating Agriculture crops and partially horticulture crops. Around 36.40 per cent of the cultivable land was put for use of horticulture crops by the surveyed beneficiary farmers.

**Table 2.11:-Percentage of cultivable land used for Horticulture Crops**

District	Number of SBF	Total cultivable land (in Ha)	Percentage <sup>#</sup> of cultivable land used for Agriculture crops	Percentage <sup>#</sup> of cultivable land used for Horticulture crops
Kamrup Rural	36	62.92	92.02	20.96
Kamrup Metro	18	24.10	68.34	34.15
Nagaon	42	69.61	94.62	33.08
Nalbari	52	141.63	65.88	54.38
Morigaon	72	111.45	83.30	31.33
Sonitpur	60	109.30	86.89	29.76
<b>Overall</b>	<b>280</b>	<b>519.01</b>	<b>80.15</b>	<b>36.40</b>

<sup>#</sup> Percentage total exceeds 100, as some SBF used a portion of same plot of land for both agri-crops and horti-crops

**(ii) Assistance of seeds/planting materials received by the farmers**

One of the objective of the schemes was to provide assistance for promotion and development of horticulture crops. The Directorate provided assistance by way of issue of seeds/planting materials only.

Audit asked the farmers about supply of seeds/planting materials of their choice. The response of 267 (out of 280) beneficiary farmers is summarised in **Table 2.12**.

**Table 2.12:-Receipt of assistance by farmers as per their choice**

District	Number of SBF responded	No. of SBF who received Inputs as per farmers' choice		
		Received in full	Partially received	Not received at all
Kamrup Rural	32	03	17	12
Kamrup Metro	17	00	10	07
Nagaon	36	03	08	25
Nalbari	52	01	28	23
Morigaon	72	0	72	0
Sonitpur	58	0	15	43
<b>Overall</b>	<b>267</b>	<b>07</b>	<b>150</b>	<b>110</b>

In response to our question on when did the farmers start cultivation of horticulture crops, it was seen that only 27 out of 280 farmers started cultivating horticulture crops in the last five years and the remaining 253 farmers were cultivating since 1990 onwards.

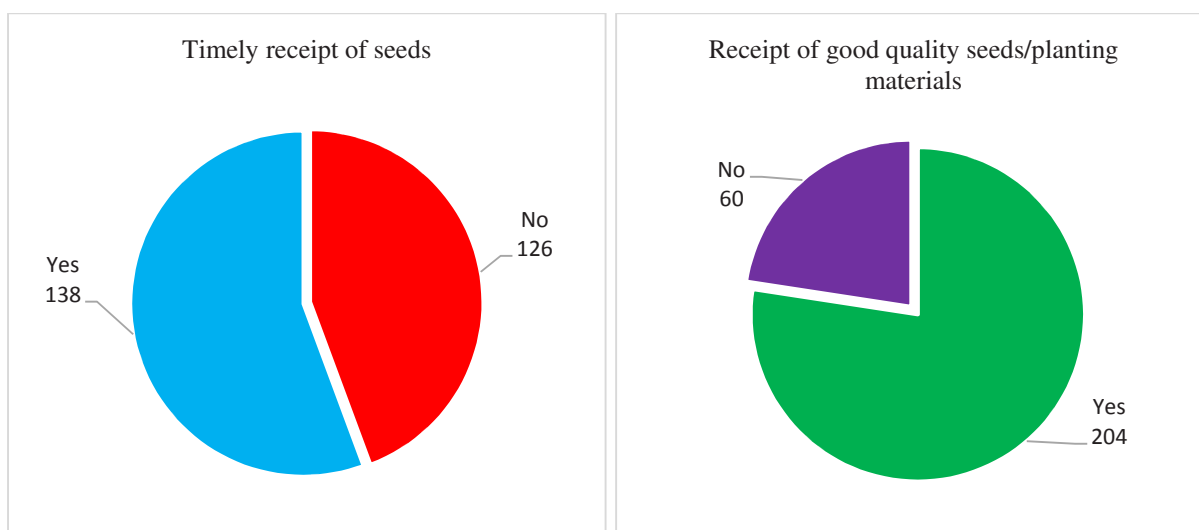
None of the surveyed beneficiary farmers stated receipt of same seeds/inputs in the subsequent years.

**(iii) Supply of seeds/planting materials**

One of the objectives of the schemes was to supply good quality seeds/planting materials before the start of sowing season. Out of the 280 SBF, 264 farmers received seeds/planting materials.

Audit asked the farmers about the quality and timely receipt of seeds/planting materials. The response of the farmers was as shown in **Chart 2.6**.

**Chart 2.6: Receipt of timely and good quality seeds/planting materials**



It was also seen that 79 farmers did not receive seeds in time though they received good quality of seeds/planting materials.

**(iv) Assessment of production of horticulture crops**

The production of horticulture crops was calculated by audit based on the data as per Package of Practices for Horticulture Crops (PoP), GoA due to non-undertaking of crops estimation of horticulture crops by the Districts.

In order to assess the production of horticulture crops against the seeds/planting materials received from the District Agriculture Offices/self-procured by the beneficiary farmers, audit asked about the production of horticulture crops cultivated by the farmers. The position reported by the farmers was analysed for 16 horticulture crops and it was seen that in 12 horticulture crops maximum production reported by farmer was less than the minimum production as per PoP of the respective horticulture crop. The response of farmers *vis-à-vis* data of PoP was in **Table 2.13**.

**Table 2.13:-Yield rate reported by SBF and as per PoP**

Horticulture Crops		Yield rate reported by SBF		Standard yield rate as per PoP		Number of SBF received seeds/planting materials	Number of SBF who reported more production
Type of Crop	Name of Crop	Minimum Production in Qtl/ha	Maximum Production in Qtl/ha	Minimum Production in Qtl/ha	Maximum Production in Qtl/ha		
Fruits	Banana	59.76	298.80	300.00	400.00	39	
	Strawberry	3.74	194.22	200.00	250.00	34	
	Water Melon	74.70	224.10	280.00	465.00	27	
Spices	Chilli	7.47	74.70	70.00	80.00	84	1
	Onion	52.29	134.46	150.00	200.00	78	
Vegetables	Ash Gourd	149.40	179.28	185.00	325.00	12	
	Bhendi	59.76	156.87	150.00	200.00	54	1
	Bottle Gourd	29.88	112.05	120.00	250.00	53	
	Brinjal	7.47	179.28	200.00	200.00	122	
	Cabbage	37.35	186.75	200.00	250.00	109	
	Capsicum	3.74	59.76	70.00	80.00	35	
	Cauliflower	37.35	149.40	150.00	200.00	67	
	Cucumber	29.88	74.70	50.00	60.00	54	9
	Potato	11.21	89.64	100.00	160.00	150	
	Ridge Gourd	5.98	112.05	90.00	130.00	42	2
Tomato	14.94	313.74	350.00	400.00	167		
						<b>Total</b>	<b>13</b>

**(v) Post-harvest assistance**

One of the objective of the schemes was to provide post-harvest assistance by way of construction of storage facilities (cold room, cold storage, *etc.*).

Audit asked whether the farmers received post-harvest assistance and the response of the farmers was that only one farmer (out of 280) received post-harvest assistance.

Further, audit asked the farmers about damage of crops in absence of post-harvest storage facilities. The response of farmers is summarised in **Table 2.14**.

**Table 2.14:-Damage of crops due to want of post-harvest storage facilities**

District	Number of SBF	Name of crops	Total quantity (in Qtl.)		Percentage of damage
			Produced	Damaged	
Kamrup Rural	04	Cabbage, Cauliflower, Cucumber, Strawberry and Tomato	589.00	37.35	6.34
Nagaon	01	Brinjal	220.00	2.00	0.91
Nalbari	10	Cabbage, Cauliflower, Chilli, Raddish, Ridge Gourd, Strawberry and Tomato	1,102.50	121.80	11.05
Morigaon	01	Brinjal, Chilli and Tomato	140.00	52.50	37.50
Sonitpur	09	Bottle Gourd, Brinjal, Cabbage, Cauliflower, Cucumber, Potato and Tomato	2,367.50	41.60	1.76
<b>Overall</b>	<b>25</b>		<b>4,419.00</b>	<b>255.25</b>	<b>5.78</b>

The farmers reported that the overall 5.78 *per cent* of the production was damaged having the approximately value of ₹ 4.46 lakh. In the additional comments, 64 beneficiary farmers sought for post-harvest facility assistance.

**(vi) Training and skill development**

One of intended objective of the schemes was to impart training and awareness programmes to the farmers for adoption of high yielding varieties of crops and farming system as well as adoption of modern techniques of cultivation.

Audit asked whether the farmers were provided training, awareness programs, workshops, *etc.* The response of the farmers was that overall 16.79 *per cent* farmers received training, *etc.* as shown in **Table 2.15**.

**Table 2.15:-Position of training, awareness programs, workshops, etc.**

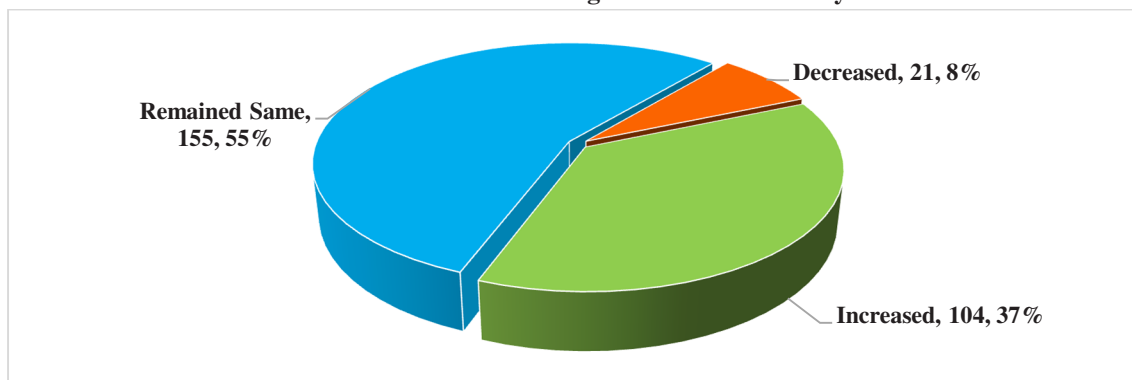
District	Number of SBF	Number of SBF received	Number of SBF not received	Per cent SBF received training, etc.
Kamrup Rural	36	17	19	47.22
Kamrup Metro	18	02	16	11.11
Nagaon	42	00	42	0.0
Nalbari	52	11	41	21.15
Morigaon	72	13	59	18.05
Sonitpur	60	04	56	6.67
<b>Overall</b>	<b>280</b>	<b>47</b>	<b>233</b>	<b>16.79</b>

There was demand for training by 12.50 *per cent* of the beneficiary farmers.

**(vii) Change in income of farmers**

To assess the impact of the schemes on income of farmers, audit asked whether the farmers had seen an increase in income in the last five years. While around 35 *per cent* of the respondents stated that there had been increase in income, there was also another eight *per cent* who stated that their income had shown a decrease as depicted in **Chart 2.7**.

Chart 2.7: Self-Assessed change in Income in last 5 years



The response of the farmers by District, and by cultivable landholding category is shown in Table 2.16.

Table 2.16:-Self-Assessed change in Income in last 5 years – By District

District	Increased	Remained Same	Decreased	Total SBF	Per cent Reporting Increase in Income
Kamrup Rural	09	22	05	36	25
Kamrup Metro	12	05	01	18	67
Nagaon	0	42	0	42	0
Nalbari	36	11	05	52	69
Morigaon	36	30	06	72	50
Sonitpur	11	45	04	60	18
<b>Overall</b>	<b>104</b>	<b>155</b>	<b>21</b>	<b>280</b>	<b>37</b>

Of the farmers who stated an increase in income, 58.6 per cent attributed the increase to reasons other than increase in crop production.

Table 2.17:-Reason stated for increase in income

Stated Reason for Increase in Income	SB Farmers	per cent SB Farmers
Due to Increase in Production of Horticulture Crops	04	3.9
Due to Increase in Production of Horticulture and Agriculture Crops	39	37.5
Due to Income from Other Sources	61	58.6
<b>Total SB Farmers stating increase in Income</b>	<b>104</b>	<b>100.0</b>

## 2.2.7 Evaluation and monitoring

Impact Evaluation Study by engaging independent organisation was required to be carried out as per directions of GoI. But no such evaluation was carried out for Horticultural schemes under both HMNEH and RKVY.

### 2.2.7.1 Monitoring through Hortnet and Progress Reports

The HMNEH guidelines envisaged to operationalise Information Communication Technology (ICT) enabled Management Information System (MIS) up to grass root level through Hortnet<sup>37</sup> website by the State. Further, the Chief Consultant deputed by GoI on his visit (January 2015) to Guwahati emphasised on the need to ensure that the progress

<sup>37</sup> Hortnet is web portal of Ministry of Agriculture and Farmers welfare, GoI tracking the Mission for Integrated Development of Horticulture (MIDH) scheme.



from each district should be uploaded from the respective district and the consolidated progress from the State HQ level.

Audit check of website showed that the district-wise monthly report was not found uploaded for years 2015-20. An aggregate number of 4,02,692 farmers (*Appendix-2.6*) were found registered in website but details of farmers could not be accessed. Further, the Director, H&FP could not provide the district wise monthly progress reports as well as the consolidated progress reports except annual progress reports (AAP wise) and also did not provide reasons for non-upload to website. Moreover, the annual progress reports which was provided to audit was found inflated and not as per actual achievement or progress as already detailed in this report in preceding paragraphs.

In view of the above-mentioned facts, it was evident that the monitoring mechanism to assess the implementation and progress of work through website was found absent.

### **2.2.8 Conclusion**

The Performance Audit on Promotion and Development of Horticulture showed that after incurring an expenditure of ₹ 243.12 crore during 2015-20, the Department managed to achieve marginal increase in Area under cultivation of fruits (17 *per cent*), vegetables (four *per cent*) and spices (18 *per cent*) in 2019-20 as compared to 2015-16. Similarly, there was increase in production under fruits (26 *per cent*), vegetables (12 *per cent*) and spices (99 *per cent*). The PA further showed that Annual Action Plans were prepared without base line survey and without following a bottom-up approach. The Directorate was not having the required information to know the potential, weakness and critical areas of promotion and development of Horticulture crops in the State. Records of beneficiary not maintained and selection of beneficiary as per AAPs was not done. Moreover, selected beneficiaries also failed to utilise assistance. Release of funds was not as per the actual requirement. The Fund management was not efficient, and there was also deficiency in utilisation of fund. Delayed issue of seeds/planting materials was noticed. Improper planning and lack of monitoring led to unproductive expenditure on Centre of excellence (CoE), Floriculture Unit, Nursery units. The progress reports were not prepared based on actual field level data, and as a result, achievement shown in progress reports was found factually not correct. Efforts for implementation of post-harvest management facilities were found lacking. Inadmissible allowance of subsidy was found in the scheme component pollination through bee keeping. Department failed to implement the scheme of certification and organic farming despite approval of the same by SLEC. Prescribed targeted training and awareness programme was not done. The system of monitoring mechanism found to be weak, and even the monthly reports required to be uploaded in GoI site was not uploaded nor was monthly progress report prepared and submitted. Third party evaluation as required to be done was not done.

### **2.2.9 Recommendations**

*State Government may*

- *Ensure preparation of Annual Action Plan after conducting baseline survey. Preparation of Perspective/Strategic Plan may be ensured.*



- Ensure that reporting of expenditure is done based on the basic accounting records maintained for capturing expenditure. The Finance Department needs to review the operation of bank accounts by departments.
- Fix Responsibility of the officials concerned in a time bound manner for unfavourable site selection for Model Floriculture Unit and lack of monitoring.
- Formulate a mechanism for effective project management including proper site selection, timely supply of planting materials, funds & manpower for maintenance and creation of post-harvest facilities.
- Ensure functioning of FPOs for improvement of cultivation techniques, processing and marketing of produces.
- Ensure training of farmers and revival of CsOE for skill development of local farmers through training and demonstration of horticulture crops.
- Closely monitor the functioning of Food Processing Units and ensure that the FPU discharge their liabilities and commitments in accordance with the MoU.
- Ensure effective monitoring of the implementation of projects, strengthening of periodical reporting and concurrent evaluation of the implemented projects.

## COMPLIANCE AUDIT

### Fisheries Department

#### 2.3.1 Fraudulent payment

**Director of Fisheries made excess payment to the contractors on the basis of fictitious measurements, leading to fraudulent payment of ₹ 44.39 lakh on Up-gradation of Jongal Balahu Garh Fish Farm.**

Rule 466 (1) of Assam Financial Rules (AFR) depicts that every Government servant should realise fully and clearly that he will be held personally responsible for any loss sustained by Government through fraud or negligence on his part, and that he will also be held personally responsible for any loss arising from fraud or negligence on the part of any other Government servant to the extent to which it may be shown that he contributed to the loss by his own action or negligence.

Fishery Department, Government of Assam administratively approved (31 July 2014) Up-gradation of Jongal Balahu Garh (JBG) Fish Farm<sup>38</sup> at an estimated cost of ₹ 7.29 crore. The technical sanction for the same amount was accorded by the Chief Engineer (CE), Department of Agriculture and financial sanction for ₹ 7.22 crore was accorded during June 2015 to March 2018. The estimate consisting of 17 sub-estimates with total value of ₹ 7.29 crore envisaged development of ponds, construction of internal roads, construction of brick boundary walls, campus lighting, renovation of old building, construction of watchman tower, plantation and beautification, construction of brick pavement and drains, installation of deep tube well, etc. The work was awarded (January-

<sup>38</sup> At Raha, Nagaon under RIDF- XIX of NABARD

March 2015) in six groups and was completed between February 2016 and February 2017 and payment of ₹ 7.22 crore was made between June 2015 and March 2018.

In September 2018, one RTI activist lodged a complaint with Director of Fisheries alleging misappropriation of funds on execution of the above works. Based on the complaint, a preliminary departmental enquiry was conducted by a committee headed by Joint Director of Fisheries. In March 2019, Director of Fisheries (DoF) submitted a preliminary departmental inquiry report and found prima-facie evidence of misappropriation of funds in excess of ₹ 2.00 crore. Consequent to this inquiry, the Junior Engineer (JE), who was found responsible for recording incorrect MBs, was placed under suspension (March 2019) and a show cause notice was issued in May 2019. However, the Hon'ble High Court, in its interim order, directed (June 2019) the Government not to proceed against the officer with the show cause notice. The Department did not file any review petition for vacating the interim order as of December 2021.

DoF requested (February 2019) the Chief Engineer, Irrigation Department for deputing a senior technical officer for conducting further inquiry and the CE, Irrigation Department deputed Superintending Engineer (SE), Irrigation Department for the inquiry, who submitted his report in June 2019. DoF informed (September 2019) the CE, Irrigation that the report submitted by the SE, Irrigation was not based on facts and was misleading one which appeared to shield the accused officer/contractor. The DoF further requested (September 2019) the CE, Irrigation Department to depute Additional Chief Engineer level officer for conducting a fair inquiry. The CE expressed his inability to spare an Addl. CE Level officer for the inquiry.

Audit scrutiny (August–September 2019) of records of 17 sub-estimates followed by a joint site visit (04 September 2019) along with the departmental officers for three sub-estimates<sup>39</sup> showed that the executed quantities of various items of works were not at par with recorded measurements in Measurement Book (MB) as described below:

- a) Against the sub-estimate of Development of internal road of JBG fish farm, construction of 330 m of road was measured at ₹ 10.87 lakh against estimated 295 m. Joint site visit, however, revealed construction of only 115 m road length with short execution of 215 m, resulting in payment of ₹ 6.13 lakh to the contractor for unexecuted road length as detailed in **Table 2.18**.

**Table 2.18:-Item-wise status of short execution of work**

Sl. No.	Items of work	Length as per MB (m)	As per site (m)	Amount as per MB	Value on short-execution
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6 [(5/3) x(3-4)]</i>
1a	Construction of sub-grade and earthen shoulder	330.00	115.00	1,53,369.52	99,922.57
1b	Extra Lead for carriage beyond initial lead			18,189.33	0.00
2	GSB	330.00	115.00	2,79,281.52	1,81,956.14
3 a)	WBM-II	304.70	115.00	2,52,445.54	1,57,167.44
3b)	WBM-III	210.00	115.00	1,89,892.08	85,903.56
4	PC	210.00	115.00	34,965.00	15,817.50

<sup>39</sup> Sub-estimate No.-2: Development of internal road; Sub-estimate No.-8: Provision for campus lighting and Sub-estimate No.-16: Construction of brick pavement and drain.

Sl. No.	Items of work	Length as per MB (m)	As per site (m)	Amount as per MB	Value on short-execution
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6 [(5/3) x(3-4)]</i>
5	TC	210.00	115.00	9,324.00	4,218.00
6	Open Graded Premix Surfacing	210.00	115.00	1,01,010.00	45,695.00
7	Seal Coat	210.00	115.00	48,951.00	22,144.50
<b>Total</b>					<b>6,12,824.71</b>

- b) Against the sub-estimate of Construction of brick pavement and drain, construction of 7,175 sqm<sup>40</sup> brick edge floor was measured at ₹ 32.87 lakh<sup>41</sup> against estimated provision of 7,190 sqm. Joint site visit, however, revealed construction of only 3,759.60 sqm<sup>42</sup> with short execution of 3,415.40 sqm<sup>43</sup>, resulting in payment of ₹ 15.64 lakh<sup>44</sup> to the contractor for unexecuted work. Further, ₹ 17.35 lakh was paid to the contractor by measuring 2,243.35 RM of 300 mm x 25 mm drain with brick work without any such execution.
- c) Against the sub-estimate of campus lighting, the Director paid for erection of 71 straight tubular pole with 150 watt High Pressure Sodium Vapour (HPSV) street light @ ₹ 23,952.18 *per* pole. Joint site visits, however, revealed that only 49 such poles with lights were installed at the site. Thus, ₹ 5.27 lakh<sup>45</sup> was paid against 22 poles without such erection.

Thus, there was excess payment to the contractors on the basis of fictitious measurements, leading to suspected fraudulent payment of ₹ 44.39 lakh<sup>46</sup> in three works stated above. The Department stated (April 2021) that ₹ 16.93 lakh was adjusted against security deposit leaving a balance of ₹ 27.42 lakh which needs to be recovered from the contractors.

Audit pointed out an illustrative observation on less execution based on three selected works alone. As such, in view of departmental inquiry conducted by DoF and in the light of audit observation, the entire 17 works may be reviewed and measured by the appropriate competent technical authority and affect recovery of the amount determined by such authority. Also, appropriate action as per the provision of AFR may be taken against the officers/staff found responsible for any irregularity in the execution of these 17 works, and against the SE for submitting incorrect report.

The matter was reported to the Government (February 2021 and December 2021) and discussed in a meeting (December 2021). The Joint Secretary-cum-Director, Fisheries Department, while accepting the audit observation stated (December 2021) that FIR had been lodged against the defaulting contractor and the matter was sub-judice. The Department also assured during exit meeting that the whole works would be reviewed in

<sup>40</sup> 2870 m long and 2.5 m wide

<sup>41</sup> 7175 sqm @ ₹ 458.06 per sqm

<sup>42</sup> 1879.80 m length with average width of 2 m

<sup>43</sup> 7175.00 m – 3759.60 m

<sup>44</sup> 3415.40 m @ ₹ 458.06 per m

<sup>45</sup> 22 poles @ ₹ 23,952.18 per pole

<sup>46</sup> ₹ 6.13 lakh+₹ 15.64 lakh+₹ 17.35 lakh+₹ 5.27 lakh

the light of audit observation and action would be initiated against the SE, Irrigation Department.

### Public Works (Roads) Department

#### 2.3.2 Extra expenditure

**Chief Engineer, Public Works Department (Border Roads) converted flexible pavements to ICBP<sup>47</sup> under PMGSY by revising the original estimates during the execution stage, and used unprescribed lower grade materials at a rate higher than that of the prescribed higher grade material. The revised working estimates escaped competitive bidding resulting in extra expenditure, which in 18 selected works amounted to ₹ 2.82 crore excluding taxes.**

PMGSY, is a centrally sponsored scheme under which Rural Roads are constructed with both Central Government and State Share, which in the case of Assam is in the ratio of 90:10, with 10 *per cent* being borne by Government of Assam (GoA). The scheme envisages construction of all-weather roads having a metalled water bound macadam (WBM) surface. Based on a request of GoA in keeping with assessment that ICBP roads are faster to construct, have low maintenance and long life, and can be constructed even during monsoon season, the Ministry of Rural Development, GoI, permitted in May 2018 for construction of Rural Roads using Interlocking Concrete Block Paver (ICBP), including conversion<sup>48</sup> of roads already sanctioned, in place of the existing conventional flexible pavement design using metalled surface. The approval conveyed by GoI was subject to the following *inter alia* conditions:

- i. specifications for ICBP indicated in clause 1504 of MoRD Book of Specifications for Roads and Bridges published by IRC is to be followed; and
- ii. additional cost required due to conversion of roads to ICBP would solely be borne by the State Government in addition to mandatory 10 *per cent* State share.

Further, as per section 1504 of Ministry of Rural Development (MoRD) 'Quality Assurance Handbook for Rural Roads' published (December 2016) by National Rural Roads Development Agency, concrete paving blocks shall conform to the relevant IRC:SP:63 published by Indian Road Congress (IRC). IRC:SP:63-2018 provides that M30 grade ICBP with the block thickness of 60 mm shall be used for cycle tracks and pedestrian footpaths while M40 grade with the block thickness of 60-80 mm was prescribed for commercial traffic. Moreover, the IRC prescribed pavement design of two layers (Sand Bed and Granulated Sub-base) for laying M30 grade ICBP while three layers {Sand Bed, Water Bound Macadam (WBM)/ Wet Mixed Macadam (WMM) and Granulated Sub-base (GSB)} was provided for laying M40 grade ICBP.

<sup>47</sup> Interlocking Concrete Block Paver.

<sup>48</sup> in cases where the projected traffic was less than 250 vehicles per day (excluding two wheelers).

Rule 466 (I) of AFR stipulates that every public officer should exert the same vigilance in respect of public expenditure and public funds generally as a person of ordinary prudence would exercise in respect of expenditure and the custody of his own money.

Audit noted that GoI sanctioned 3,144 roads under PMGSY during the year 2017-18 to 2019-20. Subsequent to the approval for conversion received from GoI, GoA changed the scope of work in case of 1,279 works (41 *per cent*) by converting from the provision of pre-mix carpeting to ICBP during execution. The year-wise position is shown in **Table 2.19**.

**Table 2.19:-Status of roads under PMGSY during the year 2017-20**

(₹ in crore)							
Year	Number of roads sanctioned	Estimated cost	Tendered cost	Number of roads converted to ICBP	Revised cost	Additional Cost over Estimate	Additional Cost Over Tendered cost
2017-18	2,399	5,356.24	5,537.09	1,054	6,127.10	770.86	590.01
2018-19	492	2,284.30	2,199.04	167	2,301.50	17.20	102.46
2019-20	253	1,334.16	1,274.61	58	1,334.73	0.57	60.12
<b>Total</b>	<b>3,144</b>	<b>8,974.7</b>	<b>9,010.74</b>	<b>1,279</b>	<b>9,763.33</b>	<b>788.63</b>	<b>752.59</b>

*Source: Information furnished by Chief Engineer, PWD (Border Roads), Assam.*

Scrutiny showed that the Department did not revise the already approved estimates by including provisions for ICBP before finalising the tender in all the PMGSY works where ICBP was executed in place of sanctioned provision of premix carpeting. We further noted that even in case of 225 out of the 1,279 works mentioned above, which were put to tender subsequent to the approval of GoI for conversion into ICBP, change in the scope of work and modification in the estimates were not carried out. The Department facilitated the inclusion of ICBP by framing working estimates and drawing up revised Bill of Quantities (BoQ)<sup>49</sup> during execution stage only. Since the entire tender process and allotment of work to contractor are done based on the original estimates, the rates of newly included items of working estimates escaped competitive bidding.

During test check of records in five divisions<sup>50</sup>, Audit came across 18 such works (detailed in *Appendix-2.7*) executed during 2017-19 where ICBP were included. It was noticed that original provision of base and bituminous items<sup>51</sup> were replaced during execution with ICBP grade M30 (80 mm) by analysing its rate at ₹ 1,104.70 per sqm including GST.

Audit observed that ICBP grade M30 was not prescribed for vehicular traffic as per IRC SP:63; while ICBP grade M40, prescribed for vehicular traffic as per IRC SP:63, was also a scheduled item in the SoR of Public Works Department (PWD) Rural Roads for the year 2017-18 at a stipulated rate of ₹ 918.70 per sqm including VAT. The Department, however, did not consider the M40 grade and used unprescribed lower grade ICBP

<sup>49</sup> It is a statement of rates against item wise quantity agreed between the contractor and department.

<sup>50</sup> Mangaldoi and Dalgaon Territorial Road Division (TRD), Charaideo District TRD, Doom Dooma and Sadia TRD, Kohora Road Division and West Guwahati TRD.

<sup>51</sup> WBM-II/III, Prime Coat, Track Coat, Premix Carpeting and Seal Coat.



(M30), the rates for which were determined to be even more than the higher prescribed grade ICBP (M40).

The Department executed the road construction works by laying M30 grade ICBP on three layers of pavement designs (Sand Bed, WBM and GSB) in violation of the specification of IRC SP:63 as only two layers of pavement designs (Sand Bed and GSB) were required for laying M30 grade ICBP. As such, despite executing the works by adopting layer specification required for M40 grade ICBP, the Department used lower unprescribed grade of ICBP leading to extra financial burden on the State Exchequer.

In view of above, the expenditure of ₹ 130.78 crore was incurred against the 18 works test checked in audit, by using lower unprescribed ICBP (M30) for which roadworthiness could not be ascertained. On the other hand, even with conservative estimates, adoption of higher price for lower grade of items resulted in extra expenditure of ₹ 2.82 crore<sup>52</sup> excluding taxes. If all such conversions of PMGSY roads to ICBP where work was executed post-tender process through Supplementary tender at analysed rate is taken into account, the loss to government would be far higher.

Thus, use of M30 Grade ICBP as supplementary item lacked adequate justification, and construction of roads using ICBP under PMGSY did not face any competitive bidding besides compromising on the quality of road.

The matter was reported (October 2021) to Government and discussed in a meeting (December 2021). The Department forwarded (December 2021) a reply along with a working sheet showing the rate analysis of ₹ 1,104.70 per sqm for M30 item. In its reply, the Department justified the increase in analysed rate of M30 *vis-à-vis* the SOR rate for M40 due to (i) change in the notified rates of labour wage, (ii) increase in price of paver blocks and (iii) GST. Further, the Department assured that original estimate would be prepared with the provision of ICBP and tendering would also be done including the provision of ICBP from next time onward.

The reply is not acceptable as M30 grade ICBP was not supposed to be used for vehicular traffic as per the standard prescribed under Quality Assurance Handbook of Rural Road Development Agency.

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Sl. No.	Particulars	Amount (in ₹)
i)	Rate of ICBP (M30) analysed by the department including tax (GST-12%, LC-1% & SB-0.5%)	1,104.70
ii)	Rate of ICBP (M30) analysed by the department excluding tax	973.30
iii)	Rate of ICBP (M40) including 5% VAT as per SoR 2017-18 PWD (Rural Road)	918.70
iv)	Rate after deducting 5% VAT already included in SOR 2017-18	874.95
v)	<b>Difference in rate {(ii)-(iv)}</b>	<b>98.35</b>
vi)	Total quantity utilised (in sqm)	2,87,130.72
vii)	<b>Total avoidable excess expenditure {col.(v) x col.(vi)}</b>	<b>2,82,39,306.31</b>

**Recommendation:-** Government may fix responsibility in a time bound manner at appropriate level for overlooking the financial interest of State exchequer and extending undue benefit to the contractors.

### 2.3.3 Undue financial benefit to the contractor and loss to Government

The contractor bagged the tender of the work of improvement and upgradation of SH-2 (Chapaguri to Manas River) by offering an unreasonably high amount of ₹ 23.81 crore (1,332 per cent above the estimated rate) as credits for salvaged items. Subsequently, by reducing the measured quantities and drawing an incorrect revised BoQ, the credit salvage value was reduced to ₹ 1.65 crore thereby extending financial benefit of ₹ 22.16 crore to the contractor, and estimated loss of ₹ 18.39 crore to Government.

Chief Engineer (CE), PWRD (ARIASP and RIDF)<sup>53</sup> issued (22 July 2013) Invitation for Bid (IFB) for Improvement and Upgradation of 31.287 Km of SH-2 (Chapaguri to Manas River) at an estimated cost of ₹ 108.91 crore<sup>54</sup>. Government of Assam accorded administrative approval (20 October 2014) of ₹ 165.45 crore for the project. The approved amount consisted of two parts viz., ₹ 129.58 crore for improvement and upgradation cost of the project and ₹ 35.87 crore for pre-construction activities<sup>55</sup>.

The estimated cost of ₹ 108.91 crore, put to tender, consisted of ₹ 110.57 crore for execution part and ₹ 1.66 crore for credit for salvage value against three items<sup>56</sup> of works. In response to the IFB, three bidders participated and quoted item wise rates as summarised in **Table 2.20**.

**Table 2.20:-Component-wise variation of quoted rate between three bidders**

(₹ in crore)

Components	Estimated cost	L <sub>1</sub>		L <sub>2</sub>		L <sub>3</sub>	
		Quoted cost	Variation	Quoted cost	Variation	Quoted cost	Variation
Execution	110.57	122.48	10.77 per cent above	104.09	5.87 per cent below	122.08	10.41 per cent above
(Less) Credit for salvage	1.66	23.81	1,332 per cent above	1.77	6.22 per cent above	1.15	30.77 per cent below
<b>Total cost</b>	<b>108.91</b>	<b>98.67</b>	<b>9.40 per cent below</b>	<b>102.32</b>	<b>6.05 per cent below</b>	<b>120.92</b>	<b>11.03 per cent above</b>

From the above, it would be seen that L<sub>2</sub> bidder offered the lowest cost for execution part. However, the L<sub>1</sub> bidder<sup>57</sup> bagged the contract by offering more than 14 times of estimated cost for salvage credit value, thereby bringing his final bid value down to 9.40 per cent below the estimated cost. This was despite his quoted amount for the Execution being the highest, at ₹ 11.91 crore above the estimate.

<sup>53</sup> PWRD: Public Works (Roads) Department; ARIASP: Assam Rural Infrastructure and Agricultural Services Society Project; RIDF: Rural Infrastructure Development Fund.

<sup>54</sup> Civil Works and Environmental Management Plan.

<sup>55</sup> Electrical and pipeline utility shifting, sewerage board, land acquisition and repair and renovation.

<sup>56</sup> Credit for salvage value for (i) Cutting of trees, etc., (ii) Removal of stumps left over and (iii) Dismantling of existing structures like culvert, etc., flexible pavements and re-use of dismantled materials.

<sup>57</sup> M/s ANPL-CMATPL.

The CE entered into an agreement (09 June 2015) with L<sub>1</sub> bidder with a clause that all parts of trees, including trunks, branches, stumps and all materials obtained from dismantling/ milling would be the property of the contractor for which rebate would be admissible according to respective BoQ item<sup>58</sup>. The contractor would be free to sell/ dispose the trees/material as deemed fit by him except existing pavement crust which would be reused. These were referred as salvage value for which the contractor offered ₹ 23.81 crore.

Because of the extremely high rates quoted by L<sub>1</sub> bidder for salvage credit value compared to both estimated cost and cost quoted by other participant bidders, audit carried out a comparative study in this regard. The study showed that out of total salvage value of ₹ 23.81 crore, two items viz., base/sub-base course and bituminous course comprised major part of the total at ₹ 21.36 crore. The quoted rate of salvage credit for these two items were seen to be unreasonably and ridiculously high, being even higher than the rate of construction of these two items as summarised in **Table 2.21** (detailed in **Appendix-2.8**):

**Table 2.21:-Item-wise quoted rate of salvage credit by L<sub>1</sub> bidder**

Item	Unit	Estimated salvage rate	Salvage rate quoted by L <sub>1</sub> bidder	Salvage Value by L <sub>1</sub> bidder	Average BOQ rate for fresh construction of Item	Bid salvage rate higher than rate for construction (in per cent)
1. Base/ sub base course	cum	₹ 650	₹ 8,000	₹ 20,35,38,960	₹ 2,500	220
2. Bituminous course	cum	₹ 100	₹ 15,000	₹ 1,00,69,200	₹ 9,875	52

However, the CE did not take cognisance of the reasonableness of the salvage rate quoted by L<sub>1</sub> bidder, and awarded (17 June 2015) the work at ₹ 98.67 crore with stipulation to complete the work by 16 June 2018.

The work commenced on 17 June 2015 and was completed on 08 August 2019. The Department paid (January 2020) ₹ 129.39 crore<sup>59</sup> to the contractor as final bill. Significantly, ₹ 1.65 crore only was deducted towards credit for the salvage instead of the agreed bid salvage value of ₹ 23.81 crore.

Audit observed that executed quantities of dismantling works for salvage shown upto IPC-28 were recorded in the MB. The corresponding salvage value of dismantled quantities upto IPC-28 stood ₹ 506.29 lakh<sup>60</sup> but the same were not recovered while releasing payment upto IPC-28. However, audit noted that the dismantled quantities had been substantially reduced in MB while drawing up IPC-29. Up to IPC-28, under dismantling of existing structures like culvert *etc.*, the execution against the sub items of Base/sub-base course and Bituminous course were 10,555.679 cum and 2,535.053 cum

<sup>58</sup> Bill of Quantities (BoQ) is agreed quantity and rates.

<sup>59</sup> ₹ 129.39 crore includes ₹ 104.04 crore towards value of work done, ₹ 22.58 crore for value of variation of quantity during execution and ₹ 2.77 crore for price adjustment paid for changes in cost (steel, cement, labour, bitumen, *etc.*) as per clause 13 of general condition of contract.

<sup>60</sup> For tree cutting, *etc.* ₹ 16,000; for Removal of stumps, *etc.* ₹ 95,50,000 and for Dismantling of existing structures like culvert, *etc.* ₹ 4,10,63,273.



respectively. But, in the 29<sup>th</sup> IPC, the dismantled quantity of Base/sub-base course and Bituminous course were shown as 3,309.831 cum and 1,609.836 cum respectively without putting any reason for such drastic reduction. The total salvage credit value at this stage worked out to ₹ 164.89 lakh, which remained unchanged till the final bill.

It was noticed that after completion of the work, on the request of the contractor, the Department approved (January 2020) a revised BoQ by reducing the quantities as shown in the **Appendix-2.9**. It was noted that for certain items *viz.*, tree cutting and removal of stumps, no salvage value was put in the revised BoQ despite such cutting and removals having actually taken place. As such, the revised BoQ was not correct.

The CE replied that the major reason for revision of BoQ was due to the fact that during execution of work, the quantities of certain items of work<sup>61</sup> varied from the contract BoQ and as such salvage amount was adjusted and reduced. The reply was not acceptable as the dismantled quantities were already recorded in the MB and the revised BoQ was drawn incorrectly.

Further, the contractor became L<sub>1</sub> solely due to the high rates offered for salvage amounting to ₹ 23.81 crore. Hence, acceptance of the request of the contractor for reduction of quantity extended undue benefit to the contractor, by enabling him to reduce the salvage credit to ₹ 1.65 crore, while reaping the benefit of the higher amount bid by him for execution of work. At the reduced salvage value of ₹ 1.65 crore, the contractor's bid was the highest bidder among the three participating bidders. It is clear that the contractor inflated the salvage credit amount in the tender only to become L<sub>1</sub>.

Acceptance of unreasonable bid, reduction in quantities disregarding MB recordings at the request of contractor, drawing of incorrect revised BoQ and the facts stated above indicated extension of deliberate and undue financial benefit to the contractor to the tune of ₹ 22.16 crore<sup>62</sup>. Had the Department taken cognisance of the unreasonable bid for salvage value quoted by L<sub>1</sub>, and rejected the bid as being unreasonable and invalid, the work could have been awarded at a lower cost offered by L<sub>2</sub>, saving an estimated ₹ 18.39 crore<sup>63</sup> for the Government.

The matter was reported to the Government (September 2021) and discussed in the exit meeting (December 2021). Department stated (December 2021) that although some of the items, especially the items of BoQ for credit for salvage materials were seriously unbalanced, however, apprehending the future litigation and consequent delay in completion of procurement process, the contract was awarded to the L<sub>1</sub> bidder at his quoted amount. The Department accepted that the quantities of works in case of credit for salvage materials was found to be reduced as per measurement initially recorded by the Engineer. But the quantities were re-measured by the Engineer and certified in the subsequent payment certificate. The quantities of salvage materials were found less than the BOQ quantities which has reduced the credit value from ₹ 21.36 crore to ₹ 1.30 crore.

<sup>61</sup> Like scarification of existing road, dismantling of structures, cutting of trees, *etc.*

<sup>62</sup> ₹ 23.81 crore *minus* ₹ 1.65 crore.

<sup>63</sup> Difference of quoted cost for execution by L<sub>2</sub> and L<sub>1</sub> (₹ 122.48 crore *minus* ₹ 104.09 crore).

The reply is not acceptable on the following grounds:

1. Entry in the measurement book (MB) is made after taking proper measurement and dismantled quantities had already been recorded in the MB and in all payment certificate upto the 28<sup>th</sup> certificate. Moreover, dismantled items were re-used in the work which leaves no scope for remeasurement.
2. Department had neither established any mechanism by restricting loop-holes in the system for rejection of unreasonable higher bids, nor ensured deduction of the tendered amount for salvage credit value from the contractor which made him L<sub>1</sub> to bag the bid.
3. Department did not consider the cost offered by L<sub>2</sub> bidder, who offered ₹ 1.77 crore against the estimated ₹ 1.66 crore for salvage credit value, which could have saved an estimated ₹ 18.39 crore of government money.

**Recommendation:-** Government may fix accountability in a time bound manner for this financial irregularity which has led to undue gain of ₹ 22.16 crore to Contractor, and estimated loss of ₹ 18.39 crore to Government. The Government needs to explore steps for recovery of the undue gain from the contractor.

## Water Resources Department

### 2.3.4 Exaggerated measurement led to suspected fraudulent payment

**Executive Engineer, Water Resource Division, Kajalgaon, made payment for collection of river boulders without deducting void and recorded exaggerated measurement in the measurement book giving rise to suspected fraudulent payment of ₹ 15.89 lakh.**

As per the Schedule of Rate (SOR) 2018-19 of the Water Resource Department (WRD), on collection of river boulder of size 23 cm to 30 cm average and minimum weight 30 kg (with 10 *per cent* under sized boulder allowed for packing/ filling the gaps occurred during execution of work), 15 *per cent* deduction would be made from the stack measured quantities on account of void. Void is the gap/empty spaces between boulders when stacked together.

The stipulated rate for collection of the river boulder in the SOR of WRD for the year 2018-19 was for the final compacted measurement. As such, the payment against supply of river boulder ought to be made after deducting the specified void of 15 *per cent*.

During test check of records of Deputy Commissioner (DC), Baksa, we noticed that the Executive Engineer (EE), Chirang, Water Resource Division, Kajalgaon, executed river boulder work in a flood control scheme<sup>64</sup> under SDRF 2018-19 at an estimated amount of ₹ 1.80 crore. Government of Assam, Revenue and Disaster Management (General) Department accorded (February 2019) administrative approval for the work. The plan and estimate prepared by the EE was technically sanctioned (February 2019) by the

<sup>64</sup> 'Immediate Measures for repairing of damages of F/E along L/B of river Beki river from Mothanguri to Bashbari (Ch. From 10,200.00M to 10,700.00M)'

Additional Chief Engineer (ACE), Kokrajhar Zone, Water Resource Department, BTC, Kokrajhar.

The ACE allotted (May 2019) the work to a contractor at a tendered value of ₹ 1.62 crore with the stipulation to complete the work within 90 days. The work was executed between 28 May 2019 and 22 June 2019. Based on the completion report submitted (09 July 2019) by the EE, the DC released (March 2020) payment of ₹ 1.62 crore to the contractor.

As per the approved estimate, 5,040 number of cages having volume of 1.0125 cum<sup>65</sup> each made of iron wire net sheets were to be launched after filling up with river boulder of size 23 cm to 30 cm in average and minimum weight of 30 kg. (10 *per cent* under sized boulder is allowable for packing/filling the gaps occurred during execution of works).

From the approved estimate Audit noticed as under:

- Volume of each cage: 1.0125 cum
- Total number of cages: 5,040
- Total volume of 5,040 numbers cages: 5,103 cum (5,040 x 1.0125 cum)

Therefore, maximum volume of 5,103 cum river boulders only could be accommodated in the cages with the volume of 5,103 cum. It is to be mentioned here that void between boulders will be a part of the volume of cages after dumping of boulders inside the cages. As such, requirement of river boulder to be supplied should not be more than 5,103 cum including void. Since the payment was to be made on compacted volume *i.e.*, after deducting 15 *per cent* void, admissible volume for payment would be 4,338 cum river boulder (5,103 cum *minus* 15 *per cent* towards void).

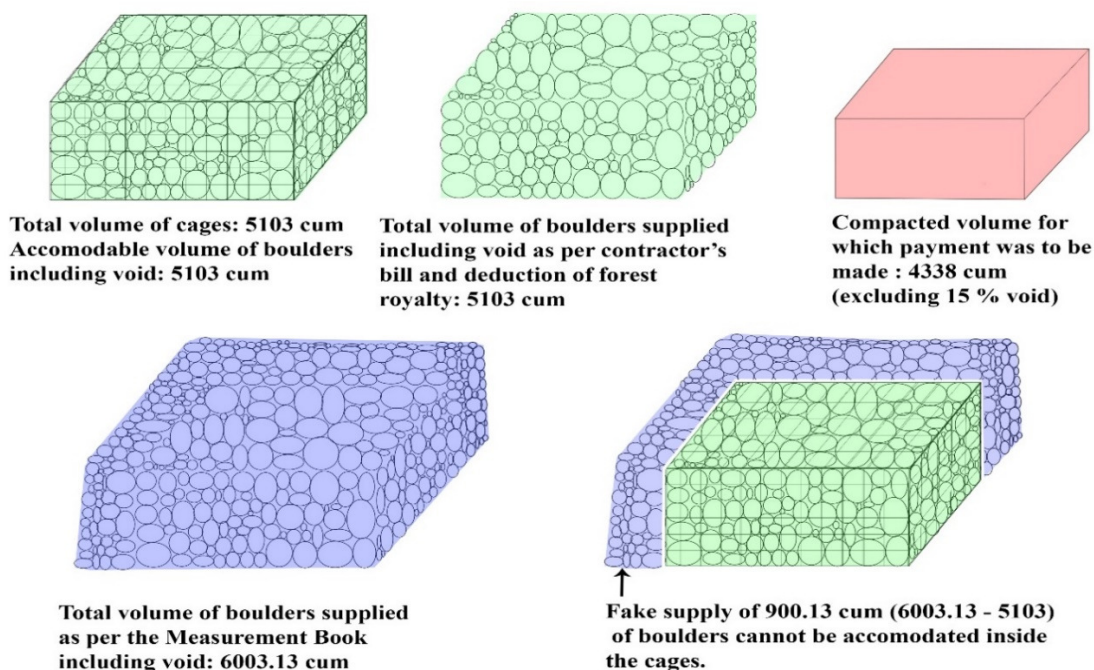
From the contractor's bill, it was seen that equal quantity of 5,102.66 cum (rounded off to 5,103 cum) of river boulders were supplied and Forest Royalty (FR) of ₹ 11,22,585<sup>66</sup> was deducted from the contractor's bill against supply of 5,103 cum river boulders which established the fact of supply of 5,102.66 cum boulders.

However, in the measurement book (MB), the EE recorded stack measurement of 6,003.13 cum of river boulders. Thus, EE recorded exaggerated volume of 6,003.13 cum in the MB against the supply of 5,103 cum river boulders, and payment was made for 5,103 cum (6,003.13 cum *minus* 15 *per cent* towards void) instead of the conceivable compacted volume of 4,338 cum. Thus the MB was falsified with fake supply of 900.13 cum (6,003.13 cum *minus* 5,103 cum) river boulders This led to suspected fraudulent payment to the tune of ₹ 15.89 lakh (detailed in **Appendix 2.10**) without executing such work which was not possible within the scope of actual execution. The fact is made clear from the picture given below:

<sup>65</sup> The size of each individual cages was 1.5m x 1.5m x 0.45m = 1.0125 cum.

<sup>66</sup> The prevailing rate of FR is @ ₹ 200 per cum and on the royalty 10 *per cent* other charges are levied as per Mines and Minerals (Development and Regulation Act) 1957. Thus, FR against 5,102.66 cum boulder is= ₹ 11,22,585 (5,102.66x ₹ 200 = ₹ 10,20,532 *plus* 10% charge of ₹ 1,02,053 = ₹ 11,22,585).

Chart-2.8



To ensure the actual execution of the work, audit conducted (06 March 2021) a Joint Physical Verification (JPV) with a technical representative from the executing agency along with a representative of Deputy Commissioner, Baksa. During the JPV, it was found that the sizes of the cages were as per the estimate and no loose pitching of boulders outside the cages were done.

Audit also noted that deduction of voids from the required volume of 5,103 cum was not done in the Statement appended to the estimate. Similar error was also made in preparation of the comparative statement.

During exit meeting convened in December 2021 to discuss the para, the CE accepted the observation and assured that the Department would take necessary action to avoid such type of observations arising in future. He further added that more focus should be given in preparation of estimates regarding void cases considering the SoR clauses and if needed the void clause in the SoR would be reviewed.

However, the reply of the CE was silent on action against the erring Engineers facilitating such fraudulent payment.