CHAPTER II

Performance Audits

2.1 Promotion and Development of Micro, Small and Medium Enterprises in Kerala

Executive Summary

Introduction

In Kerala, there were 2.57 lakh registered Micro, Small and Medium Enterprises (MSMEs) as of September 2015, with total investment of ₹17,986.46 crore and during 2014-15, MSMEs produced goods and services worth ₹7,119.75 crore, which accounted for 1.37 per cent of the Gross State Domestic Product. The total employment generated up to September 2015 was 13.19 lakh.

Implementation of policies and plans by Government of Kerala (GoK)

Measures outlined in the Industrial Policy, 2007 though not implemented were not included in the amended Policy (2015). Compared to neighbouring States, the industrial policy of Kerala fared poorly in terms of inclusion of specific provisions. Average utilisation of amounts allocated in the budgets of Directorate of Industries and Commerce (DI&C) for MSME development programmes was 70.43 per cent. Rehabilitation package as recommended by Government of India (GoI) was not implemented.

Promotion and Development programmes

Financial support

Kerala Financial Corporation (KFC) and Kerala State Industrial Development Corporation Limited (KSIDC) could provide finance to a very low number of MSMEs only. Rate of interest charged by KFC on loans to MSME sector was high when compared to other State Financial Corporations and commercial banks. Schemes for providing financial support to MSMEs such as Interest Subvention Scheme, Receivable Finance Scheme and Kerala State Entrepreneur Development Mission could not be implemented successfully. Only 6.48 per cent of new MSMEs availed of the Entrepreneur Support Scheme (ESS) of the DI&C due to exclusion of service sector and complex documentation required. There were irregularities in the implementation of the ESS as well.

Infrastructure Development

Delay in completion of multi-storeyed industrial estates deprived MSMEs of much needed infrastructure. Progress achieved in establishing Common Facility Centres under Micro and Small Enterprises-Cluster Development Programme was negligible. Parks established by Kerala Industrial Infrastructure Development Corporation (KINFRA) remained unutilised. Actual utilisation of developed land in the Industrial Growth Centres established by KSIDC was only 41.25 per cent. Scheme for modernisation of infrastructure in Development Areas/ Development Plots under DI&C with assistance of GoI remained unimplemented. The quality of infrastructure

provided in the industrial estates/ parks under Kerala Small Industries Development Corporation Limited was not satisfactory.

Facilitation Services

The Single Window Clearance scheme instituted for ensuring speedy issue of clearances required for establishing industrial units was not effective.

Marketing Support

Statutory provision regarding purchase of 20 per cent of requirements of goods/ services from MSMEs was not being complied with by the State PSUs/ Departments/ Government agencies, etc. Effectiveness of the expenditure incurred out of Government funds for conducting/participating in fairs/exhibitions for marketing MSME products was not assessed.

Findings of beneficiary survey

Majority of MSMEs who participated in a beneficiary survey conducted by Audit reported that they were not aided by the Single Window mechanism for obtaining necessary clearances. They also responded that they were not provided technical assistance such as assistance in preparing project reports, training in skill development/ entrepreneurship, help in tiding over financial crisis, quality raw material or marketing assistance. The quality of infrastructure, especially roads and security in Industrial Parks/ Estates, etc., was also reported to be inadequate.

Introduction

2.1.1 According to the Micro, Small and Medium Enterprises, Development Act, 2006 (MSME Act), Micro, Small and Medium Enterprises (MSMEs) are classified as under:

Table 2.1: Criteria for classification of MSMEs.

Enterprise (Type)	Investment in Plant and Machinery/ Investment in Equipment	
	Manufacturing	Service
Micro	Up to ₹25 lakh	Up to ₹10 lakh
Small	Above ₹25 lakh up to ₹5 crore	Above ₹10 lakh up to ₹2 crore
Medium	Above ₹5 crore up to ₹10 crore	Above ₹2 crore up to ₹5 crore

In Kerala, there were 2.57 lakh registered MSMEs as of September 2015[1], all promoted by individual investors/ firms in the private sector. Out of the total Small Scale Industries/MSMEs, 3.84 *per cent* were promoted by entrepreneurs belonging to Scheduled Castes, 0.72 *per cent* by Scheduled Tribes and 24.97 *per cent* by women entrepreneurs. The total investment in these 2.57 lakh MSMEs was ₹17,986.46 crore. During 2014-15, these MSMEs produced goods and services worth ₹7,119.75 crore which accounted for 1.37 *per cent* of the Gross State Domestic Product. The total employment generated up to September 2015 was 13.19 lakh (*Source: Economic Review, 2016 published by State Planning Board, GoK*).

[1] **Figures as at 17 September 2015 have been taken since after September 2015, the filing of Entrepreneur's Memorandum II (EMII) by newly registered MSMEs has been abolished and Udyog Aadhar Memorandum (UAM) made mandatory for all (new and existing) MSMEs.**

Agencies involved in promotion of MSMEs in Kerala

2.1.2 Department of Industries, GoK formulates the industrial policy for promotion and development of MSMEs. Schemes and projects for promotion and development of MSMEs in the State are implemented by the Directorate of Industries & Commerce (DI&C) and Public Sector Undertakings (PSUs) set up with this objective.

One of the main objectives of the Kerala Industrial and Commercial Policy, 2015 was mobilising MSMEs, particularly in rural areas, to achieve employment generation and utilisation of local resources. Kerala State Industrial Development Corporation Limited (KSIDC), Kerala Small Industries Development Corporation Limited (SIDCO), Kerala Financial Corporation (KFC) and Kerala Industrial Infrastructure Development Corporation (KINFRA) played major roles in the promotion and development of medium and small scale industries in Kerala. While KFC and KSIDC were primarily concerned with providing financial support in the form of equity participation, term loans, working capital loans, etc., KINFRA and SIDCO provided infrastructure and marketing support.

Other Government agencies involved in the promotion and development of MSMEs were Kerala Bureau of Industrial Promotion (KBIP), Kerala Academy for Skills Excellence, Kerala Institute for Entrepreneurship Development, etc., as detailed in ***Appendix 3.***

Audit Objectives

2.1.3 The main objectives of the Performance Audit were to assess whether:

- policy for promotion and development of MSME sector in the State was implemented effectively;
- the activities of Government Departments/agencies and PSUs in financing, protecting and promoting the interest of MSMEs in the State were adequate, efficient and effective; and
- the MSMEs promoted/ assisted by the Government Departments/ agencies and PSUs were functioning efficiently and contributing significantly to the economic and industrial development of the State.

Audit Criteria

2.1.4 The following criteria were adopted for the Performance Audit:

- State Industrial and Commercial Policy, 2007, amended in 2015;
- Micro, Small and Medium Enterprises Development Act, 2006 of Government of India (GoI);
- Guidelines issued by Central/ State Governments for various Schemes;
- Government Orders and Circulars;
- Memorandum and Articles of Association of the PSUs;
- Policies/ Plans/ Schemes formulated by PSUs;
- Best practices/ policies on MSMEs followed by other States;

- Norms of Reserve Bank of India on raising public finance by State Financial Corporations;
- Stores Purchase Manual of GoK; and
- Guidelines of Central Vigilance Commission.

Scope and Methodology

2.1.5 The Performance Audit was conducted to assess effectiveness of various activities, schemes and measures undertaken by GoK through its functional arms, the DI&C and four PSUs (KSIDC, KFC, KINFRA and SIDCO), for promotion and development of MSMEs in the State during the five year period from 2011-12 to 2015-16.

Four[2] out of fourteen District Industries Centres[3] (DICs) under the DI&C were selected through random sampling for detailed scrutiny. With respect to KFC, out of 5,268 units to whom loans were disbursed during 2011-12 to 2015-16, 1,054 (20 *per cent*) were selected on random basis for detailed review. In the case of SIDCO, 8 (out of 14) Industrial Estates (IE) and 6 (out of 36) Mini Industrial Estates were selected for joint inspection. Three out of ten Industrial Parks developed by KINFRA and all three Industrial Growth Centres promoted by KSIDC were inspected jointly.

A beneficiary survey amongst MSMEs located in IEs/ Industrial Parks of GoK/ PSUs was conducted using the questionnaire method for evaluating the effectiveness of the Government's initiatives in promotion and development of MSMEs.

The Performance Audit commenced with an Entry Meeting held on 9 May 2016 which was attended by Additional Secretary, Industries Department, GoK and the Managing Director, SIDCO. KFC was represented by Deputy General Manager, KSIDC by Deputy Manager and KINFRA by Manager (Technical).

The findings of the Performance Audit were issued to GoK and the PSUs in October 2016. Audit findings were also discussed with Special Secretary, Industries Department, GoK and Senior Management of the PSUs in an Exit Conference held on 8 November 2016.

Reply of GoK to the audit findings was received in March 2017. Views expressed by them have been duly considered while finalising the Report.

Audit Findings

2.1.6 The number of MSMEs registered annually in the country increased from 2.82 lakh in 2011-12 to 4.25 lakh in 2014-15, rate of growth in registration being 50.71 *per cent*. In Kerala, number of MSMEs registered had increased from 0.11 lakh in 2011-12 to 0.15 lakh in 2014-15 with a rate of

[2] Kottayam, Pathanamthitta, Palakkad and Kozhikode.
[3] DICs are the functional units of the DI&C and operate at district level to promote and develop industrial units.

growth of 36.36 *per cent*. As per the fourth All India Census (2006-07[4]) on MSMEs, 26 *per cent* of registered MSMEs in Kerala had either closed down or were non-traceable. This was mainly due to ineffective implementation of policy on the part of GoK and absence of financial, infrastructural and marketing assistance as discussed in succeeding paragraphs.

Implementation of policies and plans by Government of Kerala

2.1.7 The primary responsibility for promotion and development of MSMEs rests with the State Governments. GoI, through various initiatives, supplements efforts of the State Governments in encouraging entrepreneurship and employment generation. GoK is responsible for formulating appropriate policies and plans for the promotion and development of MSMEs in the State.

We noticed lapses in implementation of policies and plans on the part of GoK in this regard as discussed below.

Non-implementation of initiatives outlined in GoK's Industrial Policy

2.1.7.1 With a view to achieving rapid strides in industrialisation and to make Kerala a favoured destination for manufacturing, GoK suggested a slew of measures in its Industrial and Commercial Policy, 2007. The Industrial policy also contained many initiatives for the development of MSME sector. The status of implementation of these initiatives is tabulated in *Table 2.2*.

Table 2.2: Status of implementation of State Industrial Policy

Sl.No.	Objectives	Status of implementation
1	Strengthening the DICs for enterprise development in MSMEs.	Partially implemented by providing infrastructure to DICs.
2	Promoting MSMEs by using the funds from the decentralised plan devolved to the Local Self Government Institutions.	Not implemented
3	Utilising unused land of Local Self Government Institutions.	Not implemented
4	Supporting SSI Units giving price preference, exemption from EMD/ Security Deposit with specific conditions.	Implemented
5	Providing all help and support to entrepreneurs who seek financial assistance from banks and other financial agencies.	Partially implemented by introducing Kerala State Entrepreneur Development Mission through KFC.
6	Mobilising MSMEs particularly in rural areas to achieve employment generation and utilisation of local resources.	No specific scheme drawn up or implemented.

As can be seen from *Table 2.2* above, the State Government only partially implemented the steps outlined in its Industrial Policy for promotion and development of MSMEs. The Industrial Policy was amended and re-notified in 2015, the significant new measures included for promoting MSMEs being the following:

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[4] **Published in May 2011 by the Ministry of MSME, GoI.**

- Promoting “Made in Kerala” as an umbrella brand for all sectors.
- Upgradation of infrastructure in industrial areas and facilitating “exit” for industrial units located in such areas.
- Setting up an MSME Equity Participation Fund for encouraging start-ups in KSIDC and KFC.
- Facilitation of skilled workers through Employability Centres.

We observed that the measures outlined in the Industrial and Commercial Policy, 2007 though not implemented were not included in the amended Policy. No alternate measures were proposed.

GoK replied (March 2017) that the model scheme drafted by the DI&C for utilising the land available with LSGIs was under consideration.

Non-implementation of Central Schemes for MSMEs

2.1.7.2 Industrial and Commercial Policy, 2007 of GoK envisaged development of a system to monitor proper and timely implementation of Central Schemes and to tap maximum Central assistance for the development of industries and commerce in the State.

Recognising the importance of MSMEs to the overall economic development of the country, GoI introduced many schemes for development of MSME sector to be implemented by the State Governments/State Government Organisations. These schemes included International Co-operation, Assistance to Training Institutions, Marketing Assistance, Micro & Small Enterprises Cluster Development Programme (MSE-CDP), Building Awareness on Intellectual Property Rights, Technology and Quality Upgradation Support to MSMEs, Capital Goods Scheme, etc., as detailed in ***Appendix 4***. Development Commissioner (DC), MSME, GoI informed GoK of all Central Schemes. Awareness campaigns/workshops for Central Schemes were also organised by the DC, MSME.

We observed that other than MSE-CDP, the DI&C, which was primarily responsible for promotion and development of MSMEs, had not implemented any of the above schemes as GoK had not put in place a system for monitoring the implementation of Central Schemes for MSMSEs in the State. Further, no proposals were put up by the DI&C to GoK in respect of the schemes. Thus, MSMEs in the State were deprived of the opportunity provided by GoI for their development.

GoK while accepting (March 2017) the audit findings, assured that a nodal agency for tapping assistance under Central Schemes and monitoring their implementation was being designated.

Industrial policy for promotion and development of MSMEs of GoK *vis-a-vis* other States

2.1.7.3 We compared the provisions in the industrial policy of the State for promotion and development of MSMEs with those of neighbouring States of Tamil Nadu and Karnataka. The findings are tabulated in ***Appendix 5.***

It can be seen from ***Appendix 5*** that the industrial policies of Tamil Nadu and Karnataka contained provisions on reservation of land and financial and marketing assistance for the development of MSME sector. Compared to this, the industrial policy of Kerala fared poorly in terms of inclusion of specific provisions. The impact of this was borne out by the comparatively low rate of increase in the number of new MSMEs registered as depicted in *Table* 2.*3*.

Table2.3: Details of average annual increase in MSMEs

State	Average annual increase in number of new MSMEs registered from 2010-11 to 2014-15 (*per cent*)
Kerala	8.08
Tamil Nadu	25.42
Karnataka	11.80
All India	15.60

GoK replied (March 2017) that the overall growth in number of MSMEs registered from 2011-12 to 2014-15 was quite significant. The fact, however, remains that the growth rate of MSMEs in the State was low when compared to neighbouring States and the national average.

Non-utilisation of budget allocation for schemes for promotion and development of MSMEs

2.1.7.4 The details of budget allocation and actual utilisation of funds by DI&C in case of plan schemes is indicated in *Table 2.4.*

Table2.4: Details of budget allocation and utilisation of funds

(₹in crore)

	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Budget allocation	43.96	59.30	63.94	80.17	112.87	360.24
Actual utilisation of funds	31.74	50.71	51.51	45.97	73.79	253.72
Surrender	12.22	8.59	12.43	34.20	39.08	106.52
Percentage of utilisation	72.20	85.51	80.56	57.34	65.38	70.43

Source: Annual Budget and Finance Accounts

It can be observed that out of ₹360.24 crore allocated in the budgets from 2011-12 to 2015-16, utilisation was only ₹253.72 crore (70.43 *per cent*). Surrender of funds ranged from ₹8.59 crore (2012-13) to ₹39.08 crore (2015-16). Maximum underutilisation was in respect of schemes/ programmes shown in *Table 2.5*.

Table 2.5: Scheme wise underutilisation of funds during 2011-12 to 2015-16

(₹in crore)

Scheme	Budget allocation	Utilisation	Percentage of utilisation
Improving infrastructure in existing Development Area/ Development Plots	6.65	3.44	51.73
Construction of multi-storeyed Industrial Estate	79.30	32.50	40.98
Seed Fund to youth	11.00	0	0
Start-up subsidy for creation of employment opportunities	4.00	0	0
Employment generation in traditional sector	10.00	2.00	20.00

Source: Annual Budget and Finance Accounts of GoK

We also observed that out of ₹79.30 crore provided against the scheme 'Construction of multi-storeyed Industrial Estates', released amount of ₹32.50 crore was shown as expenditure in the statements furnished by the DI&C to GoK. However, ₹10 crore released (February 2013) for Multi-storeyed IE at Kochuveli and ₹7.50 crore released (February 2014) for Multi-storeyed IE at Puthussery to SIDCO remained unutilised. Thus, incorrect statement was given to GoK in respect of ₹17.50 crore.

GoK accepted (March 2017) the audit findings and stated that the Department/ Organisations had been advised to be careful while reporting the expenditure. The reply was not acceptable as corrective action had not been taken**.**

Non-commencement of rehabilitation package

2.1.7.5 A Task Force constituted under the chairmanship of the Principal Secretary to the then Prime Minister to address the issues of the MSME sector had recommended (January 2010) that State Governments should establish a rehabilitation cell at the district level, in the DICs, to examine the viability of sick units in coordination with banks and implement rehabilitation packages in a time bound manner. The rehabilitation package should comprise, besides additional lending by banks, of relief and concessions in statutory dues by the State Governments/autonomous bodies, Power Supply Company, etc.

We observed that implementation of a rehabilitation package was especially necessary in the State since as per the latest (2006-07) MSME Census, Kerala, with 21.02 *per cent* sick MSMEs topped the Indian States. Yet, GoK had not implemented the above recommendations so far (August 2016). Findings of the beneficiary survey conducted as part of the Performance Audit revealed that even though 48 *per cent* of the units surveyed faced financial crisis at one time or the other, GoK did not provide any financial help to them to tide over the crisis.

GoK assured (March 2017) that the matter would be considered while formulating industrial policy for the MSME sector.

Recommendation No. 1: ***Industrial policy of the State should be revamped with specific schemes and provisions for development of MSME sector,***

taking cue from the neighbouring States. Central assistance for MSME Sector schemes should be tapped to the maximum.

Promotion and Development programmes

2.1.8 Growth of MSMEs is dependent on availability of cheap finance, better Technology and Infrastructure, Marketing & Procurement support and Skill Development & Training. Role played by GoK and its agencies in making these available is discussed below.

Financial support

2.1.9 Cheap finance is a crucial input for promoting growth of MSME sector, in view of its limited access to alternative sources of finance. According to the Economic Census 2005[5], about 66.16 *per cent* of MSMEs in Kerala were set up with their own finance, about 8.22 *per cent* by availing loans from public and private institutions and a meagre 0.60 *per cent* with the subsidy received from GoK. The Industrial and Commercial Policy 2007 of GoK did not, however, include any specific scheme for providing financial support to MSMEs.

In Kerala, KFC, KSIDC and DI&C were the major agencies financing MSME sector. We noticed negligible share of GoK and its agencies in financing MSMEs, improper implementation of financing schemes, etc., as discussed below.

Share of agencies of GoK in financing MSMEs

2.1.9.1 As per Kerala Enterprise Development Report 2016 prepared by the Institute of Small Enterprises and Development[6] on behalf of DI&C, 92.03 *per cent* of the MSMEs in Kerala had not availed any loans from any institution as of March 2016. Among those that have availed loans, 73.89 *per cent* depended on banks for loans while the balance was accounted for by Co-operatives (10.67 *per cent*), private money lenders (5.75 *per cent*) and others[7] (9.69 *per cent).*

Of all MSMEs that availed loans, percentage of MSMEs that availed loans from KFC and KSIDC was 0.80 and 0.40 respectively. Details of MSMEs registered in Kerala from 2011-12 to 2015-16 and the financial assistance provided by KFC to MSMEs for the period from 2011-12 to 2015-16 is indicated in *Table 2.6*.

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[5] Published by the Ministry of Statistics and Programme Implementation, GoI in June 2006.

[6] A Non-Governmental Organisation based in Ernakulam, Kerala.

[7] Government departments (2.32 *per cent*), Kudumbasree (2.13 *per cent*), Local Self Government Institutions (1.23 *per cent*), NGOs (1.18 *per cent*), KFC (0.8 *per cent*), KSIDC (0.40 *per cent*), Kerala State Development Corporation for Scheduled Caste and Scheduled Tribes Limited (0.24 *per cent*), NBFC (0.24 *per cent*) and others (1.15 *per cent*).

Table 2.6: Details of funding of MSME by KFC

Year	Annual Registration of MSMEs (Number)	Assistance by KFC[8] (Number)	Percentage of assistance by KFC
2011-12	11,071	462	4.17
2012-13	13,551	309	2.28
2013-14	14,997	864	5.76
2014-15	15,455	1,241	8.03
2015-16 up to September 2015	7,705	1,414	18.35

Source: Annual Reports of KFC and Economic Review, GoK.

Percentage of MSME units set up with the financial assistance of KFC during the period 2011-12 to 2015-16 ranged from 2.28 *per cent* to 18.35 *per cent*.

We noticed deficiencies in the implementation of financing schemes for MSMEs as discussed below:

- According to the Statement of Objects of the State Financial Corporations Act, 1951, KFC will confine their activities to financing medium and small scale industrial units. The scanty number of MSMEs financed by KFC during the five years ended 31 March 2015 indicates that KFC had failed to fulfil its mandate and MSMEs had been deprived of any substantial capital or financial support from KFC.

  We observed that KFC had not carried out any study on the source of financing for MSME units in the State or to assess the requirements of the MSME sector for financing at reasonable cost. Such an analysis would have enabled the Corporation to evolve suitable financial products to fulfil the mandate for which it was established.

- One of the reasons for the reluctance of MSMEs to avail finance from KFC was the high rate of interest (14.50 *per cent*) charged by KFC on loans. This rate was in fact, the highest among 11 State Financial Corporations (SFCs)[9] in the country. The rate charged by KFC (14.50 *per cent*) for loans to MSMEs was also significantly higher when compared to that charged by commercial banks[10].

  The need for finance at affordable rates was highlighted by the stakeholders whose feedback was collected before formulating the Industrial policy. The suggestion was, however, not incorporated in the Industrial Policy, 2007/2015 or subsequent schemes except in Kerala State Entrepreneur Development Mission (KSEDM).

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[8] **Includes assistance to existing and newly registered MSMEs.**

[9] **Andhra Pradesh State Financial Corporation (13 *per cent*), Rajasthan State Financial Corporation (12 *per cent*), West Bengal State Financial Corporation (12.75 *per cent*), Karnataka State Financial Corporation (8 *per cent*), Tamil Nadu Industrial Investment Corporation (13.50 *per cent*), Maharashtra State Financial Corporation (13 *per cent*), Madhya Pradesh State Financial Corporation (12.75 *per cent*), Delhi State Financial Corporation (12.75 *per cent*), Orissa State Financial Corporation (13.50 *per cent*) and Assam State Financial Corporation (13 *per cent*).**

[10] **Interest rate in *per cent* as on 31/3/2016 is given in brackets - State Bank of Travancore (12.35 to 13.85), Union Bank of India (12.15 to 14.15), Federal Bank (12.12 to 13.62), Canara Bank (12.35 to 15.35).**

- As per MSME Act, 2006, the maximum investment limit by a manufacturing organisation in the MSME sector is ₹10 crore. As per the provisions of SFC Act, 1951, KFC is authorised to provide financial assistance to units with individual investment up to ₹10 crore only.

  During 2011-12 to 2015-16, the total amount of loan disbursed by KFC was ₹4,163.46 crore (5,268 loanees). We observed that out of the above, around 30 *per cent* (₹1,248.01 crore) was given to non-MSMEs. Further, ₹833.91 crore were distributed to 119 loanees with individual investment above ₹10 crore against the provisions of the SFC Act, 1951. The assisted industrial units were not MSMEs.

- Reserve Bank of India (RBI) granted (December 2012) in-principle approval for accepting public deposits by KFC. In order to comply with the guidelines of RBI for raising public deposits, KFC should not have more than 4 *per cent* gross non-performing assets (NPA) on the gross loans and advances as per its latest audited balance sheet. Since the gross NPA of KFC was 19.72 *per cent* as on 29 February 2016, KFC did not satisfy the above criterion and could not, therefore, accept public deposits.

  KFC had distributed ₹1,796.31 crore to the "Restaurant and Shopping Complex" (1,972 loanees) sector during 2011-12 to 2015-16 without adequate collateralisation. We observed that 32.75 *per cent* of the NPA amount related to units belonging to the Hotel sector which was affected adversely by closure of bar hotels by GoK in 2015. Since the collateral security furnished by these units was later found to be of negligible realisable value, the BoD of KFC decided (December 2015) to extend special package for clearance of their loan dues. Pre-dominance of a particular sector in the sanction of loans and non-ensuring adequate security at the time of loan disbursement led to the huge NPA percentage and subsequent ineligibility to accept public deposits. Compared to KFC's weighted average cost of borrowing of 10.31 *per cent* and 9.72 *per cent* respectively during 2014-15 and 2015-16, the standard rate of interest for term deposits (3 to 5 years' maturity) was 7.63 *per cent* only for the above period. Thus, the MSME sector lost the opportunity of obtaining finance at lower cost from KFC.

  GoK stated (March 2017) that the interest rates charged by KFC depended on its borrowing costs. It was also stated that KFC is adhering to the provisions of the SFC Act. The reply was not tenable as it did not address the specific issues pointed out by Audit.

Implementation of State schemes for financing MSMEs

2.1.9.2 The schemes implemented by the State Government/ PSUs for providing financial support by way of loans/subsidy to MSMEs are given in *Table 2.7*.

Table 2.7: Schemes for providing financial support to MSMEs

Scheme	Agency	Budget outlay for the scheme	Sanctioned amount (₹ in crore)	Number of MSMEs benefitted
KSEDM	KFC	Not Available	190.46	1,714
Interest Subvention Scheme	KFC	The financial commitment of the scheme was ₹300 crore for the two years 2013-14 and 2014-15.	6.64	8
Receivable Finance Scheme	KFC	Nil	Nil	Nil
Entrepreneur Support Scheme	DI&C	₹121.04 crore	114.56	3,352

Issues noticed in implementation of these financing schemes are discussed below:

Interest subvention scheme

2.1.9.3 Interest subvention scheme was introduced in 2013-14 to provide technological and financial support to youths from project report to production. Assistance was available in areas such as food processing, information technology, apparels, handicrafts, presentation articles, agro processing, fish processing and packaging based on innovative technologies developed by research institutions functioning under the auspices of Central and State Government in Kerala. Under the scheme, MSMEs were eligible for rebate on interest at the rate of 3 *per cent* for loans up to ₹1 crore and 2 *per cent* for loans above ₹1 crore. KFC was selected as the implementing agency. KFC proposed (January 2014) to disburse ₹300 crore during 2013-14 under the scheme. GoK provided ₹10.14 crore to KFC for implementing the scheme. As at 31 March 2016, KFC had disbursed a sum of ₹3.60 crore to eight MSMEs against the sanctioned amount of ₹6.64 crore.

We observed that no targets were fixed in respect of the number of units to be covered under the scheme. As a result, eight MSMEs engaged in one particular activity, viz., *neera*[11] extraction from coconut trees, only were extended the benefit of the scheme.

GoK replied (March 2017) that KFC could sanction loans under the scheme to only those units that had utilised technology developed by approved research institutions.

Implementation of Kerala State Entrepreneur Development Mission (KSEDM)

2.1.9.4 GoK introduced (December 2011) KSEDM with an outlay of ₹25 crore for the financial year 2011-12. KFC was the nodal agency for implementing KSEDM as well. KSEDM aimed at generating one lakh job opportunities and building entrepreneurship culture among the youth of the State by setting up 10,000 enterprises over five years. After selection of groups/ industries,

[11] A non-alcoholic, nutritious drink manufactured from the immature inflorescence of coconut tree.

entrepreneurship training was to be organised in collaboration with various training institutes like Entrepreneurship Development Institute, KITCO Limited[12], Rural Self Employment Training Institutes (set up by NABARD) and Centre for Management Development. Upon successful completion of training, groups/ individuals would be eligible for interest free loans up to 90 *per cent* of the total project cost subject to the ceiling of ₹20 lakh. Interest on the loans would be borne by the Government.

We noticed that:

- As of March 2016, achievement against the scheme was poor as only 1,714 units were financed out of the targeted 10,000 units. Direct employment generated was 8,500[13] against the target of 1 lakh employment opportunities.

  We also noticed that out of 1,714 financed units, 363 units (sanctioned ₹48.87 crore and disbursed ₹11.93 crore) were yet to commence commercial operation (March 2016).

- Interest burden incurred by KFC on loan disbursed to MSMEs under KSEDM up to 31 March 2016 was ₹24.70 crore. An amount of ₹15 crore only was received from GoK.

- A review of the arrear statement prepared by KFC revealed that as on 31 March 2016, 143 units had defaulted in repayment of loan amounting to ₹1.94 crore.

- According to Annexure III of the project report of KSEDM, stone crusher units were ineligible for loan assistance under the scheme. Further, as per the guidelines issued by the GoK for sanction of subsidy under the Entrepreneur Support Scheme, Metal Crushers including Granite Manufacturing units were ineligible for any financial assistance/ loan/ exemption/ subsidy from the State Government. Review of the KSEDM database revealed that ₹1.94 crore was disbursed to 19 units under the category 'stone crushing, non-metallic mineral products', which was irregular.

GoK stated (March 2017) that the response to the scheme was encouraging as demonstrated by the fact that 1,714 units availed of its benefits after it was introduced. The reply is not acceptable since the actual achievement was only 17 *per cent* of the target. Further, the assisted units included ineligible units as well.

Implementation of Receivable Finance Scheme

2.1.9.5 Board of Directors (BoD) of KFC approved (March 2014) introduction of a Receivable Finance Scheme intended to discount the bills of MSMEs supplying material to Public Sector Undertakings/ Government bodies. The

[12] Foremerly Kerala Industrial and Technical Consultancy Organisation Limited.
[13] 2012-13: 681, 2013-14: 1735, 2014-15: 2706, 2015-16: 3378.

scheme envisaged a maximum repayment period of 180 days and margin of 15 *per cent*. The scheme was intended to finance only sale of finished goods of MSMEs.

We observed that even though KFC had approached PSUs in the State for enrolling them in the scheme, the PSUs failed to respond due to which the scheme could not be implemented. We further observed that except Kerala Minerals and Metals Limited (KMML), none of the major PSUs in the State had complied with the statutory provision that the dues/ overdues to MSMEs for goods/ services supplied should be separately disclosed in the Annual Financial Statements.

GoK replied (March 2017) that the scheme did not take off because of lack of interest by the PSUs. It was also assured by the Government that PSUs were being advised to disclose the details regarding dues to MSMEs as required. The reply is not acceptable since GoK could have ensured the participation of PSUs under its administrative control in the scheme which was intended to benefit MSMEs in the State.

Implementation of Entrepreneur Support Scheme by DI&C

2.1.9.6 Besides KFC, DI&C was also financing nine[14] schemes of GoK since 1980 for the promotion and development of Small Scale Industries/ MSMEs. Replacing all the above schemes, a new scheme called Entrepreneur Support Scheme (ESS) was implemented from 1 April 2012 to provide one time investment subsidy up to ₹0.30 crore to MSMEs. Though DI&C was the implementing agency of ESS through its fourteen DICs, KFC and KSIDC could also recommend MSMEs financed by them for grant of ESS.

During the period 2012-13 to 2015-16, DI&C and the DICs disbursed assistance of ₹114.56 crore under ESS to 3,352 MSMEs. We reviewed the implementation of ESS in three[15] DICs and noticed that:

- Out of 51,708 MSMEs units registered in the State from 2012-13 to 2014-15, only 6.48 *per cent* availed financial assistance under ESS. The low percentage of utilisation of the scheme was primarily due to the fact that the scheme excluded from its purview MSMEs belonging to the service sector which constituted around 36 *per cent* of all MSMEs registered in the State during the period 2011-12 to 2015-16. During the Exit Conference, GoK stated that the complex documentation required for availing the scheme was one of the factors that led to low percentage of utilisation and that the same would be rectified as part of the 'Ease of doing business' initiative.

[14] Scheme for payment of grant under Women's Industries Programme (1980), Scheme for providing Margin Money Loan to SSI Units (1993), Scheme for providing Margin Money Loan to SSI Units promoted by Non-resident Keralites (1995), Scheme for providing State Investment Subsidy (2000), Scheme for subsidy under Technology Development Fund (2003), Scheme for reimbursement of One Time Guarantee Fee and Annual Service Fee remitted under CGTMSE (2011), Self Employment Scheme for Educated (2011), Women Industries Scheme (2011), Scheme for providing Turnover Subsidy to Micro, Small and Medium Enterprises engaged in the manufacture of Fruit and Vegetable based products (2011).

[15] Palakkad, Pathanamthitta and Kozhikode.

In its reply, GoK stated (March 2017) that a separate scheme for providing assistance to MSME units in the service sector was being formulated. It was also stated that the application filing was since made online to simplify the process.

- According to the Guidelines of ESS, entitlement under ESS shall be limited to ₹30 lakh per applicant, to be availed once. The upper limit of ₹30 lakh shall be enhanced by 5 *per cent* per annum during the period of operation of the scheme to address the escalation of costs. As such, the subsidy payable during 2012-13 to 2015-16 ranged between ₹30 lakh and ₹34.73 lakh[16].

  We, however, observed that while sanctioning the subsidy under ESS in the three test checked districts, the district centres had limited the maximum subsidy to ₹30 lakh even during 2013-14 to 2015-16. As a result of non-revision of maximum limit, there was short payment of ₹0.71 crore to 17 eligible MSMEs.

  DI&C replied (September 2016) that maximum limit was not enhanced due to budgetary constraints and limited number of applicants for assistance. The reply was not tenable as the enhancement of the maximum limit was mandatory as per the Guidelines of ESS and non-enhancement had the effect of depriving MSMEs of full quantum of eligible assistance. Further, the actual utilisation of budget allotment to DI&C was only 72.20 *per cent* during the period 2012-13 to 2015-16.

- M/s Agritex, Kanjikode, a partnership firm promoted by Sri. Kuriakose Philip and others, submitted an application for grant of investment support under ESS on 9 July 2013 claiming a total investment of ₹1.33 crore. The General Manager, DIC Palakkad recommended (October 2013) not to process the application due to the following reasons:

  i. the Partnership Deed produced by the firm mentioned that the firm was operating from SIDCO Industrial Park, Angamaly, but there was no mention of the factory at Kanjikode in the deed, and

  ii. the investment said to have been made in plant and machinery was made well before the firm had obtained the land and building.

  The District Level Committee (DLC), however, delegated (November 2013) a sub-committee to re-verify the matter. Based on the report of the sub-committee, the DLC decided to sanction investment support amounting to ₹30 lakh. The amount was disbursed on 20 March 2014.

  We observed that since the responsible officers of the DIC had already submitted their report pointing out that the machinery had no markings to prove the date of manufacture, decision of the DLC to send another

[16] ₹30 lakh increased by 5 *per cent* during 2013-14 (₹31.50 lakh), 2014-15 (₹33.08 lakh) and 2015-16 (₹34.73 lakh).

team of officers to conduct physical verification of the plant and machinery was irregular and amounted to extending undue favour to the firm. It was also not clear how on a subsequent visit by the sub-committee, the markings had inexplicably appeared. The defects pointed out by the DIC such as the bank loan having been drawn much before the land allotment, the fact of bills having been issued prior to 19 January 2012, the age of the machinery, etc., were not explained by the sub-committee.

Thus, sanction and disbursement of subsidy to M/s Agritex was irregular and inadmissible and the members of the DLC did not exercise due diligence in carrying out the duty entrusted to them.

GoK in its reply (March 2017) stated that the matter was being inquired into and assured that suitable remedial action would be taken on the basis of the inquiry.

- The ESS Guidelines issued by GoK specified that MSMEs engaged in manufacturing activities shall alone be eligible for ESS assistance. We conducted a joint inspection (24 August 2016) along with Industrial Extension Officer (DIC, Kozhikode) in the premises of industrial units and noticed that subsidy of ₹0.40 crore was paid to four non-manufacturing units which were functioning on job-work basis.

Recommendation No. 2: ***Financing schemes need to be implemented more effectively and efficiently to reach out to more MSMEs. The ESS and the KSEDM need to be strengthened to provide assistance to all eligible MSMEs.***

Infrastructure Development

2.1.10 As per the Industrial and Commercial Policy 2007, availability of infrastructure facilities, such as roads, built up space, power, water, security, etc., has been identified as one of the factors affecting growth of MSME sector. Creation of new infrastructure and strengthening of existing infrastructure was, therefore, necessary for the growth of the MSME sector in Kerala. DI&C, SIDCO, KINFRA and KSIDC were tasked with the creation of infrastructure in Kerala. These agencies implemented plan schemes of GoK and schemes sanctioned by GoI under Additional/ Special Central Assistance and Cluster Development Programme. We examined the implementation of these schemes and noticed delays and improper execution as discussed in the succeeding paragraphs.

Construction of multi-storeyed industrial estates

2.1.10.1 In order to overcome the shortage of land required for industrial units, a scheme for constructing multi-storeyed industrial estates which would provide built up space to industrial units is being implemented by the DI&C. Details of sanctioned projects and status of their implementation are summarised in *Table* 2.8.

Table 2.8: Status of implementation of multi-storeyed industrial estates as on 31 March 2016

Sl. No.	Location	Area/ Units	Estimated cost (₹ crore)	Date of sanction	Target date of completion	Actual expenditure (₹ in crore)	Current status	Delay as of March 2016
1	Edayar, Ernakulam.	85 Cents/ 15 Units	4.50	17/02/2010	October 2011	6.50	Completed (January 2016)	4 years 4 months
2	Puzhakkalpa dam, Thrissur	75,000 sq.ft/ 50 Units	15.00	19/07/2010	July 2015	10.00	Work in progress	8 months
3	Kochuveli, Thiruvanan-thapuram	40,000 sq.ft	10.00	18/10/2012	February 2015	Nil	Not Commenced	1 year and 1 month
4	Puthussery, Palakkad.	33,000 sq.ft/ 22 Units	7.50	25/07/2012	January 2015	Nil	Not Commenced	1 year and 3 months
5	Manjeri, Malappuram	60 Cents/45 Units	3.00	23/07/2012	August 2014	1.95	Work in progress	1 year and 7 months

As evident from the above *Table*, only one out of the five projects was completed and that too with a delay of four years and four months. The delay in completion in respect of the four incomplete projects ranged from one year and two months to four years. The DI&C had neither ascertained the reasons for the delay in completion of the projects nor taken action to speed up the execution. We observed the following:

- There was extra expenditure of ₹2 crore due to extra works directly attributable to the delay in execution of Edayar, Ernakulam project. Even though the scheme was proposed to be implemented utilising Additional Central Assistance from Government of India, the entire expenditure was met by GoK. The reason for non-availing of Additional Central Assistance was not on record.

- Project initiation for Kochuveli project was done on the basis of the order of the Hon'ble High Court to resume possession of 141.545 cents of land out of 270.325 cents allotted to a defunct company on hire purchase basis and to issue title for remaining 128.78 cents in favour of the official liquidator. Though the project was initiated and ₹10 crore released (February 2013) to SIDCO, the implementing agency, the DI&C did not take up the possession of the land as permitted by the Court but filed an appeal demanding release of the entire land which was pending. This resulted in blocking up of funds.

  In reply, the GoK stated (March 2017) that the litigation had since been cleared and the entire land was in the possession of the DI&C. It was also stated that the work had been re-allotted to another agency. The fact remains that releasing of funds without ensuring the availability of land had resulted in blocking up of funds.

- We further observed that 636 MSMEs were waiting for allotment of land/ sheds in 14 Districts as of 31 March 2016. Thus, delay in completion of multi-storeyed industrial estates affected the functioning of these MSMEs.

GoK (March 2017) admitted that the operational problems in SIDCO, to whom all the above works were assigned, had affected the execution of the works. It was also stated that in all cases where SIDCO had not started the work, other agencies had been assigned the work.

Implementation of Cluster Development Programme

2.1.10.2 Ministry of MSME, GoI has adopted cluster development approach as a key strategy for enhancing productivity and competitiveness as well as capacity building of Micro and Small Enterprises (MSEs) and their clusters[17] in the country. In October 2007, the erstwhile 'Small Industries Cluster Development Programme' was renamed as 'Micro and Small Enterprises – Cluster Development Programme (MSE-CDP)'. Integrated Infrastructural Development Scheme was also subsumed in MSE-CDP for providing developed sites to new enterprises and upgradation of existing industrial infrastructure.

GoI sanctioned (July 2010-October 2015) seven MSE-CDPs to Kerala. Kerala Bureau of Industrial Promotion (KBIP), an autonomous body under the Industries Department, GoK was the implementing agency of the Programme. As per the guidelines of the scheme, the projects were to be completed within two years of sanction. 70 *per cent* of the project cost would be financed through grant of GoI, minimum 10 *per cent* of the project cost by the beneficiary MSMEs and balance by GoK. Details of implementation of the Programme in the State are tabulated in *Table 2.9.*

Table 2.9: Status of implementation of MSE-CDP

(Amount in ₹ crore)

Sl. No.	Name of project under MSE-CDP	Month of sanction	Sanct-ioned cost	Contribution			Expenditure till date (March 2016)	Status as on 31 March 2016
				GoI	GoK	Cons-ortium		
1	Wood Processing Cluster Kollam	January 2011	2.60	1.82	0.52	0.26	1.67	Not completed
2	Furniture Cluster, Kannur	August 2012	11.65	8.12	2.35	1.18	3.86	
3	North Malabar Offset Printers Cluster, Kannur	May 2013	12.22	8.55	2.44	1.22	Nil	
4	Zamorins Furniture Cluster, Kozhikode	March 2014[18]	14.35	9.00	2.87	2.47	Nil	
5	Pala Ethnic Food Cluster, Kottayam	July 2010	3.98	2.78	0.80	0.40	Nil	
6	Furniture Cluster, Chevoor, Thrissur	October 2015	14.45	10.02	2.89	1.54	Nil	
7	Agriculture Implements Cluster, Shornur, Palakkad	September 2013	5.37	3.67	1.07	0.63	Nil	
	Total		**64.62**	**43.96**	**12.94**	**7.70**	**5.53**	

[17] **Collectives of MSMEs with similar nature of activities and sharing common infrastructure facilities and technology.**
[18] **Revised approval. Original approval was in September 2013.**

We noticed that:

- Against the total sanctioned project cost of ₹64.62 crore for seven Common Facility Centres (CFC), MSE-CDP the total financial progress achieved was 8.56 *per cent* (₹5.53 crore) only up to March 2016.
- In case of Agriculture Implements Cluster, Shornur, the contribution of ₹1.07 crore released to KBIP by GoK was refunded (March 2016) since the project did not take off due to interim stay on its implementation granted by the Hon'ble High Court of Kerala in December 2014. Stay Order was granted in a Writ Petition filed by Kerala Forging Products Manufacturers Association alleging that the DIC Palakkad had changed the original proposal i.e., to revive a defunct CFC owned by the Palakkad Municipality was ignored, and a new diagnostic study commissioned by KBIP was used as the basis for setting up a new CFC without utilising the existing one. We observed that KBIP or GoK did not get the stay vacated or furnish replies to the allegations raised in the petition so far (June 2016).

  GoK stated (March 2017) that the projects at serial numbers 5 and 7 had since been cancelled by GoI. It was also stated that the delay in completion of the projects was because they were dependent on contribution by the beneficiaries. GoK also assured that the projects were being regularly monitored by the DI&C. The reply is not acceptable since two projects were cancelled by GoI due to delays, resulting in loss of Central Assistance to the tune of ₹6.45 crore. Further, the contention of GoK that completion of the project was dependent on contribution by the beneficiaries was not acceptable because the beneficiary share was only 10 *per cent* of the sanctioned cost.

Establishment of infrastructure by PSUs for MSMEs

2.1.10.3 KINFRA, KSIDC and SIDCO are engaged in creation of infrastructure for the promotion of industries in Kerala. These PSUs have, accordingly, been developing Industrial Parks/ Townships/ Zones, Industrial Growth Centres and Industrial Estates respectively. The details of the Industrial Estates/ Parks, etc., maintained by the above PSUs as at 31 March 2016 are given in *Table 2.10*.

Table 2.10: Details of Industrial Estates/ Parks, *etc.*, maintained by PSUs

Sl. No.	Agency	Industrial Parks/ Estates, etc. (Number)	Area acquired	Allottable area	Area Allotted	Units established (Number)
			(Acre)			
1	SIDCO	60	324.28	262.63	253.33	1,367
2	KSIDC	7	1,305.81	973.78	575.64	83
3	KINFRA	21	1,804.17	1,489.36	884.24	638
Total		**88**	**3,434.26**	**2,725.77**	**1,713.21**	**2,088**

Allotment of area in Industrial Estates/ Parks, etc., maintained by the PSUs was only 62.85 *per cent* of the total allottable area. We reviewed the activities of these PSUs on promotion of MSMEs and findings are reported below.

- According to the Project Implementation Manual of GoI, implementation of projects should be preceded by feasibility studies to ensure that the project was conceptually sound in terms of economic benefits as well as financial returns.

  KINFRA decided (July 2010) to establish rural apparel parks in different panchayaths of the State to promote small/ micro/ medium garment industries, thereby creating employment in rural areas. For this purpose, GoK allotted (November 2010) 2.02 acres of land on 30 year-lease to KINFRA to set up a rural apparel park at Rajakumari, Idukki. The rural apparel park with an estimated cost of ₹4.99 crore aimed to provide employment to 1,200 rural women. The work was completed in January 2012 at a total cost of ₹7.35 crore including additional work. The space in the park was, however, not hired by entrepreneurs till date (January 2017).

  We observed that the management had failed to identify takers for the Park due to the remoteness of the location and logistic costs. Thus, the primary purpose for which the land was allotted i.e., employment generation was not fulfilled as the feasibility of the park was not adequately ascertained.

  GoK stated (March 2017) that the facility was set up in Idukki as the locality was a catchment area where apparel units sourced labour. However, units could not be established so far and KINFRA was continuing their efforts for utilisation of the building. The fact, however, remains that the entire facility is lying unutilised and KINFRA/ GoK should have identified prospective entrepreneurs for the project before committing resources to it.

- KINFRA set up (June 2006) an Agro Food Business Incubation Centre at KINFRA Food Processing Park, Kakkancherry with technical consultancy from Defence Food Research Laboratory (DFRL) at a cost of ₹0.79 crore. The facilities at the centre included production line for retort packing[19] for ready-to-eat foods and convenience foods. As the Food Business Incubation Centre was set up with the help of DFRL, DFRL engaged FICCI[20] for technology transfer to the operating agency. FICCI demanded ₹0.03 crore as onetime fee and annual royalty of two *per cent* on net domestic sales or five *per cent* on the net export sales.

  The operating agency, Inkal Ventures Private Limited (Inkal) informed (August 2015) KINFRA its inability to operate the Business Incubation

[19] Retort packing is a type of food packaging made from a laminate of flexible plastic and metal foils.
[20] The Federation of Indian Chambers of Commerce and Industry.

Centre as they failed to identify entrepreneurs willing to utilise the Business Incubation Centre.

We observed that the project report submitted in September 2002 did not contain any record relating to feasibility studies to determine the viability of the project. The Food Business Incubation Centre constructed during June 2006 at a cost of ₹0.79 crore has remained idle for the past 10 years.

KINFRA in their reply (November 2016) admitted that it had not conducted any feasibility study since the concept of food incubation parks was an emerging technology. KINFRA further stated that the prospective investors had backed out due to the global economic recession and the project had not taken off due to the poor marketing efforts by the selected operating agency. KINFRA also assured that all efforts were being made to ensure the viability of the project.

GoK endorsed (March 2017) KINFRA's views and further stated that since the Business Incubation Centre dealt with emerging technology, developing sufficient business to sustain its operations would require time.

- KINFRA Food Processing Park, Adoor envisaged allotment of developed land to 16 units. Effluent Treatment Plant (ETP) of 225 m^3/day capacity was necessary to neutralise effluents emitted by these units. Individual units were to perform preliminary treatment and KINFRA was to conduct secondary treatment of the effluents in the park. KINFRA awarded (May 2012) the work of 'Design, Supply, Construction, Erection and Commissioning of ETP including operation and maintenance of the plant for three years to Aqua Designs India Private Limited, Chennai at a lump sum contract value of ₹1.99 crore. The scheduled completion time was six months (December 2012).

  Due to delay in cutting and removing trees, the site could be handed over to the contractor only on 10 September 2012. Further, clearance from Kerala State Pollution Control Board (KSPCB) was not obtained to establish the plant. Hence, time extension was granted up to November 2013. The work is yet to be completed (November 2016) due to labour problems and defaults on the part of the contractor.

  GoK in its reply (March 2017) stated that the work was still progressing and the delays after the extension period were due to labour issues and defaults on the part of contractor. Further, none of the MSME units was affected on account of the non-commissioning of the ETP facility. The reply is not acceptable since one unit is still to get the clearance from KSPCB and two units had installed ETP at their own cost to get the clearance.

- KSIDC developed three Industrial Growth Centres (IGCs) at Kinalur (Kozhikode District), Baliyavelichom (Kannur District) and Cherthala (Alappuzha District) at a total cost of ₹138.25 crore, using the funds provided under the erstwhile Industrial Growth Centre Scheme of the GoI (₹28.27 crore) and grants from GoK (₹109.98 crore). The details of land acquired and allotment of land to units were as given in *Table 2.11*.

Table 2.11: Details of allotment of land in IGCs

IGC	Land acquired	Land allottable (a)	Land allotted (b)	Balance unallotted land (a-b)	No. of Units
	(Acre)				
Kozhikode	310.72	256.17	101.64	154.53	65
Cherthala	278.79	224.72	161.12	63.60	43
Kannur	250.00	218.00	59.76	158.24	42
Total	**839.51**	**698.89**	**322.52**	**376.37**	**150**

It can be seen from the above *Table* that out of 698.89 acres of land available in the IGCs, the extent of land actually utilised was only 322.52 acres, i.e., 46.15 *per cent*. Considering the fact that non-availability of land is the primary constraint hindering industrial development in Kerala, the inability of KSIDC to attract industrial units to the IGCs was inexplicable.

- As per the provisions of the Licence Agreement executed between KSIDC and the allottees, allottees should complete the construction of building and commence commercial operation within two years or extension thereof. Otherwise, KSIDC would revoke the Licence Agreement and resume the allotted land.

We noticed that out of the 150 units that have been allotted land in the three IGCs, 37 units which were allotted 34.22 acres of land failed to commence commercial production within two years. The delay ranged from 10 months to 7 years. KSIDC, however, had not evicted these allottees so far (December 2016). Thus, the actual utilisation of developed land in the IGCs was only 41.25 *per cent* (288.30 out of 698.89 acres).

Transfer of allotted land

2.1.10.4 Outright Purchase Rules (1996) of SIDCO provided (Rule 16 (b)) for transfer of shed/ land after remitting the difference between the current fair value and value already remitted to SIDCO. SIDCO relaxed (November 2009) the rule by allowing transfer without remitting the differential amount. This relaxation paved way for large scale transfer of land/ shed as mentioned in the Audit Report of the Comptroller & Auditor General of India (PSUs-Kerala-2011-12)[21]. Despite the above having been brought to the notice of SIDCO/GoK/ Legislative Assembly, we observed that during the period

[21] **Paragraph 4.4.**

2011-12 to 2015-16, 12.50 acres of land (83 cases) in nine Industrial Estates of SIDCO were allowed to be transferred to third parties. The assessable value of the land so transferred was ₹15.30 crore as worked out by us based on the latest value reported by the Revenue Department.

We also observed that:

- in two cases (land value: ₹0.10 crore) irregular transfer effected by the original allottee was regularised by SIDCO and in two other cases (land value: ₹0.20 crore), transfer was allowed by the original allottees after being served eviction notice for keeping the units inactive, which was in violation of SIDCO's own rules.
- During joint inspection of nine Industrial Estates, six Mini Industrial Estates (MIE) and two Industrial parks of SIDCO, we further noticed that 37 units which were allotted land/sheds in the IEs/ MIEs/ IPs were not functioning/ had not started functioning. SIDCO had not taken effective steps to evict the non-functional units and allot the land/ sheds to new applicants.

  GoK stated (March 2017) that action was underway for evicting idling units.

Modernisation of existing infrastructure

2.1.10.5 Modernisation of existing infrastructure was necessary for the enhancement of overall competitiveness of the industries in the industrial estates by bridging critical physical infrastructure gaps. Details of Development Areas (DAs)/ Industrial Development Plots (DPs), Industrial Growth centres and industrial estates under the control of various agencies of GoK were as given in *Table 2.12*.

Table 2.12: Details of DA/ DP/ Mini Industrial Estates

Agency of GoK	No. of DA/ DP/ MIEs	Land Area (acres)		No. of Industrial units
		Acquired	Allotted	
DI&C	126	2,515.45	1,995.00	2,881
KSIDC	7	1,305.81	575.64	83
SIDCO	60	324.28	253.33	1,367
KINFRA	21	1,804.172	884.243	638
Total	**214**	**5,949.712**	**3,708.213**	**4,969**

We noticed following deficiencies in the modernisation process:

- The DI&C directed (May-November 2012) KBIP to prepare and submit Detailed Project Reports (DPR) for the modernisation of the DAs and DPs including construction of compound walls, maintenance/ repairing/ re-tarring of all internal roads, construction of drainage, providing water supply and street lights, etc. Accordingly, KBIP prepared DPR for modernisation of DAs at Veli (Thiruvananthapuram) Kanjikode (Palakkad) and DP at Poovanthuruthu (Kottayam). DPR was submitted to GoK for matching contribution and thereafter, to GoI for consideration and approval under MSE-CDP scheme. KBIP submitted (November 2013) another proposal for preparing DPRs for the remaining 35 DA/ DPs at a total cost of ₹1.05 crore (₹3 lakh per DA/ DP).

GoK sanctioned (February 2014) ₹18 lakh for the DPR preparation of six DA/ DPs (₹3 lakh per DA/DP). So far, DPRs for 9 DA/ DPs have been prepared as per which the total project cost would be ₹88.35 crore and in principle approval for three DPRs (total project cost- ₹30 crore) received from Ministry of MSME. Remaining DPRs were under consideration of Ministry of MSME.

GoK had earmarked an amount of ₹5 crore as token provision for up-gradation and modernisation of existing DA/ DPs under DI&C for the year 2014-15. No amount, however, was utilised so far (June 2016).

Promotion of start-ups

2.1.11 Kerala Technology Start-up Policy, 2014 envisaged to make Kerala the number one destination in India for start-ups, attract ₹5,000 crore into the incubation and start-up eco systems in Kerala and establish at least 10 technology business incubators/ accelerators in each of the different sectors in the State. As per the policy, the State Government was to set up technology incubation facilities in all the industrial parks and SME clusters. All the incentives available to MSMEs would be made available to start-ups also.

We, however, observed that technology incubation facilities had not been provided in any of the Industrial Parks/ Areas under DI&C, SIDCO, KINFRA and KSIDC. None of the start-ups that had come up in the two Start-up Villages established by Kerala Start-up Mission, availed of financial assistance under schemes for MSMEs such as ESS or KSEDM.

Recommendation No. 3: ***Development of infrastructure schemes should be completed in time to bridge gaps in the available developed land/ space. Modernisation of existing parks/ industrial estates should be undertaken immediately as many of them are in dilapidated condition. Infrastructure scheme should be taken up only after conducting feasibility studies.***

Marketing Support

2.1.12 MSMEs face several constraints in marketing and Government agencies are expected to play the role of a facilitator to help the MSME sector in this area. Issues noticed in marketing assistance provided by GoK are discussed in the following paragraphs.

Public Procurement Policy for MSMEs

2.1.12.1 GoK adopted (September 2013) Public Procurement Policy for MSMEs notified by GoI and made it mandatory on the part of State PSUs/

Departments/ Government agencies, etc., to set an annual goal of procuring minimum 20 *per cent* of their annual value of goods or services from MSMEs working within the State, in a period of two years with effect from 2013-14. From April 2015, overall procurement goal of 20 *per cent* was made mandatory. The Stores Purchase Manual (SPM) of the State Government was also amended to incorporate the above condition.

We observed that compliance with the Public Procurement Policy was not being monitored by the DI&C, which was the Nodal Agency for implementation of the Policy. Quantum of purchase made by State PSUs/ Departments/ Government agencies, etc., from MSMEs was not available with the DI&C. Therefore, we collected information from 15 PSUs/ Autonomous Bodies/ Departments of GoK and noticed that statutory provision regarding purchase of 20 *per cent* of requirement from MSMEs was not being complied with by any State PSUs/ Departments/ Government agencies, etc.

We also noticed that GoK, while adopting the Public Procurement Policy 2012 did not include provision on publication of annual requirement of material in advance which would have been of immense use to the MSMEs in the State for planning their production/ marketing strategy.

GoK replied (March 2017) that State PSUs/Departments/Government agencies had since been directed to follow the guidelines for procurement from MSMEs as laid down in the SPM. It was also assured that the DI&C had since been instructed to effectively monitor the implementation of public procurement policy.

Organisation of exhibitions and fairs for the promotion of MSMEs

2.1.12.2 KBIP entrusted with the task of conceiving and implementing promotional activities for the MSMEs in the State, was to organise promotional events of the DI&C. This included Business to Business Meets, Workshops, Seminars, Training Programmes, holding proactive discussions with entrepreneurs and organising facilitation meetings for them with the policy makers of the State.

A review of the exhibitions and fairs organised by KBIP for the promotion of MSMEs during the period 2011-12 to 2015-16 revealed the following:

During the period 2011-12 to 2015-16, KBIP organised/ participated in 43 exhibitions/ fairs incurring expenditure of ₹5.59 crore. The events ranged from Dubai Shopping Festival to Kerala Bamboo Fest. The primary objective behind organising/ participating in industrial exhibitions/ fairs was to benefit MSME units by enabling them to improve their market, acquiring new technology, etc.

We observed that KBIP had not put in place a system for verifying the benefits accruing from such participation. In the absence of quantitative details, the effectiveness of the expenditure incurred out of Government funds for the above activities could not be assessed.

Since GoK, through KBIP, was bearing substantial portion of the expenditure incurred for participating in/ organising the fairs/ exhibitions, a transparent procedure was needed for selecting the MSMEs for participating in the events. We, however, observed that the selection of participants was being done in an arbitrary manner without any criteria.

We also observed that the contracts for event management in respect of the events organised directly by KBIP and for setting up stalls/ display, etc., in respect of events organised by other agencies were being awarded without observing the provisions of the Stores Purchase Manual of the State Government. The contracts for works costing ₹3.63 crore were awarded on the basis of limited quotations instead of competitive tenders.

GoK in its reply (March 2017) assured that the effectiveness of facilitating the participation of MSMEs in exhibitions/fairs would be assessed through obtaining feedback.

Marketing Support to MSMEs by SIDCO

2.1.12.3 One of the primary objectives of SIDCO was to provide assistance to SSI/ MSME units to market their products. In order to achieve this objective, GoK permitted the Government Departments/ PSUs/ other Government agencies to procure their requirements directly from SIDCO without observing the procedure prescribed in the Stores Purchase Manual/ Rules of GoK. The Marketing Division of SIDCO, in turn, empanelled 846 MSMEs for procuring products on behalf of Government Departments/ PSUs/ other Government agencies.

We observed that:

- Stores Purchase Manual/ Rules of GoK, applicable to SIDCO, required procurement of products from the MSMEs in a transparent manner, according equal opportunity to all sellers.

  A review of the purchases effected by SIDCO during 2011-12 to 2015-16 revealed that out of the 64,145 Purchase Orders (PO) issued, 26,090 POs i.e., 40.67 *per cent* were placed on 50 firms representing 5.91 *per cent* of the total empanelled MSMEs. Similarly, out of the total order value of ₹477.94 crore, these 50 firms bagged orders worth ₹200.39 crore (41.93 *per cent* of the total purchase). Purchase orders were issued to these 50 firms without inviting tenders from among empanelled MSMEs.

- As per the conditions prescribed by SIDCO, only manufacturing units were eligible for registration under marketing support scheme.

  We, however, observed that 23 out of the above 50 firms were not manufacturers of the products supplied by them as evidenced by cross verification of the records at the Commercial Taxes Department, GoK. Details of the top five firms are given in *Table 2.13*.

Table 2.13: Details of procurement of SIDCO from five firms

Sl. No.	Name of firm	Location (Products)	No. of Orders	Amount (₹crore)
1	M S Communications	Karunagappally (Electrical Goods, Recharge Coupons for mobile phones)	313	11.55
2	Vishnu Steel & Wood Industries	Kollam (Mattress, Furniture, Pillows)	1,619	10.40
3	Sonet Enterprises	Kalpetta (Hearing Aids, Furniture)	332	8.77
4	Pranavam Agencies	Kollam (Furniture, Computer Systems)	1,864	8.76
5	Steel Vin Industries	Thrissur (Furniture, Weighing Machines)	2,010	7.16
Total			**6,138**	**46.64**

- SIDCO issued all POs on the basis of quotations irrespective of the purchase value and tendering process was not followed. As such, the benefit of the Government Order conferring special status on SIDCO for supply of goods and services to Government Departments/ PSUs, etc., was passed on only to a few MSMEs.

  GoK accepted (March 2017) the audit observations and stated that the procedures were by-passed due to the challenges faced by SIDCO in terms of management capabilities and availability of staff. It was also assured that corrective measures had since been initiated.

Recommendation No. 4: ***GoK may put in place an efficient mechanism for providing marketing support to eligible MSMEs through strict enforcement of Public Procurement Policy.***

Facilitation Services

Clearances under Single Window Scheme

2.1.13 For speedy issue of various licences, clearances and certificates required for setting up of industrial undertakings in the State, Kerala Industrial Single Window Clearance Boards and Industrial Township Area Development Act, 1999 (SWCB Act) was enacted. As per the provisions of the Act, for setting up small scale industrial undertakings with capital investment of more than ₹2 lakh in each district of the State, GoK constituted District Single Window Clearance Boards (DSWCB) in each district. The Collector of the district was the Chairman of the DSWCB while the General Manager, DIC was the Convener. The DSWCB also included representatives from all departments/ agencies involved in issuing clearances/ permits for establishment/ operation of industrial units.

We examined applications received under the Single Window Clearance (SWC) Scheme in Palakkad, Pathanamthitta and Kozhikode districts and observed that out of 252 applications processed during the period 2011-12 to 2015-16 by the three DSWCBs, only 16 were cleared within the stipulated period of 60 days. In respect of processing the remaining 236 applications, there was delay up to 1 year in 178 cases, 1 to 3 years in 47 cases and above 3 years in 11 cases. We noticed that the inordinate delays were mainly due to:

i. Local Self Government Institutions (LSGIs) not issuing the requisite consents (consent to establish, building permit, etc.) in time, even for units located in industrial areas.

ii. DSWCBs meeting infrequently, resulting in piling up of applications. The number of meetings held by the three DSWCBs during the period from 2011-12 to 2015-16 was as given in *Table 2.14.*

Table 2.14: Details of meetings held by three DSWCBs

District	No. of meetings held					
	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Palakkad	3	3	5	3	5	19
Pathanamthitta	2	3	2	2	0	9
Kozhikode	1	3	3	4	3	14

iii. The DSWCBs not exercising the authority conferred on them by the SWCB Act, 1999 to issue deemed clearances if the agencies concerned were unduly delaying their consent.

The DI&C stated in its reply (September 2016) that the delays in issue of clearances under Single Window Scheme were mainly due to the delay on the part of KSPCB[22] which insisted that the application should be uploaded directly in their Website. Similarly, the officials of DIC who conducted preliminary appraisal of applications lacked knowledge of rules of other Departments. Obtaining clearance from the Fire & Rescue Services Department was a complicated process and consumed a lot of time, even for Units which posed no fire hazard. The Town Planning Department accepted applications attested by the LSGIs only. LSGIs took a lot of time to process applications as the Secretaries were not exercising the powers delegated to them and all applications were referred to the LSGI Boards which meet infrequently.

GoK in its reply (March 2017) assured that the Single Window Scheme was being reviewed and rules were being amended to ensure that statutory clearances are given in a time bound and transparent manner.

Performance of MSMEs in the State

2.1.14 Monitoring the functioning of MSMEs by collecting and compiling data on actual quantity of goods/ services produced, profit/ loss, financial health, etc., was essential for assessing the performance of the sector and providing assistance/ initiating remedial measures. GoK and its agencies such as DI&C, KSIDC, KINFRA, SIDCO, etc., did not, however, put in place a system for collecting, compiling and analysing data on the functioning of MSMEs in the State except in case of units availing assistance under specific schemes. In the absence of this, GoK was making policy decisions on the basis of MSME Census conducted by GoI in 2006-07.

[22] **Kerala State Pollution Control Board.**

We, however, examined performance of MSMEs in parks developed by KINFRA and noticed the following issues:

- The KINFRA Integrated Industrial Textile Park (KIITP), Kanjikode, Palakkad was established by KINFRA on 100 acres of land at a cost of ₹30 crore. 89 industrial units were allotted plots in the Park from 2011 onwards. As per the schedule of the projects, the units coming up in the Park were to be allotted power by January 2012. Power was, however, made available to the units only by September 2013. The delay in providing power was due to refusal of Kerala State Electricity Board Limited (KSEBL) to supply power to Kinesco Power and Utilities Limited (Kinesco), a joint venture set up by KINFRA and National Thermal Power Corporation Limited.

  We observed that out of the 89 units that had been allotted plots in the Park, 28 Units with a total projected investment of ₹66.32 crore and employment potential for 1,047 persons, could not commence activities and had, therefore, abandoned the projects. Even the units that had commenced production did so using DG sets till KSEBL agreed to supply power and had to incur heavy losses on that account.

  The failure of the above units to commence business was directly due to KSEBL's refusal to supply power to Kinesco at the same rate at which it was supplying power to other licensees in the State. This was violative of GoK's policy that MSME units should be promoted.

  GoK stated (March 2017) that the issues had since been resolved and power is now being supplied to the units located in the Park by KSEBL/Kinesco. The fact, however, remains that 28 units could not commence activities as envisaged due to the failure of GoK in coordinating the activities of various Departments/agencies under it.

Findings of beneficiary survey

2.1.15 We conducted a survey of 194 MSMEs[23] in the State to assess how they rated the various facilities provided by Government/Government agencies to promote and develop MSMEs in the State. The responses obtained were analysed and the major findings are given below:

- 64 *per cent* of the respondents were not aided by the Single Window mechanism set up by the State Government for commencement/ registration of new units.
- Technical assistance such as assistance in preparing project report, etc., was not provided by the State Government to 54 *per cent* of the units.
- Training in skill development/entrepreneurship was not provided by the State Government in the case of 65 *per cent* of the MSMEs.
- While 48 *per cent* of the units surveyed faced financial crisis at one time or the other, the State Government did not provide any financial

[23] **Chosen at random from the units located at IEs/MIEs of SIDCO, DAs/DPs of DI&C and IGCs of KSIDC.**

help to them to tide over the crisis.

- Government did not provide quality raw material to 51 *per cent* of the units.
- Marketing assistance was not provided to 80 *per cent* of the MSMEs.
- Financial assistance was not provided to 53 *per cent* of the units.
- The rating of infrastructure provided in the industrial areas developed and maintained by Government/Government agencies was as shown in *Table 2.15*.

Table 2.15: Rating of infrastructure provided in the industrial areas

Facility	Rating (Percentage of MSMEs)			
	Inadequate	Satisfactory	Good	Did not respond
Built up space	31	38	5	26
Power	35	50	4	11
Water	40	40	6	14
Roads	56	21	11	12
Security	55	27	6	12

As can be observed from the above, majority of the respondents were not satisfied with the infrastructure provided in case of roads and security arrangements.

SIDCO stated (December 2016) that it was not in a position to undertake maintenance of infrastructure in its IEs, etc., due to lack of funding by GoK.

GoK, in its reply (March 2017) assured that SIDCO would initiate action to improve the infrastructure in the IEs/IPs/MIEs.

Conclusion

- **The industrial policy of the State Government with regard to promotion and development of MSMEs contained only general objectives and specific schemes were not included in the policy to achieve the major objectives.**

- **The growth in number of new MSMEs was lower than the neighbouring States and the all India average.**

- **Government schemes for development of industrial infrastructure were not implemented optimally resulting in poor quality of infrastructure in industrial areas.**

- **The Kerala Financial Corporation, which is the only agency under the Government of Kerala providing finance to MSMEs failed in substantially fulfilling its mandate.**

- **The MSMEs were not provided adequate marketing support.**

2.2 Procurement and marketing of vegetables and fruits in the State by Kerala State Horticultural Products Development Corporation Limited

Executive Summary

Introduction

Kerala State Horticultural Products Development Corporation Limited (Company) was incorporated in March 1989 as a fully owned State Government company with the main objective to organise vegetable, fruit and flower growers and to provide them with all supplies and services to augment their income base by increased productivity and value addition through an integrated system of production, procurement, grading, storage, processing, marketing and exporting of horticultural products.

Procurement activities

During 2011-12 to 2015-16, the Company procured vegetables and fruits ranging between 4,000 metric tonne (MT) and 18,000 MT from within the State. This accounted for around two per cent of the total vegetables produced in Kerala during 2011-12 to 2015-16.

Instead of procuring directly from farmers, world markets under the control of Department of Agriculture, etc., as envisaged, the Company made 75.47 per cent purchases valuing ₹53.74 crore from traders/ middlemen during 2014-15 to 2015-16. Selection of traders was not through transparent process. Though the Company had empanelled nine suppliers, purchases amounting to ₹30.86 crore and ₹22.88 crore in 2014-15 and 2015-16 respectively were made from the non-empanelled suppliers in the five District Procurement Centres selected by Audit.

Non-procurement of vegetables from three districts

The Company did not have centres for procurement of vegetables in Malappuram, Wayanad and Kasargod districts. As a result, vegetables produced by farmers in these three districts were not procured by the Company. During the period from 2012-13 to 2014-15, these districts had produced 3.11 lakh MT of vegetables which accounted for 18.23 per cent of the total vegetable production in the State.

Remunerative prices to farmers

Farmers did not receive remunerative prices for their produce. There was undue delay in settlement of farmers' bills.

Quality of vegetables and fruits

Even though a major chunk of the procurement of vegetables and fruits was from the neighbouring States, the Company failed to ensure quality of vegetables purchased.

The lab test conducted by the Food Safety Commissioner of GoK on the samples selected from the Company revealed that some of the vegetables supplied by the Company were unsafe to eat. Quality checking conducted at the instance of Audit also revealed presence of pesticide residues in vegetables beyond permissible limits.

Absence of consistent marketing policy

The Company did not have a consistent procurement/ marketing policy. The purchase and selling prices were fixed arbitrarily.

Subsidy sale during festive seasons

The Company did not comply with the directions of the Government of Kerala (GoK) with regard to the fixation of selling price during subsidy period and made incorrect subsidy claim with the GoK.

Regional imbalances in sales outlets

Sales outlets of the Company were established without considering the regional balances and 79 per cent of the sales outlets were in seven districts in southern part of the State, thereby majority of the people were deprived of the benefits of low or subsidised price offered by the Company.

Introduction

2.2.1 Department of Agriculture, Government of Kerala (GoK) analysed the problems associated with the development of fruits and vegetables and ascertained that these were caused by the non-availability of good quality seeds and planting materials, lack of processing facilities to absorb seasonal surplus of fruits and vegetables and lack of efficient marketing system to ensure a larger share of the consumer's rupee to the producer. In order to address this, Kerala State Horticultural Products Development Corporation Limited (Company) was incorporated in March 1989 as a fully owned State Government company with the aim to organise vegetable, fruit and flower growers and to provide them with all supplies and services to augment their income base by increased productivity and value addition through an integrated system of production, procurement, grading, storage, processing, marketing and exporting of horticultural products. The activities of the Company include procurement of vegetables and fruits from farmers and distributing them to the public at discounted rates below the market price through retail outlets located in different parts of the State.

Organisational set-up

2.2.2 The registered office of the Company is located in Thiruvananthapuram. The Company has eleven District Procurement Centres (DPCs) in Thiruvananthapuram, Kollam, Kottayam, Ernakulam, Kannur, Kozhikode, Alappuzha, Pathanamthitta, Thrissur, Palakkad and Idukki districts; three Sub Regional Procurement Centres at Haripad, Chadayamangalam and Poojapura; one Beekeeping Consortium and Training Centre at Mavelikkara and one Strawberry Processing Centre at Munnar. The Company operates 77 own and 293 licensed stalls.

Audit Objectives

2.2.3 The main objectives of the Performance Audit were to ascertain whether**:**

- The Company was able to procure horticultural products from farmers to the extent envisaged and ensure remunerative prices to them; and

- Marketing of horticultural products of the farmers in the State was carried out economically and efficiently.

Audit Criteria

2.2.4 The following criteria were adopted:

- Guidelines, norms/ policies prescribed by GoK/Company;
- Cold Chain Scheme of the Company;
- Government Orders;
- Agreements/contracts with franchisees/ farmers' associations;
- Minutes of the Board meetings; and
- Agricultural Development Policy-2015 of Government of Kerala.
- Weekly price trend reports of AGMARKNET[24].

Scope of Audit and Audit methodology

2.2.5 The Performance Audit covered the activities of the Company during the period 2011-12 to 2015-16 in respect of procurement and distribution of vegetables and fruits. The methodology adopted for attaining the Audit Objectives with reference to the Audit Criteria was review of files/records maintained by the Company/ Department of Agriculture in six selected districts viz., Thiruvananthapuram, Kollam, Kottayam, Idukki, Malappuram and Palakkad. We also conducted joint surveys with 46 farmers/ farmers' associations, Secretaries of five world markets[25] and 30 licensed stalls.

The Audit Objectives, Audit Criteria and scope of the Performance Audit were discussed with the Management and Government in an Entry Conference held on 06 May 2016. The audit was conducted during June 2016 to September 2016.

Audit findings were issued to Management/ Government on 04 November 2016. Audit findings were also discussed with Department of Agriculture, GoK and Management of the Company in an Exit Conference held on 23 November 2016. Their replies and views have been given due consideration while finalising the report.

Audit Findings

2.2.6 Audit findings on procurement and marketing of vegetables and fruits by the Company are discussed below:

Procurement of vegetables and fruits

2.2.7 One of the main objectives of the Company is to provide a marketing avenue to the farmers of the State. Details of production of vegetables in the State and procurement by the Company during the last five years ended 2015-16 were as given in *Table 2.16.*

[24]An e-governance portal by National Informatics Centre which facilitates web-based information flow of daily arrivals and prices of commodities in the agricultural produce markets.
[25] Urban/ Rural Agriculture World Markets.

Table 2.16: Details of production of vegetables in the State *vis-a-vis* procurement by the Company

Year	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Production of vegetables in the State (Lakh MTs)	5.55	5.51	5.57	5.98	6.28	28.89
Procurement by the Company from within the State (Lakh MTs)	0.04	0.06	0.18	0.12	0.09	0.49
Percentage of procurement to total production	0.72	1.09	3.23	2.01	1.43	1.70

Source: Data furnished by Directorate of Agriculture and the Company.

As evident from the above table, procurement of vegetables by the Company from the farmers of the State hovered around a meagre two *per cent* of the total production. This was mainly due to lack of coordination among different Government agencies, inconsistent procurement policy, etc., as discussed in the succeeding paragraphs.

Lack of planning

2.2.7.1 Effective procurement demands preparation of realistic targets considering the quantity of vegetables and fruits anticipated to be produced in the State. Targets for procurement should be backed by financial budgets/ working capital assessment.

We observed that the Company did not set any targets for procurement of vegetables and fruits by the DPCs during 2011-12 to 2015-16. Financial budgets/ working capital requirement were also not prepared/ assessed during the above period. In the absence of targets and budgets, the Company procured vegetables and fruits on routine and *ad hoc* basis. The value of procurement declined sharply by 32.64 *per cent* in 2015-16 as compared to 2014-15 as given in *Table 2.17* due to working capital constraints.

Table 2.17: Value of procurement of vegetables and fruits by the Company

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Value of procurement (₹ in crore)	13.85	37.62	76.17	77.12	51.95
Increase / (decrease) over previous year (₹ in crore)	...	23.77	38.55	0.95	(25.17)
Percentage of increase/ (decrease) over previous year	…	171.62	102.47	1.25	(32.64)

Accepting the audit observation, GoK replied (January 2017) that the Company had decided to fix targets for all DPCs with respect to procurement of vegetables and fruits from 2017-18 onwards.

Recommendation No. 1: *The Company may prepare a realistic financial budget to ascertain the working capital requirements for procurement, based on the harvest schedule.*

Lack of coordination among various agencies

2.2.7.2 The Company is the sole Public Sector Undertaking (PSU) for marketing of vegetables and fruits in the State. It is dependent on Government agencies like Department of Agriculture, Vegetables and Fruits Promotion Council Keralam[26] (VFPCK) and State Horticulture Mission (SHM) for procurement because these agencies oversee the cultivation of vegetables and fruits in the State. Therefore, coordination among these agencies was essential for maximum procurement by the Company.

We, however, noticed lack of coordination in the following cases leading to non-procurement of fruits and vegetables by the Company:

- GoK directed (November 2001)[27] the Company to establish procurement centres at block level to procure vegetables directly from farmers/ farmers' self help groups at reasonable rates. Department of Agriculture of GoK was to coordinate the activities in order to bring the vegetables to the procurement centres. In order to review and monitor the activities of the Company and the Department of Agriculture and to make these activities more efficient, GoK decided to constitute a review committee in each district consisting of the Deputy Director and Assistant Director (Marketing) of Department of Agriculture and the Regional Manager of the Company.

  We observed that the review committee was not constituted in any of the districts selected for audit even though the review committee was to be constituted in each district.

- GoK sanctioned (June 2008) 1,000 Organic Vegetable Village Programme by coordinating the activities of Department of Agriculture, SHM, VFPCK, Kerala Agricultural University, voluntary organisations, Grama Panchayats, Kudumbashree[28], educational institutions, Self Help Groups, etc. The Company was identified as the most significant agency which was supposed to participate in the programme by procuring and marketing the vegetables produced under the programme.

  During 2010-11, GoK sanctioned (Mach 2010) ₹5 crore under Haritha Vipananam Project (HVP) to the Company for procurement of vegetables produced under the 1,000 Organic Vegetable Village Programme. As per HVP, Grama Panchayaths should formulate the production programme with the technical assistance of the Department of Agriculture. The Agricultural Officer of Department of Agriculture should prepare the harvest schedule for each Grama Panchayat and intimate the same to the Company and Regional Manager of the DPCs concerned. The Regional Manager, in turn, should prepare a procurement schedule for each Grama Panchayat and vegetables should be procured from the pooling centres. The quantity available

[26] A company registered under Section 25 of the Companies Act, 1956.
[27] G.O. (M.S) No.227/2001/Agriculture dated 05/11/2001.
[28]Kudumbashree is a poverty eradication and women empowerment programme implemented by State Poverty Eradiction Mission of GoK..

and required at each DPC should be intimated to the head office three days in advance and the surplus quantity should be transported to the place of demand.

We observed that the Company diverted the amount sanctioned under HVP for working capital due to financial crisis. Further, Agriculture Officers of Department of Agriculture did not intimate the harvest schedule to the Company. Ultimately, the Company did not utilise these funds for the intended purpose.

GoK accepted the audit observation about lack of coordination among various agencies involved in the production and marketing of vegetables in the State. GoK also stated that the Company would take steps for preparing crop calendar for vegetables with the support of Agriculture Department. This would help to fulfil the objectives of the Company in a better manner.

Recommendation No. 2: ***There should be close coordination among the Company, Department of Agriculture, VFPCK, SHM, etc., for more efficient procurement of vegetables and fruits from the farmers.***

Non-assignment of specific role to the Company

2.2.7.3 The Vegetable Development Programme (VDP) implemented (2012-13 onwards) by the Directorate of Agriculture aimed at increasing production of vegetables in the State. The VDP did not envisage any marketing assistance and hence, overlooked the role of procurement by the Company.

The Agriculture Development Policy of Kerala, 2015, also did not assign any role to the Company in the development or marketing of agricultural products, even though it was the only PSU in the State involved in these activities. The annual plans formulated by the Department of Agriculture for promoting agricultural production during the audit period also ignored the aspect of procurement and marketing of vegetables and fruits by the Company.

Thus, GoK did not give due importance to the procurement and marketing of vegetables by the Company. As a result, vegetable growers of the State did not get desired marketing assistance from the Company. No specific reply was received from GoK in this regard.

Absence of DPCs in three districts

2.2.7.4 The Company did not have DPCs in three districts, viz., Malappuram, Wayanad and Kasargod. Malappuram was the third highest producer of vegetables in the State. Details of production of vegetables in these three districts during the period from 2012-13 to 2014-15 were as given in *Table 2.18.*

Table-2.18:Production of vegetables in Malappuram, Wayanad and Kasaragod

Sl. No.	District	Production (MT)	Procurement (MT)
1	Malappuram	1,98,478	Nil
2	Wayanad	66,555	Nil
3	Kasargod	46,299	Nil
	Total	**3,11,332**	Nil

Source: Data furnished by Directorate of Agriculture and the Company.

In the absence of DPCs, the Company did not procure vegetables from these districts. In order to assess how the farmers marketed the vegetables produced by them in the absence of marketing assistance from the Company, we conducted a joint survey in 5 out of 21 clusters[29] and 4 out of 18 Swasraya Karshaka Samithis[30] (SKS) in Malappuram along with the officials of the Department of Agriculture. The representatives of all five clusters and four SKS responded that their products were sold to traders at low rates in the absence of procurement by the Company.

Since the Company did not have procurement centres in these districts, the Company could not make any impact on marketing of 3.11 lakh MT vegetables produced by farmers in these three districts, which accounted for 18.23 *per cent* of the total vegetable production in the State during the period from 2012-13 to 2014-15.

Accepting the audit observation, GoK replied (January 2017) that the Company had opened a new DPC at Wayanad in November 2016 and was planning to open new DPCs in Malappuram and Kasargod districts.

Procurement of bulk quantity of vegetables from traders

2.2.7.5 Agricultural Department, GoK operates District Procurement Centres/ wholesale markets/ Urban/ Rural Agriculture World Markets (UAWMs and RAWMs). These markets were developed by GoK with the support of European Economic Committee to provide better marketing opportunities to farmers by promoting direct marketing through auction. The Government ordered (March 2012) that the Company should participate in wholesale markets of Agriculture Department for ensuring remunerative price to the farmers who bring their produce to these markets. The details of procurement of vegetables and fruits by the Company from DPCs of GoK/ UAWMs and RAWMs, traders/ middlemen and farmers in the five districts selected for audit are shown in *Table 2.19.*

Table 2.19: Details of procurement of vegetables by five DPCs of the Company

Year	Total	Traders/ Middlemen	Farmers (including procurement from world markets and VFPCK)
	(Figures ₹ in crore)		
2014-15	42.64	30.86	11.78
2015-16	28.57	22.88	5.69
Total	**71.21**	**53.74**	**17.47**

As could be seen from the *Table*, bulk of the procurement during 2014-15 and 2015-16 was from the traders/ middlemen (75.47 *per cent*) while procurement from farmers was only 24.53 *per cent* during this period. Though the GoK directed the Company to participate in the auctions held in the world markets, participation of the Company was not satisfactory as reported (October 2013) by the Director of Agriculture to GoK. Further, it was also stated that non-participation, irregular and delayed participation by the Company in the

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[29]**Association of farmers.**
[30]**A self-help group of farmers.**

auctions had resulted in collusion of traders to lower the price causing loss to the farmers.

We noticed that the procurement from traders/ middlemen was due to absence of a consistent procurement policy as discussed below:

- The Company had formulated (March 1993) a Haritha Marketing Strategy which was never implemented. Subsequently, a new Cold Chain Scheme was proposed. According to this scheme approved (July 1997) by GoK, procurement of fruits and vegetables was to be made from the collection centres of VFPCK[31] and distribution was to be done through sale outlets of the Company. As it was impossible to meet the entire requirements of vegetables from within the State in the first phase, procurement on a daily basis was proposed from outside the State through agents as well. A new procurement policy was again adopted (July 2006) under the Central Scheme of Operation revamping the Cold Chain Scheme. Further in January 2008, a new Centralised purchase policy for procurement from primary source viz. directly from farmers, farmers' groups, Government agencies like VFPCK and farmers' markets was envisaged. Agents/ suppliers were not to be engaged on any account. However, Board of Directors (BoD) of the Company (December 2010) decided to purchase vegetables from wholesale agents at Thirunelveli[32] or Chalai, Thiruvananthapuram. It was also suggested by the BoD to constitute a purchase committee to oversee the purchase of vegetables from the panel of suppliers. Finally, in a meeting of suppliers with the Managing Director (May 2013), it was decided that purchases would be made only from the panel consisting of nine suppliers which was formed after giving wide publicity through newspaper advertisements.

  We observed that the decision of the Company to procure from traders was against the main objective of the Company, viz., augmentation of income base of the farmers by increased productivity and value addition through an integrated system of production, procurement, grading, storage, processing and marketing of horticultural products.

  Thus, absence of a consistent policy to procure vegetables and fruits from farmers/ farmers' groups resulted in non-procurement of vegetables at source from farmers and consequent bulk purchase of vegetables from traders, etc.

  Accepting the audit observation that the Company had no procurement policy, GoK replied (January 2017) that a procurement policy would be formulated soon.

- Though the Company decided to procure vegetables and fruits from a panel of nine suppliers, purchases amounting to ₹30.86 crore and ₹22.88 crore respectively for two years 2014-15 and 2015-16 were

[31] Erstwhile Kerala Horticultural Development Programme.
[32] A district in Tamil Nadu.

made from non-empanelled suppliers in five selected DPCs *(**Appendix 6**)*. For instance, DPC Thiruvananthapuram had purchased items worth ₹4.34 crore (21.34 *per cent*) in 2014-15 and ₹4.93 crore (37.32 *per cent*) in 2015-16 from a single non-empanelled supplier. Similarly, in DPC Kottayam, 77.90 *per cent* of the total purchases for the year 2014-15 and 74.71 *per cent* for the year 2015-16 were made from a single non-empanelled supplier. No records were maintained at the DPCs to verify that the suppliers were selected through a transparent process and had quoted the lowest rates.

GoK replied (January 2017) that it would issue directions to the Company regarding purchase, price fixation, etc. in respect of purchases from traders.

Recommendation No. 3: ***Direct procurement from farmers should be encouraged. Clear-cut procurement policy emphasising procurement of vegetables and fruits from farmers/ farmers' markets like UAWM/ RAWM should be formulated at the earliest.***

Recommendation No. 4: ***When procurement from traders is inevitable, the same should be done through a transparent process.***

Delay in payment to farmers

2.2.7.6 GoK directed (September 2010)[33] that payments to the farmers should be made immediately on procurement of vegetables. In order to make payments to the farmers on the very same day of auction in UAWMs and RAWMs, GoK sanctioned (September 2010) ₹0.50 crore to the Company to set up a revolving fund. Further, the Company received ₹0.50 crore in March 2012 from GoK to settle all the pending payments to farmers in UAWMs and RAWMs.

We noticed that:

- no revolving fund was created by the Company to make payments to the farmers on time.
- there were delays ranging from four months to three years in effecting payments to the farmers as shown in *Table 2.20*.

[33] **GO (Rt) No.1643/19/AD dated 14/09/2010.**

Table 2.20: Details of pending payment to the farmers

Name of the Unit	Location	Amount due (₹ in lakh)	Due as at the end of:	Range of delay up to:
World market	Anayara	24.97	April 2016	5 months
	Nedumangad	25.98	April 2016	5 months
DPC under the Department of Agriculture	Thodupuzha	12.74	July 2016	3 years
VFPCK	Thiruvananthapuram	6.71	July 2016	4 months
	Kozhikode	0.69	July 2016	4 months
Sheethakala Pachakari Vipanana Sangham (SPVS)	Kanthalloor	1.05	July 2016	4 months
	Vattavada	7.56	July 2016	1 year
Total		**79.70**		

The Director of Agriculture reported (October 2013) to GoK that undue delay by the Company in making payment for the produce procured during auction in the UAWMs and RAWMs had caused great resentment among farmers forcing them to sell their produce elsewhere at a loss. Delay in payment was confirmed by the Secretaries of the world markets as well as the farmers who were interviewed by Audit. Due to delay in payments coupled with lack of active participation by the Company in world markets as discussed in *Paragraph 2.2.7.5*, the quantity of vegetables brought for auction by the farmers to the world markets and vegetables offered to the Company by SPVS had reduced drastically as shown in *Table 2.21*.

Table 2.21: Quantity of vegetables brought by farmers to world markets and offered by SPVS to the Company

Year	Quantity of vegetables brought by farmers to world markets (MT)	Quantity of vegetables offered by SPVS and procured by the Company (MT)
2013-14	2,833	1,077.11
2014-15	2,717	724.23
2015-16	1,886	547.24

Accepting the audit observation, GoK replied (January 2017) that the Company had since cleared 99 *per cent* of the dues and it had also been decided to open a revolving fund for procurement from farmers.

Absence of ancillary facilities for processing

2.2.8 In order to provide ancillary facilities for the processing and marketing of horticultural produces and their derivatives as envisaged in the objectives of the Company, a Strawberry Processing Unit was set up (February 2014) at Munnar with the financial assistance of State Horticulture Mission (SHM). The Strawberry Processing Unit costing ₹75 lakh was set up specifically for safeguarding the interest of farmers of Idukki district involved in the cultivation of strawberry.

The project proposal envisaged a yield of 1,250 MT of strawberry fruits per year in Idukki district. SHM supplied 8,33,001 strawberry runners[34] to the

[34]Strawberry runner is a shoot, branch, or twig springing from the root. Most of the commonly cultivated varieties of strawberry plants will produce "runners" as a means of propagating themselves.

farmers during 2014-15 to achieve the targeted yield.

We, however, noticed that the Company could procure only 1,035 kg of strawberry during 2014-15. The unit was not operated further due to non-availability of strawberry for processing in 2015-16 as the Company did not coordinate with SHM to ensure that strawberry runners were provided to the farmers for cultivation in time. Thus, the investment of ₹75 lakh became infructuous due to idling of the unit.

GoK replied (January 2017) that the Company would take efforts to make the Strawberry Processing Unit a viable one from 2017-18 onwards.

Non-utilisation of storage facilities

2.2.9 In order to achieve an annual procurement/ sales target of one lakh MT of vegetables, the Company proposed and GoK approved (July 1997) implementation of a Cold Chain Scheme comprising establishment of nine cold storages, 140 vegetable super markets, 500 mini vegetable stores, nine refrigerated trucks and six air conditioned sales units. Out of various schemes envisaged under Cold Chain Scheme, the Company constructed (January 2001) two cold storages at Munnar (Idukki) and Eruthiampathy (Palakkad) at a cost of ₹61.22 lakh.

We observed that both cold storages remained idle due to defects in construction like variation in temperature of cold storage from one portion to another, high electricity charges/ cost of operation, exorbitant cost of transportation, etc. The construction was carried out without proper feasibility study. These issues were highlighted in the C&AG's Audit Report (Commercial), 2004, Government of Kerala. Based on the findings in the Audit Report, Committee on Public Undertakings had directed (February 2009) the Company to take action against the erring officials of the Company. Action was, however, yet to be taken (March 2017).

Non-implementation of Cold Chain Scheme led to non-procurement of one lakh MT vegetables as envisaged in the project proposal and wasteful expenditure of ₹61.22 lakh.

Marketing of vegetables and fruits

2.2.10 One of the main activities of the Company is to provide vegetables and fruits to the public at reasonable prices. The Company sells vegetables and fruits procured from farmers and traders through its 408 sales outlets[35] (77 own stalls, 293 licensed stalls and 38 own mobile vans) under the DPCs. Details of procurement and marketing of vegetables and fruits by the Company during the five year period ending 2015-16 were as given in *Table 2.22.*

[35] Position as on 31 March 2016.

Table 2.22: Year-wise value of procurement and sales by the Company

Year	Procurement	Sales
	(Value ₹ in crore[36])	
2011-12	13.85	16.75
2012-13	37.62	35.09
2013-14	76.16	83.63
2014-15	77.12	81.39
2015-16	51.95	64.93

We examined the marketing activities of the Company and noticed that the Company failed to provide vegetables and fruits at reasonable price to the public due to absence of balanced marketing outlets, improper pricing, failure to pass on the subsidy to consumers, poor performance of sales outlets, loss due to excessive damage of vegetables, etc. Vegetables and fruits were not subjected to laboratory analysis periodically to ensure quality. These are discussed in succeeding paragraphs.

Regional imbalances in marketing outlets

2.2.10.1 For ensuring supply of vegetables to all the people of the State, sales outlets should be located uniformly throughout the State. It was, however, observed that 79.17 *per cent* (323) of the sales outlets were located in seven districts in the southern part of the State whereas only 20.83 *per cent* (85) sales outlets were located in four districts in the north (Kannur, Kozhikode, Thrissur and Palakkad). The remaining three northern districts viz., Malappuram, Wayanad and Kasargod did not have any outlets as on 31 March 2016. Further, 30.64 *per cent* of the outlets (125) were under DPC Thiruvananthapuram as depicted in *Table 2.23.*

Table 2.23: Details of district wise sales outlets *vis-a-vis* population.

Sl. No.	Name of the district	Sales Outlets		Population	
		Numbers	Percentage	Population (in lakh)	Percentage
1	Thiruvananthapuram	125	30.64	33.07	9.90
2	Kollam	47	11.52	26.30	7.88
3	Pathanamthitta	14	3.43	11.96	3.58
4	Alappuzha	53	12.99	21.22	6.36
5	Kottayam	57	13.97	19.79	5.93
6	Idukki	6	1.47	11.07	3.32
7	Ernakulam	21	5.15	32.80	9.82
8	Thrissur	7	1.72	31.10	9.31
9	Palakkad	6	1.47	28.11	8.42
10	Malappuram	0	0	41.11	12.31
11	Kozhikode	49	12.01	30.90	9.25
12	Wayanad	0	0	8.17	2.45
13	Kannur	23	5.63	25.26	7.57
14	Kasargod	0	0	13.03	3.90
Total		**408**	**100**	**333.89**	**100**

It can be seen from the above *Table* that the number of outlets in the districts were not commensurate with the population of the respective districts. Though

[36] **Figures from 2012-13 onwards based on the provisional accounts.**

Malappuram is the most populated district in the State, there was no sales outlet of the Company in the district. Thiruvananthapuram accounted for only 9.90 *per cent* of total population, but 30.64 *per cent* of the total sales outlets were functioning there.

Accepting the audit observation, GoK replied that (January 2017) the Company had decided to start new outlets throughout the State to reduce the regional imbalance in the marketing outlets.

Absence of uniform pricing policy

2.2.10.2 An efficient marketing system is vital for ensuring the twin objectives of remunerative prices to farmers and reasonable prices to consumers. As per the Cold Chain Scheme, the selling price of vegetables and fruits are to be fixed at 30 *per cent* above the procurement price. The Managing Director (March 2016) confirmed that 30 *per cent* was added to cover handling charges like loading, unloading, damage, manpower cost, transportation, small margin, etc.

We noticed that the Company did not follow a consistent policy for fixing of selling price of vegetables and fruits. There was lack of uniformity in fixation of selling price and each DPC earned different percentage of margin. Vegetables were supplied at the godown of each DPC at a rate which was inclusive of transportation cost. As such, the percentage of margin adopted by all DPCs should be the same. Some of the instances where the same items were sold at different rates adding varied margin on the same date are given in *Table 2.24.*

Table 2.24: Details of sale of same item at different margins

Date	22/08/2015			26/08/2015		
Item	Ladies finger			Onion		
District	Procure-ment price/ kg (₹)	Selling price/ kg (₹)	Percentage of margin	Procure-ment price/ kg (₹)	Selling price/ kg (₹)	Percentage of margin
Thiruvananthapuram	6.60	16.00	142.42	67.00	65.00	(-) 2.99
Kollam	7.50	16.00	113.33	59.40	64.00	7.74
Kottayam	13.00	15.00	15.38	63.00	62.00	(-) 1.59
Palakkad	10.00	12.00	20.00	68.00	60.00	(-) 11.76
Idukki	12.00	20.00	66.67	32.00	65.00	103.13

Accepting the audit observation, GoK agreed (January 2017) that a market intelligence system would be set up for fixing fair price of vegetables and fruits.

Fixation of higher prices for inter district sale

2.2.10.3 According to the Cold Chain Scheme, retail selling price of the Company would be fixed at 10 *per cent* less than the average retail selling price prevailing in the market. The procurement price will be 30 *per cent* less than the retail price fixed as above.

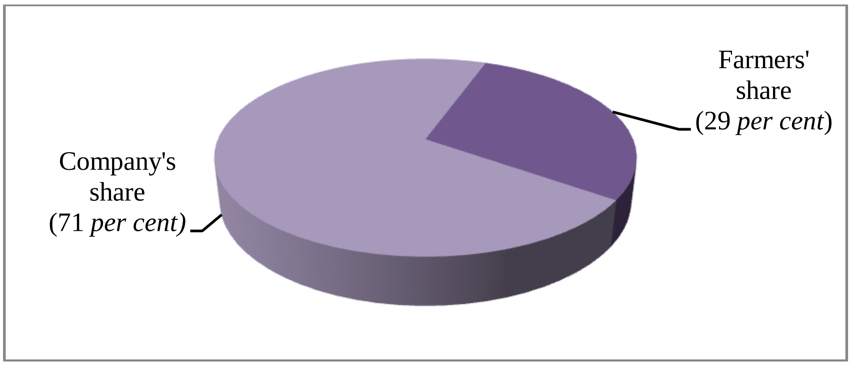
The Company opened DPC at Palakkad in April 2013 and at Idukki (Munnar) in February 2014. Procurement of vegetables from farmers by these two DPCs, distribution of the same to DPC Thiruvananthapuram and corresponding sales by this DPC through its sales outlets for a period of one month (July 2016) was reviewed by Audit.

We noticed that these DPCs accounted for transfer of the procured items to DPC Thiruvananthapuram as sales by adding a margin to the procurement price. DPC Thiruvananthapuram in turn accounted for the same as purchases and ultimately sold them to the public by adding its own margin. The Company was permitted to add a margin of 30 *per cent* only to cover handling charges like loading, unloading, damage, manpower cost, transportation, small margin, etc. As against this, it earned an overall margin varying from 50.77 *per cent* to 241.11 *per cent* ***(Appendix 7)***.

We also noticed that the farmers were not paid remunerative price as illustrated below:

- On 25 July 2016, the AGMARKNET price at Palakkad for padavalam[37] was ₹18/kg. According to the Cold Chain Scheme, the Company was to procure padavalam at ₹11.34/kg[38]. The Company, however, procured 2,240 kg of padavalam from Palakkad district (on 25 July 2016) at ₹9/kg. Thus, the farmers were denied remunerative price. Palakkad DPC distributed padavalam to DPC Thiruvananthapuram at ₹12.50/kg, taking a margin of ₹3.5/kg and this was finally sold by DPC Thiruvananthapuram for ₹30.70/kg adding a further profit of ₹18.20/kg. Ultimately, the Company earned a profit of 241.11 *per cent* in this transaction whereas the farmer received only 29 paise of each rupee paid by the consumer as shown in *Chart 2.1*:

Chart 2.1: Share received by the farmers from each rupee paid by the consumer in the illustrative case.



GoK accepted (January 2017) the audit observations and agreed to give suitable directions to the Company to treat inter DPC transfers as stock transfer and not as sales. GoK also stated that the system of adding abnormal margin as pointed out by Audit would be avoided in future.

[37]**Snake gourd.**
[38]**AGMARKNET price -₹18/kg less 10 *per cent* (₹1.80/kg) = ₹16.20/kg less 30 *per cent* (₹4.86/kg) = ₹11.34/kg.**

Failure to pass on the subsidy to consumers and irregular claim of subsidy from GoK

2.2.10.4 During festive seasons, GoK intervenes in the market through the Company with the objective of stabilising the prices of vegetables and fruits. According to the directions of GoK, the Company was to sell vegetables at 30 *per cent* subsidy during the festive season (subsidy period). The GoK gives necessary subsidy to the Company every year for making good the loss incurred on account of subsidised sales to the public. During the period 2011-12 to 2015-16, GoK allotted ₹44.61 crore to the Company towards market intervention activities.

On a review of the market intervention activities in five DPCs during the Onam season, 2015-16 (17/08/2015 to 27/08/2015), we noticed that:

- While fixing the selling price in four DPCs during the above festive season, the Company did not adhere to the directions of the GoK on fixation of selling price. In 167 out of 176 cases verified, the Company fixed selling price without reducing 30 *per cent* from the prevailing market price.

  The Regional Managers of the DPCs concerned replied that the selling prices were fixed below the local market rates during the subsidy period. The reply was factually incorrect as the local market rates in the website of (AGMARKNET) Government of India were less than the rates adopted by the Company. We also noticed that the Company did not have a system or defined guidelines to assess the market rate.

- The Company was eligible to receive subsidy on sale of vegetables at prices lower than the market price. Even though the Company did not sell vegetables at subsidised rate during the above festive season, the Company claimed subsidy from Government by reckoning wrong market price for the vegetables sold.

  We compared the market rate reckoned by the Company for claiming subsidy for six vegetables during this period with their maximum retail price (MRP) in the website of (AGMARKNET) Government of India. On comparison of the prices of these items for 11 days individually, we observed that the market rates reckoned by the Company for claiming subsidy were higher than the MRP published in AGMARKNET in 138 out of 176 cases as shown in *Table 2.25.*

Table 2.25: Instances where non-compliance of directions of GoK in fixing selling price and reckoning of market rates in excess of AGMARKNET price.

Sl. No.	Name of the DPC	Total number of cases reviewed	Number of cases where selling price exceeded the price to be fixed as per directions of GoK	Number of cases where the market price reckoned for claiming subsidy was higher than AGMARKNET rate
1	Thiruvananthapuram	54	52	49
2	Kollam	48	46	42
3	Kottayam	24	23	24
4	Palakkad	50	46	23
	Total	**176**	**167**	**138**

The Government in its reply (January 2017) confirmed that, for controlling price hike in open market during festive seasons, it gives directions to the Company to sell the items below the market price. Further, as no hard and fast rule regarding subsidy was in existence, GoK directed the Company to furnish necessary proposals for taking further action.

The reply was not acceptable as the intention of providing subsidy was to compensate any loss incurred by the Company due to price stabilisation activities during festive seasons. Further, we noticed that the Company was making abnormal profit during subsidy period and preferring incorrect claim for subsidy with the Government.

Recommendation No. 5: ***A marketing policy which prescribes the method of fixation of selling price should be adopted and it should be ensured that this policy is strictly followed by the Regional Managers while fixing selling price. The Company should pass on the benefit of subsidy received from the Government to the public.***

Inefficient operation of sales outlets

2.2.10.5 The Company markets its products through its own stalls and licensed stalls. As on 31 March 2016, the Company had 293 licensed and 77 own stalls in the State. The position of stalls during the last five years (2011-12 to 2015-16) is given in *Table 2.26.*

Table 2.26: Position of licensed and own stalls

Year	Licensed stalls	Own stalls
	(Number)	
2011-12	73	42
2012-13	115	72
2013-14	309	85
2014-15	365	79
2015-16	293	77

Performance of the licensed stalls and own stalls is discussed below:

- The licensed stalls are working on the basis of a written agreement entered into with the Company. The agreement stipulated that (a) In case the licensee takes supply of vegetables for less than 20 days or for less than ₹3,000 per day, ₹50 per supply will be recovered from the licensee as service charge and the total of the above amount will be debited from the licensee's account at the end of each month, (b) The licensee shall not display, advertise or sell any items other than those supplied by the Company for sale through the retail stall except with the written permission of the Company, (c) All sales shall be made at the price fixed by the Company and intimated to the licensee from time to time and licensee will maintain proper accounts. Price list should be exhibited compulsorily; and (d) The stalls shall be compulsorily kept open from 7 am to 7 pm every day.

We observed that only 46 out of 144 licensed stalls (March 2016) in three DPCs (Thiruvananthapuram, Kollam, Kottayam) had lifted vegetables for 20 days or more per month. We examined the reasons for poor lifting of vegetables by conducting a joint physical verification with the officials of the Company in 30 out of 144 stalls functioning under these DPCs. Result of joint physical verification was as discussed in *Table 2.27*.

Table 2.27: Details of result of joint physical verification

Sl. No.	Observation	Conclusion
1	73.33 *per cent* (22 stalls) licensees replied that the Company was not able to supply items in time. Supply was normally provided only after 11 am.	Failure to supply in time adversely affects fresh supply of vegetables to the public. During the survey, it was revealed that 19 stalls (63.33 *per cent*) procured items from open market. Sale of items procured from open market under the brand name of the Company would adversely affect the goodwill of the Company, as the quality of these items cannot be ensured. Selling with the Company caption ("Safe to eat vegetables procured from farmers of Kerala is available here") is also tantamount to deceiving the general public.
2	25 stalls (83.33 *per cent*) did not exhibit the selling price on the price board.	Collection of excess price from consumers cannot be ruled out as the consumers are unaware of the daily price.

- For own stalls, the Company fixed (July 2015) sales target of minimum ₹5,000 per day per employee. It was also decided to close its own stalls, which failed to meet the target.

On a review of sales made by Company's own stalls in the selected DPCs for the month of March 2016, we observed that the daily target was ₹6 lakh per day (120 staff in 42 own stalls), while the average actual achievement was only ₹3.22 lakh i.e., a shortfall of 46.33 *per cent*. Further, 33 out of 42 stalls did not achieve the target of minimum ₹5,000 per day per employee. While 80 *per cent* of stalls in DPC Kottayam and 10 *per cent* of stalls in DPC Kollam achieved the target, none of the stalls in other three DPCs achieved the target.

We noticed that 17 own stalls of DPC Thiruvananthapuram were concentrated in 4 Panchayaths and in Corporation area while there was no own stall in the remaining 79 Panchayaths in the district which may also have contributed to the poor performance of its own stalls.

Regarding poor performance of licensed stalls, GoK replied (January 2017) that it was planning to convene a meeting with the licensees to formulate a policy for upgrading the performance of the licensed outlets and to cut down non-profitable ones. However, GoK did not give any reasons for the poor performance of Company's own stalls.

Availability of quality vegetables at reasonable price to the general public in the State could not be ensured by the Company due to inefficient monitoring of licensed stalls and own stalls.

Recommendation No.6: ***Specific targets should be fixed for both own and licensed stalls and their performance should be closely monitored.***

Loss due to excessive damage of vegetables

2.2.11 Vegetables and fruits are prone to damage during transportation and storage at DPCs and sale in licensed stalls and own stalls. As per Cold Chain Scheme, eight *per cent* average weight loss was permissible during transportation and storage. The Company, however, had not fixed any limit of permissible damage for vegetables and fruits during various stages of procurement and sales.

We noticed that:

- The Company did not have a uniform policy for controlling and minimising damage in the sales outlets. The licensed stalls were allowed damage up to two *per cent* of the gross value of vegetables supplied to them. However, no such limits were prescribed for its own stalls. Only DPC Thiruvananthapuram had fixed five *per cent* ceiling as permissible damage for its own stalls.
- Scrutiny of the procurement and sales of 21 vegetables/ fruits at DPCs in Thiruvananthapuram, Kollam and Kottayam for 2014-15 and 2015-16 revealed that the damage in excess of eight *per cent* allowable weight loss on transportation and storage was ₹3.49 crore. Major reason for excess damage was purchase (13,980 MT[39]) in excess of the indented quantity (11,138 MT). Further, the Company did not have adequate marketing outlets for selling and storage facilities for storing the vegetables procured in excess of indented quantity.

  Excess damage was also noticed in respect of items which are not quickly perishable like banana, ginger, drumstick and onion for the same period as shown in *Table 2.28.*

[39]Indented quantity in respect of DPC Kottayam was not available. Hence, figures of DPCs Thiruvananthapuram and Kollam were taken.

Table 2.28: Details of percentage of damage on selected items

Sl. No.	Item	Total procurement during 2014-16 (in MT)	Total damage during 2014-16 (in MT)	Percentage of damage
1	Banana	2059	360	17.48
2	Ginger	341	65	19.06
3	Drumstick	374	63	16.84
4	Onion (small)	847	136	16.06

- The DPCs failed to monitor the damage at its own stalls and no recovery was made from the stall-in-charges concerned. As a result, in four DPCs, value of excess damage after providing for five *per cent* allowable damage worked out to ₹87.10 lakh as given in *Table 2.29.*

Table 2.29: Details of excess damage in own stalls

Name of DPC	Sales	Damage	Allowable damage	Excess damage	Period[40]
	(₹ in lakh)				
Thiruvananthapuram	412.94	25.65	20.65	5.00	October 2015 to March 2016
Kollam	1,295.74	126.29	64.79	61.50	2011-12 to2015-16
Kottayam	880.16	63.92	44.01	19.91	2013-14 to 2015-16
Palakkad	15.28	1.45	0.76	0.69	December 2015 to March 2016
Total	**2,604.12**	**217.31**	**130.21**	**87.10**	

Thus, inefficient management led to excess damage and non-recovery of consequent loss from the delinquent officials.

Accepting the audit observation, the Company agreed to fix the maximum allowable limit of damage and to fix responsibility on the staff concerned for excess damage in future. This was also endorsed (January 2017) by GoK.

Recommendation No. 7: ***The Company may fix norms for maximum permissible percentage of damage for each category of vegetables and fruits. The staff concerned should be held responsible if damage happens above the permissible limit.***

Quality of vegetables sold as 'Safe to eat'

2.2.12 GoK implemented Annual Plan scheme (2012-13), 'Production and marketing Safe to Eat vegetables' through Government outlets with the objective of monitoring pesticide residues in vegetables and fruits. The Company was selling vegetables and fruits under the banner 'Safe to eat'.

We observed that the Company did not monitor pesticide residue in vegetables and fruits for selling the same under the banner 'Safe to eat'. Examination of pesticide residues in vegetables and fruits in Company's outlets by independent agencies disclosed the following facts.

[40] **Period for which records were made available to Audit.**

- The lab test done on vegetable samples collected from two outlets of the Company in Thiruvananthapuram during the period from January to December 2013 by Kerala Agricultural University revealed that 26 out of 48 samples were unsafe to eat due to high pesticide content. Similarly, nine out of 20 samples collected during the period from January to December 2014 were found unsafe to eat.
- At the instance of Audit, the Assistant Commissioner of Food Safety collected eight samples from DPC Thiruvananthapuram and two samples from Company's own stall at Kowdiar and found that two items viz., salad cucumber and chilli contained pesticides above the permissible limit as shown in *Table 2.30.*

Table 2.30: Details of pesticides found in vegetables

Name of the item	Name of pesticide found	Permissible limit of the pesticide	Result
Salad cucumber	Acephate	0.050 mg/kg^{-1}	0.769 mg/kg^{-1}
Chilli	Profen Acephate Thiamethoxam	0.050 mg/kg^{-1} 0.050 mg/kg^{-1} 0.050 mg/kg^{-1}	2.170 mg/kg^{-1} 0.520 mg/kg^{-1} 0.053 mg/kg^{-1}

We observed two instances of food poisoning after consumption of vegetables purchased from the Company as discussed below:

- During June 2014, students and teachers of Government Higher Secondary School for Girls, Cotton Hill, Thiruvananthapuram were hospitalised due to food poisoning after consuming vegetables (yam) supplied by the Company. The Kerala State Commission for Protection of Child Rights had directed (February 2015) the Company to ensure the quality of vegetables supplied. Further, in July 2016, the Director General of Prisons and Correctional Services informed that tapioca supplied by the Company to Special Sub-Jail, Thiruvananthapuram had caused stomach ailments to the jail inmates. The Superintendent of the Jail also appraised (July 2016) the Company regarding the poor quality of tapioca supplied to them.

While accepting the audit observation, GoK informed that directions had already been given to the Company to furnish necessary proposals for starting chemical test laboratories in all the districts.

Lapses in Internal Control system

Lapses in accounting of procurement and damage

2.2.13 The following Internal Control lapses were noticed:

- The Company collected indents on a daily basis from the stalls and institutions to ascertain their requirement of vegetables and fruits on the next day. However, these indents were not properly tabulated and purchases regulated in accordance with indented quantity. We observed excess procurement of vegetables and fruits in two DPCs as shown in *Table 2.31*:

Table 2.31: Excess procurement of vegetables and fruits

Name of the DPC	Year	Indented quantity	Procured quantity	Excess quantity
		(MT)		
Thiruvananthapuram	2014-15	6,423	7,059	636
	2015-16	2,803	4,067	1,264
Kollam	2014-15	893	1,618	725
	2015-16	1,019	1,236	217
Total		**11,138**	**13,980**	**2,842**

Excess procurement led to abnormal damage of vegetables and fruits as stated in *Paragraph 2.2.11*.

- At Sub-Centre Poojapura, DPC Kottayam and DPC Kollam, we noticed that purchases were made from one person, but payments were made to a different person. Illustrative cases of such irregularities for the settlement of purchase bills are given in ***Appendix 8***.

- Payment vouchers were prepared and passed by a temporary Accounts Assistant instead of a permanent staff authorised by the MD of the Company. As the payments were made in cash and details of purchases, sales, closing stock and damage were not recorded in the stock register, the possibility of payment based on bogus bills could not be ruled out. The situation was more alarming at the Sub Centre Poojappura as it recorded purchases showing only the amount and name of suppliers in Tally Software while more specific details like, name of item, quantity procured, rate/kg, etc., were not recorded.

- Stock register was not maintained at DPC Kollam while it was not properly maintained at DPC Thiruvananthapuram and Sub-Centre Poojappura;

- Cash Book was not updated at DPC Thiruvananthapuram and Sub-Centre Poojappura;

In the absence of such primary records, fraudulent practices could not be ruled out. It is also pertinent to mention that the Finance Inspection Wing of GoK found blank bill books of two suppliers from the Company's head office and Sub-DPC Chadayamangalam.

The Company/GoK accepted the audit observations and agreed to issue proper directions to all DPCs for proper maintenance of records. It also agreed to give directions to the managers to procure vegetables from the farmers' cluster with proper bills duly countersigned by the agriculture officer concerned.

Excess employment of staff at DPCs

2.2.14 In the Government Order (November 2001) for the revival of the Company, it was directed that one worker should handle at least 500 kg of items per day.

A test check of the staff position at the five selected DPCs revealed that the average weight handled per person at DPC Thiruvananthapuram was far less as shown in *Table 2.32.*

Table 2.32: Details of excess staff in DPCs

Year	DPC Thiruvananthapuram					
	Total staff at DPC	Total weight handled (kg)	Average weight handled per day* (kg)	Average weight handled/ day/ staff (kg)	Number of Staff required[41]	Number of Excess Staff
2012-13	112	50,82,433	16,941.44	151.26	34	78
2013-14	141	74,21,804	24,739.35	175.46	49	92
2014-15	157	90,07,570	30,025.23	191.24	60	97
2015-16	132	48,20,918	16,069.73	121.74	32	100

***** *An average of 300 working days per year.*

Accepting the audit observation, GoK agreed (January 2017) to reduce excess staff at DPC Thiruvananthapuram.

Conclusion

The Company could not achieve the intended objectives as it procured only around two *per cent* of the total vegetable production in the State during 2011-12 to 2015-16. Lower share in procurement of vegetables were due to lack of co-ordination among various agencies of GoK, inconsistent procurement policy, absence of procurement centres in all districts and non-implementation of planned schemes. Instead of procuring directly from farmers, world markets, etc., as envisaged, the Company made 75.47 *per cent* purchases valuing ₹53.74 crore from traders/ middlemen during 2014-15 to 2015-16. Selection of traders was not through transparent process. DPC Thiruvananthapuram purchased items worth ₹4.34 crore (21.34 *per cent*) in 2014-15 and ₹4.93 crore (37.32 *per cent*) in 2015-16 from a single supplier. Similarly, 77.90 *per cent* of the purchase from traders for the year 2014-15 and 74.71 *per cent* for the year 2015-16 were made from a single non-empanelled supplier at DPC Kottayam. There were delays in payment to farmers and failure to pay remunerative prices to farmers. Vegetables supplied by the Company as 'Safe to eat' contained chemical residues above permissible limits in certain cases. The Company also failed to supply vegetables and fruits to the public at reasonable price due to improper pricing policy, non-passing of benefit of subsidy to the public and inefficient operation of sales outlets.

[41] **To handle weight at the rate of 500 kg per person per day.**

2.3 Information System Audit of HT and EHT Billing and Accounting software used by Kerala State Electricity Board Limited

Executive Summary

Introduction

Kerala State Electricity Board Limited (Company), incorporated in January 2011, is engaged in generation, transmission and distribution of electricity in Kerala. The electricity consumers of the Company are divided into Low Tension (LT), High Tension (HT) and Extra High Tension (EHT) categories.

HT/EHT Billing Process

The electricity consumption of HT/EHT consumers was assessed for billing by the Assistant Engineers at Electrical Section offices through meter reading. Meter reading data along with other details were thereafter sent to Special Officer-Revenue (SOR) at the Corporate Office. The authorised staff at SOR uploaded the data into the billing software and bills were generated.

Software development and implementation

Tata Consultancy Services Limited (TCS) was awarded the work of providing and implementing HT/EHT billing system and web enabled services (Phase 1) and providing and implementing Automated Meter Reading System for HT/EHT consumers (Phase 2).

We observed delay in framing of System Requirement Specification, incomplete development of software, lack of planning in implementation and non-implementation of Automated Meter Reading System.

Mapping of business rules

All business processes relating to billing, collection and accounting of HT/EHT consumption had to be mapped correctly in the application software. Further, the business processes mapped in the software had to be compliant with the applicable laws, rules and regulations with all the necessary controls to ensure that the amount billed and collected conformed to the prescribed rules and regulations.

We observed that relevant business rules had not been fully and correctly mapped into the application, which had an impact on the revenue realisation.

General IT controls

General controls are concerned with the organisation's IT infrastructure, IT related policies and working practices. We observed issues in Data migration, password policy, etc.

Application controls

Application controls include input control and validation control. Application controls are used in a computer system to provide assurance that all transactions are valid, authorised and complete. We noticed lack of proper input controls and validation controls.

Generation of reports

The application software must be capable of generation of quality reports on various data coming under its purview. Further, the application should be designed to generate reports on regular basis as and when required by the stakeholders.

We noticed that incorrect and incomplete data were stored and processed in the billing software and consequently inaccurate and unreliable reports were generated.

Introduction

2.3.1 Kerala State Electricity Board Limited (Company), incorporated in January 2011[42], is engaged in generation, transmission and distribution of electricity in Kerala. The electricity consumers of the Company are divided into Low Tension[43] (LT), High Tension[44] (HT) and Extra High Tension[45] (EHT) categories.

As of March 2016, the Company had 1.17 crore LT consumers, 5020 HT consumers[46] and 53 EHT consumers[47]**.** These consumers had been billed for consumption of electricity at rates approved as per the Tariff Orders of the Kerala State Electricity Regulatory Commission (KSERC). The billing of consumers was also subject to the provisions of Kerala State Electricity Supply Codes (Supply Code) 2005 and 2014.

With a view to automate key revenue billing and collection activities in respect of HT/EHT consumers and to improve customer satisfaction, the Board of Directors (BoD) of the Company decided (July 2008) to implement a comprehensive and fully automated computerised system consisting of HT/EHT billing application software, Automated Meter Reading (AMR)[48] system and web enabled services for the HT/EHT consumers. The Company introduced the billing and accounting software, Enterprise Related Generalised Information System (ENRGISE) developed by Tata Consultancy Services Limited (TCS) in September 2010. ENRGISE was based on Linux operating system and used Postgres Plus Advanced Server for database management.

Details of revenue from HT/EHT consumers and the total revenue from sale of power during the last five years ending 2015-16 are given in *Table 2.33.*

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[42]The Company was formed after unbundling the erstwhile Kerala State Electricity Board in accordance with the provisions of Electricity Act, 2003.

[43]Low Tension consumers are those consumers who avail supply of electricity at a voltage not exceeding 1,000 volts under normal conditions subject to the percentage variation as may be specified by the Central Electricity Authority (CEA) from time to time.

[44]High Tension consumers are those consumers who avail supply of electricity at voltage higher than 1000 volts but do not exceed 33,000 volts under normal conditions subject to the percentage variation as may be specified by the CEA from time to time.

[45]Extra High Tension consumers are those consumers who avail supply of electricity at voltage higher than 33,000 volts under normal conditions subject to the percentage variation as may be specified by the CEA from time to time.

[46] Excluding dismantled service connections.

[47] Excluding dismantled service connections.

[48]The main objective of AMR system is to acquire meter data from HT/EHT consumer meters automatically from remote avoiding any human intervention.

Table 2.33: Details of revenue from HT/EHT consumers

(Figures: ₹ in crore)

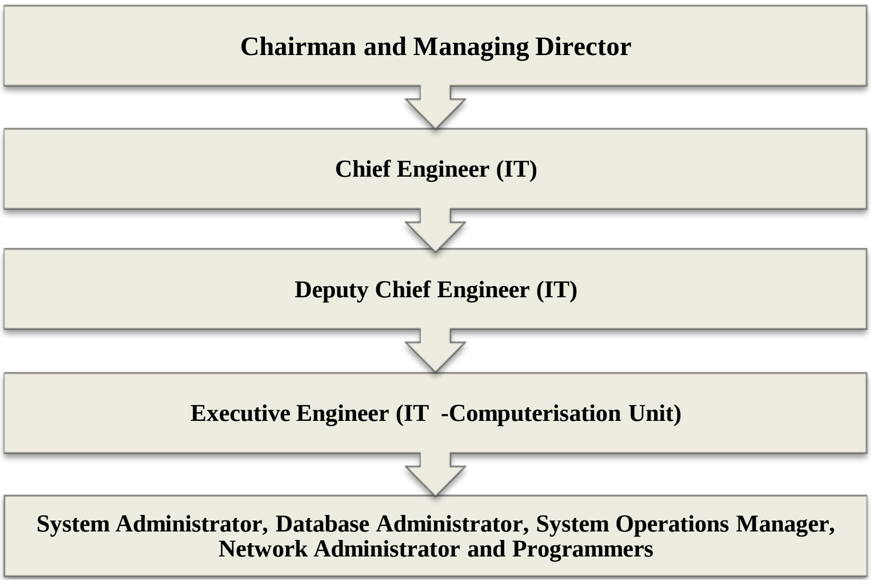
Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
Revenue from sale of power to HT/EHT consumers[49]	1,845.70	2,484.20	2,977.78	3,007.70	3,284.80
Total revenue from sale of power including LT consumers	5,593.02	7,223.39	9,978.88	9,879.35	10,487.71
Percentage of revenue from sale of power to HT/EHT consumers to total revenue from sale of power	33.00	34.39	29.84	30.44	31.32

Source: Annual accounts of the Company.

Organisational structure

2.3.2 The Information Technology (IT) wing of the Company was responsible for overall development, implementation and maintenance relating to automation of various functional areas of the Company. The Chief Engineer (IT) reports directly to the Chairman and Managing Director of the Company and is assisted by a Deputy Chief Engineer and Executive Engineers (EEs). IT–Computerisation Unit (IT-CU) at Corporate Office is headed by an Executive Engineer responsible for the monitoring and maintenance of HT and EHT billing system. Organisational set-up of IT Computerisation Unit is given in *Chart 2.2* below:

Chart 2.2: Organisational set-up of IT Computerisation Unit



HT/EHT Billing Process

2.3.3 The Company had 747 Electrical Section offices[50] as at the end of July 2016, out of which 746 Section offices were connected to Wide Area Network (WAN)[51]. The electricity consumption of HT/EHT consumers was assessed

[49] Including deemed HT Consumers.
[50] Electrical Section offices are the base level offices in the distribution wing of the Company.
[51] WAN stands for Wide Area Network. It is a computer network over a large geographical area used to relay data among various computer terminals.

for billing by the Assistant Engineers (AEs) at Electrical Section offices through meter reading[52] taken manually. Meter reading data along with other details were thereafter sent[53] to Special Officer-Revenue (SOR) at the Corporate Office. The authorised staff at SOR uploaded the data into the billing software and bills were generated. The bills were then issued to the consumers for making payments.

Audit Objectives

2.3.4 The audit objectives were to assess whether:

- there existed a proper plan and procedure to develop and implement the system to achieve the Company's objectives and requirements;
- the system efficiently supported the business process and ensured compliance of applicable rules and regulations and the bills were generated accordingly;
- adequate security controls were in place in the system; and
- the system provided complete, reliable and authorised information for management use.

Audit Criteria

2.3.5 Audit adopted the following criteria:

- Business rules, regulations and procedures of the Company;
- Information security policy and password policy of the Company;
- Orders/ circulars/ notifications issued by Government of India, Government of Kerala and Board of Directors of the Company from time to time;
- Tender documents and request for proposal and System Requirement Specification; and
- Best practices for IT development and implementation.

Audit scope and methodology

2.3.6 The scope of IT Audit included the evaluation of the software used for computerised HT/EHT billing and the effectiveness of the software in generating correct billing for the Company. The scope also included review of records at IT-CU and office of the SOR at Corporate office. The data of bills maintained in the central server, located at Corporate Office of the Company at Thiruvananthapuram, in respect of all HT/EHT consumers pertaining to the period April 2011 to July 2016 was selected for checking and evaluation with a view to ascertain completeness, regularity, integrity and consistency of data. The entire data of the above period was obtained in the form of a database dump and was analysed using Computer Assisted Audit Techniques. The adequacy of IT controls was evaluated to identify loss/omission/excess collection of revenue and to ensure comprehensiveness of the billing software.

[52]The meter readings were taken at every billing cycle normally at the end of a month.

[53] From July 2016 onwards, AEs of all Electrical Section offices were allowed to upload the meter reading data directly to the billing system.

Audit Findings

2.3.7 Audit findings on the computerisation of HT/EHT billing system are discussed in succeeding paragraphs.

2.3.8 Software development and implementation

Delay in framing of System Requirement Specifications

2.3.8.1 As per the work order, system study and design and coding had to be completed by Tata Consultancy Services Limited (TCS) by November 2009. System Requirement Specifications[54] (SRS) which is vital for development of the software should have been submitted before November 2009. We observed that the SRS was submitted by the TCS in April 2010 after a delay of four months and the BoD of the Company approved the SRS only in November 2010 after parallel running and system testing. The system development and implementation was, thus, done by TCS without a formally approved and mutually agreed SRS.

GoK replied (January 2017) that a functional committee having domain experts had approved the SRS in June 2010.

The reply was not acceptable since the SRS had to be approved before the completion of software development and system integration. The SRS was, however, approved (November 2010) only after the completion of software development and system integration in June 2010.

Incomplete development

2.3.8.2 A tender was invited (September 2008) for the computerisation of the HT/EHT billing system and the work was awarded (June 2009) to TCS who quoted the lowest price of ₹3.99 crore. The scope of the work included providing and implementing HT/EHT billing system and web enabled services (Phase 1) and providing and implementing AMR system for HT/EHT consumers (Phase 2).

TCS completed the software development and the system integration[55] of HT/EHT Billing Application (Phase 1) in June 2010 and the software was tested on pilot basis (parallel run) for two months (July and August 2010) by generating bills of five months, April to August 2010. The billing software was rolled out in September 2010 and monthly bills for all HT/EHT consumers for the month of September 2010 were generated and sent to the consumers. Thereafter, the new software was being used for bill generation of all HT/ EHT consumers. The web enabled services were commissioned in July 2011.

The functionalities like Reports on revenue loss due to theft of power, Security Deposit (SD) assessment, Consumer Personal Ledger (CPL) and Unauthorised

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[54] A System Requirements Specification is a description of a software system to be developed. It lays out various requirements of a system.
[55] System integration is the process of bringing together the sub-systems into one system.

Additional Load (UAL) billing and Audit are indispensable for correct and timely billing of consumers, timely revenue collection, proper and correct review of SD, proper accounting of collections, billing/ levying of penalty for UAL, etc. Though these were included in the System Requirement Specification (SRS), functionalities like SD assessment and CPL were incorporated or implemented after rolling out of the software. We also noticed that the implementation of these functionalities were defective as discussed in *Paragraphs 2.3.9 and 2.3.12*. The functionalities like Reports on revenue loss due to theft of power, UAL billing and Audit were yet to be incorporated (January 2017).

Government of Kerala (GoK) replied (January 2017) that SD assessment, detection of theft and UAL were done at field offices (Electrical Section offices) and provision was given in the application for capturing these details as per the SRS. The reply was not acceptable as the functionalities like Reports on revenue loss due to theft of power, UAL billing and Audit were yet to be incorporated (January 2017) and implemented. Functionalities like SD assessment and CPL were defective.

Non-implementation of Automated Meter Reading system

2.3.8.3 Even though the computerised billing (Phase 1: cost ₹1.93 crore) was rolled out in September 2010, the Company had not awarded the work order for implementing the AMR system (Phase 2) as of September 2016 as the Company claimed that none of the bidders had proven experience in implementation of AMR system in India. In the absence of bidders with experience in AMR system, the Company had decided to implement AMR in a phased manner. Subsequently, the Company decided (January 2010) to implement AMR system under RAPDRP[56] scheme announced by Government of India (GoI) in which financial assistance was available for implementation of AMR. However, AMR system under RAPDRP had not been implemented so far (January 2017).

Due to non-implementation of AMR system, SOR/IT-CU wings at Corporate Office were deprived of direct access to the meter data of the consumers and therefore, meter readings were being done manually. Data transfer from Electrical Section offices to the central server was, therefore, subjected to human interventions.

GoK stated (January 2017) that the implementation of AMR system was excluded as the Company decided to implement it under RAPDRP scheme announced by GoI during the same period in which financial assistance for the same was available. The fact, however, remained that the Company could not implement the AMR even under RAPDRP so far (January 2017).

Mapping of business rules

2.3.9 HT/EHT billing process was a mission critical system, which directly impacts the revenue collection of the Company. Therefore, all business

[56] **Restructured Accelerated Power Development and Reforms Programme was a power reforms scheme introduced by GoI.**

processes relating to billing, collection and accounting of HT/EHT consumption had to be mapped correctly in the application software. Further, the business processes mapped in the software had to be compliant with the applicable laws, rules and regulations with all the necessary controls to ensure that the amount billed and collected conformed to the prescribed rules and regulations.

We observed that relevant business rules had not been fully and correctly mapped into the application, which had an impact on the revenue realisation as discussed in succeeding paragraphs.

Short collection of energy charges from deemed HT consumers

2.3.9.1 As per the Supply Codes, 2005/ 2014, electricity connections with contract demand (CD) 100 kVA or below were allowed to draw electricity from LT distribution lines. KSERC, however, allowed a few consumers who were drawing electricity at LT voltage with CD above 100 kVA before the introduction of Supply Code, 2005 to continue this facility. These consumers were classified by the Company as Deemed HT consumers with effect from March 2005. As per the schedule of tariff issued by KSERC with effect from May 2013, the deemed HT consumers were to be charged[57] under HT and LT tariff for demand and energy charges, respectively. The Company had 64 deemed HT consumers as of August 2016.

We, however, noticed that billing procedure mapped in the system for deemed HT consumers was not as per the above schedule of tariff issued by KSERC but same as applied for HT consumers with an additional three *per cent* energy charges. The additional three *per cent* was charged since the billing of both demand and energy charges of deemed HT consumers under the HT Tariff would result in revenue loss to the Company. However, this three *per cent* was not sufficient to make good the revenue loss in the case of deemed HT consumers except industrial and agricultural consumers. This resulted in short collection of energy charges amounting to ₹1.44 crore from 22 deemed HT consumers for the period from May 2013 to July 2016.

GoK replied (January 2017) that there was no clear classification of deemed HT consumers in Supply Code 2014. GoK also stated that the matter had been taken up with KSERC and was being implemented in the system.

The reply was not acceptable since the Company had classified these consumers as deemed HT consumers since March 2005 and could be separately identified from the database. Further, the failure to charge deemed HT consumers as per the Schedules of Tariff resulted in revenue loss to the Company.

Non-collection of increased demand charge from seasonal consumers

2.3.9.2 As per the tariff order, seasonal consumers[58] are billed for the period of actual use of power under appropriate tariff category. The monthly minimum

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[57] Charges for electricity mainly include two components (1) Demand charge on the connected load/ contract demand and (2) Energy charges based on the units consumed.

[58] Seasonal consumers are those consumers who are registered as seasonal consumers with the Company and intend to avail electricity only during a season in a year under HT Tariff. They will not be billed for the idling period.

charges for the billing period shall be 75 *per cent* of the Contract Demand[59] as increased by a formula i.e., 5(12-N) % where 'N' is the number of months during which the consumer registers himself to utilise the power in a year. There were three seasonal customers as noticed from the database.

We observed that this business rule of charging increased minimum charges was not mapped into the system. As a result, the system failed to collect increased demand charges amounting to ₹5.08 lakh from these three consumers[60] during April 2011 to March 2016.

GoK replied (January 2017) that action had been taken for realising the short collection.

Non-mapping of business rule with regard to annual review of contract demand

2.3.9.3 As per Regulation 101 of the Electricity Supply Code 2014, if the recorded Maximum Demand (MD) of HT/EHT consumer exceeded the contract demand[61] (CD) in any three billing periods during the previous financial year, the Company shall issue a notice of 30 days to the consumer to submit an application for enhancement of contract demand within the notice period. If there was no response from the consumer within the notice period, the Company shall enhance the contract demand of the consumer to the extent of average three top readings of MD during the previous financial year. If the distribution system is not adequate to meet the enhanced demand, the consumer shall be directed to restrict the demand to the permissible limit, till necessary augmentation/upgradation/uprating works are done in the distribution system.

We observed that the above business rule was not incorporated effectively in the system as detailed below:

- During 2014-15, recorded MD in respect of 803 consumers exceeded the CD in three or more billing periods. 640 of these consumers did not, however, enhance the CD during the year 2015-16 as required by the Supply Code 2014.

- Distribution system of the Company was sufficient to meet the enhanced demand of 616 consumers out of the above 640 consumers. Had the Company enhanced the CD as per the requirements of Supply Code 2014, the demand charges could have been charged on these 616 consumers on the enhanced CD from May 2015 onwards (taking into account the notice period of 30 days). The enhanced demand charges foregone, for the period from May 2015 to March 2016 worked out to ₹2.43 crore.

- Supply Code 2014[62] provided for review of security deposit of consumers on enhancement of contract demand by adopting a

[59]Contract demand means the maximum demand of energy agreed to be supplied by the licensee (Company).
[60] Consumers Numbers: 1365040000096 (₹0.76 lakh), 1365040002974 (₹0.97 lakh) and 1366750003726 (₹3.35 lakh).
[61] Contract demand means the maximum demand of energy agreed to be supplied by the licensee (Company).
[62]Regulation 68.

methodology[63] for determining the security deposit. We, however, observed that this provision to review the adequacy of security deposit on enhancement of contract demand was not mapped in the system.

GoK replied (January 2017) that appropriate action would be taken to regularise contract demand and further stated that there was no financial loss as the Company had been charging 50 *per cent* extra over the normal demand charges whenever MD exceeded CD.

The reply was not correct as the enhanced demand charge foregone had been worked out after considering the excess demand charges levied by the Company during the month in which the actual consumption exceeded the CD.

Mapping of wrong tariff

2.3.9.4 Tariffs were determined on the basis of the purpose for which electricity was used by consumers. Prior to August 2014, banking and financial institutions, Government guest houses, insurance and telecommunication companies drawing electricity at high tension voltage were billed under 'HT IV Commercial tariff'. As per the schedule of tariff which came into effect from August 2014, banking and financial institutions and Government guest houses were classified under 'HT II A (General)' tariff and insurance and telecommunication companies were classified under 'HT II B (General)' tariff. Under the revised tariff order, the tariff rates applicable to HT II A and HT II B consumers were lower than that of HT IV consumers.

We observed that the revised categorisation of consumers and their tariffs were not updated/ mapped into ENRGISE. Consequently, 11 banking companies, three guest houses, three insurance companies and three telecommunication companies continued to be billed under the pre-revised tariffs. This resulted in excess collection of energy charges amounting to ₹87.23 lakh from the above consumers during August 2014 to March 2016.

GoK replied (Janaury 2017) that report from the agreement authority[64] concerned was required for assigning new purposes based on the new tariff order and the change of tariff would be effected based on such reports. The reply, however, was silent on the above mentioned consumers.

Excess collection of meter rent

2.3.9.5 Until September 2014, the applicable meter rent per month for energy meters with Availability Based Tariff (ABT)/ Time of the Day (TOD) facilities supplied by the Company was ₹5,000 for the first month of electricity connection and ₹6,000 thereafter. The KSERC had revised (September 2014) the meter rent for ABT/ TOD meters as ₹1,000 with effect from October 2014. BoD of the Company had also adopted the revised meter rent in November 2014.

[63] In the case of enhancement of load, cash deposit shall be collected by adopting the formula- Load * Load Factor of the category in which consumer falls * Period taken for determination of security deposit * Current tariff in which load factor is the percentage value varying from 40 to 100 *per cent* depending upon the tariff of the consumer as given in the Annexure 3 to Supply Code 2014.

[64] Agreement authorities are Deputy Chief Engineers/ Chief Engineers who enter into agreement with consumers for electricity connection.

We observed that the change in the meter rent was not properly incorporated in the system and as a result, the Company continued to collect meter rent at higher rates from 22 consumers during the period from October 2014 to August 2016 resulting in excess collection of meter rent amounting to ₹9.86 lakh.

While accepting the observation, GoK stated (January 2017) that modification in the application was being done for implementing the same.

Penal interest on belated payment

2.3.9.6 As per the Regulation 131 of Supply Code 2014, if a consumer failed to remit the bill amount on or before the due date, the Company shall recover interest on the amount of the bill at the rate of 12 *per cent per annum* for delay up to 30 days and thereafter, at the rate of 18 *per cent per annum* for the entire period of delay.

We noticed that the above provision in the Supply Code 2014 was not mapped in the system. Due to this, there was shortfall in collection of interest of ₹14.72 lakh from 349 consumers who had paid the electricity bill belatedly during the period from April 2014 to March 2016.

GoK replied (January 2017) that the errors were due to wrong calculation of arrear and a separate team had been formed for correcting the errors identified.

Collection of electricity duty

2.3.9.7 As per the Kerala Electricity Duty Act, 1963, consumers were liable to pay electricity duty at specified rate to the State Government for consumption of energy. Section 12 of the Act, however, exempted institutions of Government of India from payment of electricity duty.

We observed that the Company had not effectively mapped this rule into the system which resulted in:

- Collection of electricity duty amounting to ₹17.16 lakh from five institutions of Government of India. Though consumers were being tagged as 'Central Government' in the system, Electricity Duty was collected from them. This indicated that the charging of the Electricity Duty was not automated in the system and was subjected to human intervention.
- Non-collection of electricity duty amounting to ₹4.81 lakh from three consumers during the period from April 2011 to July 2016.

GoK intimated that exemption field for five 'Central Government' consumers identified by Audit was updated and electricity duty field of other three consumers was made applicable and bills were revised accordingly. It was also assured that the software would be modified to charge electricity duty from all consumers except the specified categories.

Deficiencies in determination and collection of Security Deposit (SD)

2.3.9.8 As per the Supply Code 2014, consumers were required to provide SD at the rates approved by the KSERC for availing electricity connection. The amount of SD was determined by adopting a formula[65]. This formula was also adopted for calculating the amount of SD at the time of addition of connected load. Further, all HT consumers were required to maintain SD equivalent to two times the average monthly bill amount throughout the period of service connection. If it was found that the SD available with the Company was more than required, the excess amount shall be refunded to the consumer by way of adjustment in the ensuing two electricity bills.

We reviewed the tables pertaining to SD in the system and observed the following deficiencies:

- The processes to determine the SD was not mapped in the system. Therefore, the adequacy of SD at the time of connection and on further enhancement of load could not be ensured and checked in the system.

  GoK stated (January 2017) that the methodology to determine the SD would be automated while implementing the workflow based new connection.

- As per the SRS, the interest payable on SD was to be calculated on periodic basis as defined by the Company from time to time. We observed that the interest rate applied for the financial year 2012-13 was 8 *per cent* though the bank rate effective as on 01/04/2012 was 9.5 *per cent*. This resulted in short payment of interest of ₹2.50 crore to consumers.

  GoK replied (January 2017) that a mechanism would be established to get the bank rate for each year promptly so as to update the same in the system.

- Initial SDs were collected from the consumers before effecting service connections. The amount of deposits collected from all the consumers were entered into an account of dummy consumer (1355460009367) created for this purpose. After effecting service connections, the SDs were transferred to respective consumer's account. We noticed that an amount of ₹14.80 crore was pending (August 2016) allocation from the account of dummy consumer to the respective consumer's account.

  GoK stated (January 2017) that steps had been taken to reduce the collections in the dummy consumer account. It was further stated that the amount transferred to actual consumer had not been deducted from the dummy consumer in some cases and hence, the figures were not actual.

  The fact, however, remained that these consumers were deprived of interest on SD due to delay in allocation of SD to their account. Further, data integrity in respect of SD could not be ensured.

[65] **Load * Load Factor of the category in which consumer falls * Period taken for determination of security deposit *Current tariff.**

- During 2015-16, an excess interest of ₹0.19 crore on SD for the period 2014-15 was credited to 56 consumers which had to be revised and adjusted later (March 2016) manually. GoK stated that the excess interest credited has been recovered and adjusted.

Collection of income tax at source

2.3.9.9 As per the Income Tax Act, 1961 the Company was required to deduct income tax at source (TDS) on the interest (where interest exceeded ₹5000 in a year) on the security amount deposited by the consumers. The Permanent Account Number (PAN) of consumers containing 10 digit alpha-numeric codes had to be correctly mapped in the system for correct deduction and deposit of amount of tax.

A review of the database revealed that:

- Control for ensuring correct combination of alpha numeric code was absent which resulted in wrong entry of PAN in respect of eight consumers. Status of the consumer such as corporate, non-corporate, etc., was also not linked to the PAN.

  GoK replied (January 2017) that these errors happened during initial migration and PAN validation had been rectified. It was also stated that appropriate PAN validation based on the above classification would be implemented.

- TDS was deducted in respect of 121 consumers (Central Government, State Government, local bodies, *etc*.) who were exempted from income tax.

  GoK stated (January 2017) that 'not applicable field' of exempted consumers had been updated and 'TDS applicable field' was made mandatory.

General IT controls

2.3.10 IT controls in a computer system are all the manual and programmed methods, policies and procedures that ensure the protection of the entity's assets, the accuracy and reliability of its records and the operational adherence to the management standards. It includes General controls and Application controls. General controls are concerned with the organisation's IT infrastructure, IT related policies and working practices.

Issues in data migration

2.3.10.1 Prior to implementation of ENRGISE, the Company was using an application software for billing of HT/ EHT consumers since December 1999. This software was based on Linux Operating System and Oracle database. The data migration to new software was carried out by the SOR. Data which was not available in the old software was captured manually. The data in the new system was verified to determine whether data was accurate, complete and was supported in the new system.

We observed that critical data fields in the new database were incorrectly migrated due to lack of input controls in the new software and data was not properly checked during data migration as brought out below.

- In respect of nine consumers whose details were migrated from the old application software, date of connection was mentioned as ‘0001-09-22, 0007-08-31, 0096-12-13’ instead of meaningful date format.

- One of the functionalities envisaged in the billing system was to inform consumers regarding new bill over the email/ mobile phone. For this purpose, correct email ids and mobile phone numbers (having 10 digits) of the consumers were to be entered in the system.

  We noticed that email id of 119 consumers were incorrect. Email id of another 308 consumers were entered as "htbill@kseb.in” which was the default email id assigned by the Company during the migration. Similarly, in the case of 329 consumers, mobile numbers with more than 10 digits were entered in the system indicating absence of control for checking the format of phone numbers.

  GoK stated (January 2017) that efforts were being made for correcting data and providing validation for checking length of mobile number.

- Out of the 15,918 meters (as at March 2016) in the master table for meters, meter ownership id in respect of 3,385 meters were null, indicating ambiguity in ownership of the meters. Further, the connection status of 1,533 meters out of these 3,385 was recorded in the database as ‘working’. The above facts indicated active usage of these meters even though the ownership details were incomplete.

  GoK stated (January 2017) that steps had been taken for rectifying errors. The fact, however, remained that the ownership of the meters pointed out could not be verified from the system. As such collection of meter rent for all the meters owned by the Company could not be ensured by the system.

Password policy

2.3.10.2 An organisation should have a good password policy to ensure security of data.

We observed that:

- The Company had a documented password policy which was implemented in February 2015 after a period of more than five years from the date of implementation of computerised billing software. Even though, the IT-CU Department could chalk out the Password policy, it was not approved by any competent authority including the BoD of the Company even as of October 2016.

- As per the Password policy of the Company, all the user level passwords shall be changed periodically at least once every three months. We analysed the compliance of this provision in the Password policy and noticed that out of 1,055 users given access to ENRGISE up to 10 August 2016, 730 employees had not adhered to the policy of the Company. These employees logged into the system using passwords, which were more than three months old. The age of the passwords ranged up to six years.

- As on 10 August 2016, there were 906 active users. Out of these, 99 users never logged into the system while 76 users had not logged into the system during the last six months. In some of the cases, the users had last logged into the system four years ago.

  The GoK replied (January 2017) that individual logins had been removed as part of implementation of Single Sign On and employees could log into Company portal using their employee id and password. Login and password management of all users to the portal are now handled by a user management application, which is in compliance with the password policy of the Company.

Application controls

2.3.11 Application controls are used in a computer system to provide assurance that all transactions are valid, authorised and complete. Application controls include input controls and validation controls. We reviewed the adequacy of general and application controls in the Company and noticed lack of proper input controls and validation controls as discussed below.

Lack of input control

2.3.11.1 The objectives of the input controls are to validate source data, authorisation and entry so that accurate, reliable and complete data is accepted by the application in a timely manner. While data input can be manual or system interface driven, errors and omissions can be minimised through good input design, adequate segregation of duties, etc. Review of the ENRGISE database revealed lack of input controls as detailed below:

- As per Regulation 70 of the Supply Code 2014, consumers were required to provide security deposit (SD) for availing electricity connection and 50 *per cent* of the SD may be in the form of bank guarantee (BG). BGs have unique numbers and name of issuing bank.

  We observed that in respect of 11 consumers[66], the same BG number was used and in respect of four consumers[67], name of the bank was not mentioned.

  GoK stated (January 2017) that proper validation for preventing entry of same BG number and drop down list for selecting bank would be incorporated.

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[66]**Consumer Numbers - 1355040002327, 1355150003426, 1365620001002, 1366070002202, 1356780003111, 1356780000856, 1355040002327, 1346340003239, 1345160001680, 1355460003571 and 1346460001901.**
[67]**Four consumers- Consumer Numbers 1355200003256, 1366630003269, 1346300000606 and 1365020001905.**

- As per Regulations 99 and 100 of the Supply Code 2014, an HT/EHT consumer could change the contract demand within a specified period after the date of connection. We observed that the date of connection in respect of six consumers was later than the date of contract demand change.

  GoK replied (January 2017) that errors were rectified and control mechanism implemented.

- The purpose for which electricity was proposed to be used and the product proposed to be manufactured by the consumer were the basic criteria for assigning tariff to industrial and commercial consumers. The product and purpose had to be entered in the system for correct billing.

  We observed that in respect of 2,119 consumers, neither purpose nor product was entered in the system and as such, the correctness of tariff assigned to these consumers could not be ensured.

- Correct and useful data is essential for any computer application. We noticed that date of application was recorded as later than the date of connection or date of receipt of security deposit in respect of 2,331 consumers.

  GoK stated (January 2017) that application date was created by the system and other dates were entered based on the documents received from the agreement authority.

  The fact, however, remained that there was a mismatch of dates in the system.

Lack of validation controls

2.3.11.2 Adequate validation controls should be incorporated in the billing software for correct and prompt billing of consumers. As per Regulation 125 of the Supply Code 2014, in case of defective/ damaged meters, the Company shall collect energy charges from consumers based on average consumption only for a maximum period of two billing cycles during which time the Company shall replace the defective/ damaged meter with a correct meter.

We noticed that the system allowed billing based on the average consumption for connections with defective meters for longer periods which ranged up to 37 months.

GoK stated (January 2017) that cases cited were not those of faulty meters but were cases of multiplication factor or PT voltage missing which was shown as meter faulty. However, GoK assured that the application would be modified for identifying such errors in multiplication factor and capturing voltage details during meter reading entry.

The reply was not acceptable since the SRS contained provision for mapping of status of meters in the system which was not done.

Generation of reports

2.3.12 The application software must be capable of generation of quality reports on various data coming under its purview as and when required by the stakeholders.

We noticed that the software was capable of generating reports relating to all modules in user defined formats. Apart from reports on regular information such as revenue, collection and arrears, the system generated customised reports as per the requirement of the management and operational staff.

We noticed cases, where incorrect and incomplete data were stored and processed in the billing software and consequent generation of inaccurate and unreliable reports as explained below.

Consumer Personal Ledger (CPL)

2.3.12.1 As per the SRS, a Consumer Personal Ledger (CPL) report was to be designed to display all relevant billing and payment details and outstanding details, if any, for a particular consumer. The SRS envisaged CPL as a statement of a consumer's consumption, billing and payment history. Audit analysed the database and noticed the following deficiencies relating to CPL:

- The Company incorporated the CPL module in the system only in December 2014. The tables in the database relating to CPL did not contain any details of transaction that occurred prior to March 2014.

- Though relevant fields were available in the CPL table for opening balance of outstanding energy charges, demand for the month, cumulative balances, etc., we noticed differences in respect of total demand as per the actual demand table and CPL table. We also noticed that there were substantial differences between the total realised amount in collection table and total amount in the CPL table during the period from April 2015 to March 2016. Due to above deficiencies, the Company could not put to use the CPL module for MIS and reporting purposes.

  GoK stated (January 2017) that deficiencies identified were since rectified and demand, collection and consumption details in CPL of consumers showed correct figures**.** The fact, however, remained that though CPL was one of the vital functionalities as given in the SRS and Work Order, it was not properly built into the system.

Inadequate information on the bills

2.3.12.2 As per the provisions of the Supply Code 2005/ 2014, the bill issued for sale of power to HT/EHT consumers shall mandatorily include information pertaining to the consumer, tariff, payment modes available, meters used, etc.

We, however, noticed that the bills generated through ENRGISE did not include mandatory details such as meter number and identification details of meter, status of meter (OK/ defective/ not available), billing status (regular/ assessed/ provisional bill/ special bill with reason), etc. The absence of vital details/ status of meters not only made the bills less transparent but also inconsistent with Supply Code 2005/ 2014.

GoK stated (January 2017) that all the details of meter would be provided to consumer if there was any meter replacement. Further, all the information were also available in HT/EHT Web Enabled Customers Portal.

The reply was not acceptable since as per the provisions in the Supply Code 2005/ 2014, the bill issued for sale of power to HT/EHT consumers shall mandatorily include information pertaining to the consumer, tariff, payment modes available, meters used, etc.

Conclusion

Absence of a mutually agreed system requirement specification in development of the system resulted in deficient billing application software. Though the system was envisaged as a comprehensive billing system, many of the features originally envisaged were not built into the system software. Absence of adequate input controls resulted in processing of incomplete, inaccurate and unreliable data and consequent generation of incorrect bills. The business rules in many cases were found to be improperly incorporated into the system along with insufficient application controls and validation checks. In many cases, the system failed to generate accurate and reliable reports for Management Information System due to storing and processing incorrect and incomplete data in the database.

Recommendation

The Company should:

1. **incorporate all functionalities and modules which were originally envisaged in the system without delay;**

2. **ensure that all business rules are suitably incorporated in ENRGISE. Efforts should be made to build adequate input control mechanism in the system to ensure that genuine, accurate and reliable data are processed; and**

3. **incorporate validation controls in the software to prevent loss of revenue.**