

**CHAPTER II**  
**PERFORMANCE**  
**AUDITS**



## CHAPTER II

### PERFORMANCE AUDITS

This Chapter contains findings of four Performance Audits on (i) Road Safety System in Tamil Nadu (ii) Provision of Health Care Services and Medical Education through Indian Systems of Medicine (iii) Computerisation of functions in Urban Local Bodies and (iv) Observance of Development Regulations for planning permission and building license in Chennai Metropolitan Area.

#### HEALTH & FAMILY WELFARE, HIGHWAYS & MINOR PORTS AND HOME, PROHIBITION & EXCISE DEPARTMENTS

##### 2.1 Road Safety System in Tamil Nadu

###### *Executive Summary*

*During the last five years, the State had the highest number of road accidents and the second highest number of fatalities at all India level. The State performed poorly in terms of the number of road accidents as a proportion to the vehicle population as well as road length. Despite being the first State to frame a Road Safety Policy and attempt an institutional framework for road safety measures, the goals set were not fully achieved. The number of road accidents kept increasing, despite the silver linings in terms of a marginal dip in the number of road accidents as a proportion to the vehicle population and road length.*

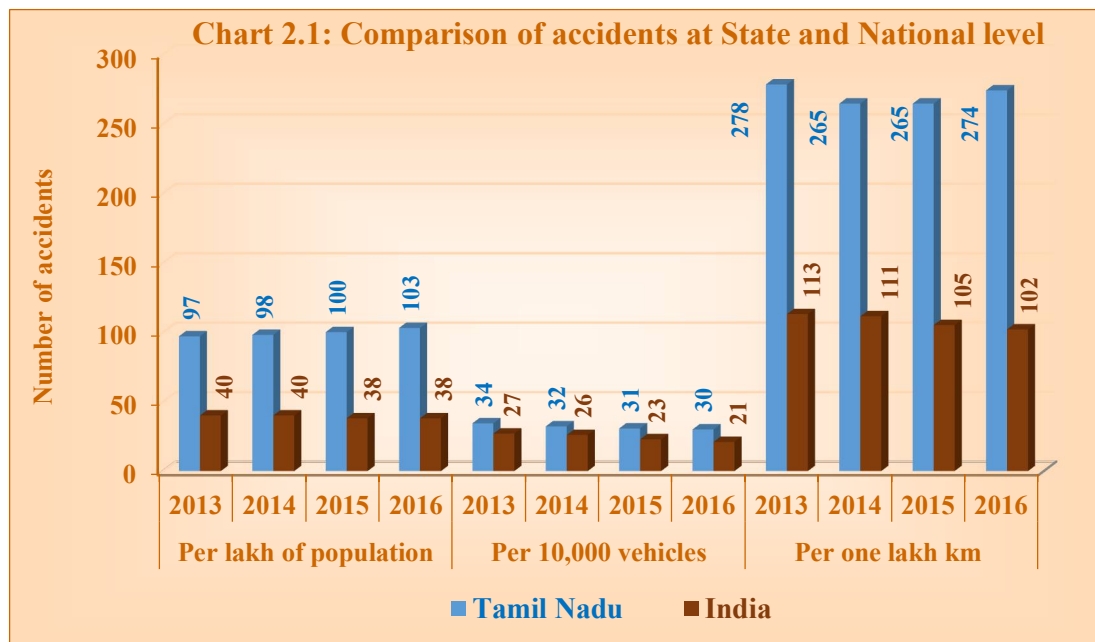
*The Performance Audit on Road Safety System disclosed lapses in planning, enforcement and emergency care as detailed below:*

- *Absence of proper testing tracks and poor quality of testing of applicants compromised the quality of drivers on the roads, posing threat to road users. Inadequate testing and ignorance combined with non-observance of traffic rules contributed to driver error being responsible for 77 per cent of accidents.*
- *Under reporting of accident data, including fatalities, to an extent of 33 per cent in the sampled districts, made the accident data incomplete.*
- *Enforcement was ineffective due to non-prosecution of offenders driving motor vehicles without driving licence, failure to suspend the driving licences for drunken driving, non-revision of rates of fines for traffic rule violations for 18 years and lack of a system to identify repeat offenders, in the absence of smart card driving licences.*

- *Poor contract management resulted in abandoning the ambitious Integrated Traffic Management System to upgrade traffic management in Chennai City resulted in a liability of ₹ 72 crore and non-achievement of the project's objectives.*
- *Road engineering issues also contributed to accidents due to deviations from prescribed standards in maintenance of roads, shortfalls in conducting road safety audits and failures in rectifying 'black spots'.*
- *Failure to ensure implementation of decisions taken at Road Safety Council and District Road Safety Committee meetings rendered monitoring ineffective.*

### 2.1.1 Introduction

Road accidents are close to five lakh per annum in the Country and about 70,000 in Tamil Nadu in 2016. In addition to loss of life or reduced quality of life, road accidents carry economic and psychological consequences for the survivors and their families. Tamil Nadu with a population of six *per cent* of the Country, accounted for 14 *per cent* of the road accidents and 11 *per cent* of the fatalities due to road accidents in the Country during 2013-16. The State had the highest number of accidents and was second to Uttar Pradesh in number of fatalities during 2013-16 at all India level. It performed poorly in terms of other parameters concerning accidents as given in **Chart 2.1**.



(Source: Ministry of Road Transport and Highways, New Delhi - Report on Road Accidents in India - 2016 and 2017)

#### 2.1.1.1 Road Safety Policy

The Tamil Nadu Road Safety Policy, 2007 emphasises on four E's of road safety viz., Education, Engineering (both of roads and vehicles), Enforcement

and Emergency Care. The Medium Term objective under the Road Safety Policy was to achieve a 20 *per cent* reduction in fatalities and injuries by 2013, considering 2006 as the base year. GoTN put in place an institutional framework for implementation of the Road Safety Policy as given in the succeeding paragraphs.

#### **2.1.1.2 State Road Safety Council**

The State Road Safety Council (SRSC), headed by the Minister for Transport is the apex advisory body on road safety, established under Section 215 of the Motor Vehicles Act, 1988 with the objective of improving road safety aspects in road transport sector in the State. The Council is responsible for reviewing implementation of various programmes of different departments and suggesting policy initiatives to the Government.

#### **2.1.1.3 District Road Safety Committee**

GoTN established the District Road Safety Committee in each district under the Chairmanship of the District Collectors with the job of considering various measures needed to promote road safety, prepare road safety plans with special attention to the accident prone spots/stretchers, maintenance of roads, driver training, accident analysis, publicity initiatives, traffic planning, highway patrol, passenger amenities, providing assistance to accident hit/affected people, etc., in the districts. The District Road Safety Committee for Chennai under the Chairmanship of the Commissioner of Police (CoP), Chennai, would address various Road Safety related issues in Chennai City. These Committees are required to meet at least once in a month.

#### **2.1.1.4 Inter-Departmental Committee on Road Safety Fund**

GoTN created (July 2000) Road Safety Fund with the objective of implementation of road safety measures in the State. The Fund constituted out of the proceeds of spot fine and compounding fee collections of the Police and Transport departments is administered by an Inter Departmental Committee formed with the Secretary to Home Department as the Chairperson, Road Safety Commissioner as the Member-Secretary and nine<sup>1</sup> members.

#### **2.1.1.5 Statutory arrangements**

The Motor Vehicles Act, 1988 and the Tamil Nadu Motor Vehicle Rules, 1989 provide the legal and regulatory framework for enforcement.

Indian Roads Congress (IRC) has developed the standards, methods and mechanisms of road safety for all the stakeholder departments and road users.

Hon'ble Supreme Court's Good Samaritan Guidelines and directions of the Supreme Court Committee on Road Safety form part of the principles or provisions of road safety in India.

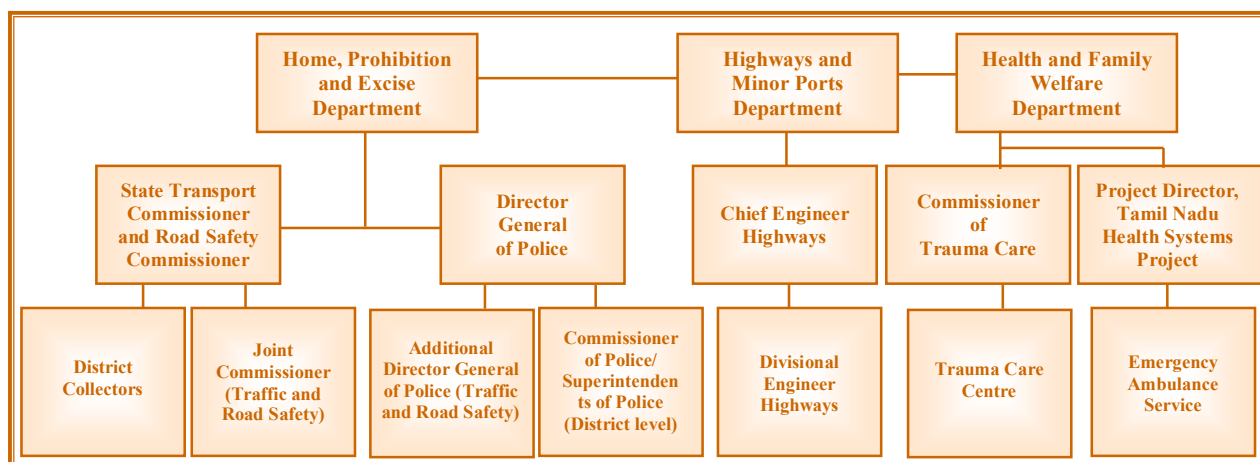
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<sup>1</sup> Inspector General of Police (Law & Order), Commissioner of Police, Commissioner of Greater Chennai Corporation, Member Secretary of Chennai Metropolitan Development Authority, Chief Engineer/National Highways, Chief Engineer/Highways & Rural Roads, Managing Director of Chennai Metropolitan Transport Corporation, Managing Director of State Express Transport Corporation and Secretary of Finance Department.

## 2.1.2 Organisational structure

The Transport Commissioner, who is the ex-officio Road Safety Commissioner (RSC) coordinates road safety measures in the State. Transportation planning is the responsibility of Chennai Metropolitan Development Authority and Local Planning Authorities in districts. Highways Department and Urban and Rural Local Bodies construct and maintain roads. The Director General of Police heads the traffic planning and enforcement tasks of the Police Department. The Mission Director, State Health Society, who is the ex-officio Commissioner of Trauma Care, coordinates trauma care services to accident victims. An organisation chart is given in **Exhibit 2.1**.

**Exhibit 2.1: Organisation Chart**



## 2.1.3 Audit objectives

The objectives of audit were to assess whether:

- planning for enforcing road safety measures on Education, Emergency care, Enforcement and Engineering and achieving the objectives of Road Safety Policy of Tamil Nadu was comprehensive;
- the initiatives planned for road safety measures were implemented as per the provisions of the Acts and Rules in force and as per Tamil Nadu Road Safety Policy, 2007;
- adequate funds were provided and released to implement the plans under road safety measures and whether funds so provided were utilised in conjunction with the stated objectives; and
- the monitoring system was effective in achieving the road safety policy of reduction in road accident fatalities and injuries and in ensuring road safety at various levels.

### 2.1.4 Audit criteria

The audit findings were bench-marked against the following sources:

- The Motor Vehicles Act, 1988, the Central Motor Vehicles Rules, 1989 and the Tamil Nadu Motor Vehicles Rules, 1989;
- Road Safety Policy of Government of Tamil Nadu formulated in 2007;
- Indian Road Congress specifications on road engineering;
- Codal provisions, Orders, Circulars and instructions of competent authorities;
- Tamil Nadu Road Safety Fund Rules, 2000 and
- Tamil Nadu Motor Vehicles Taxation Act, 1974.

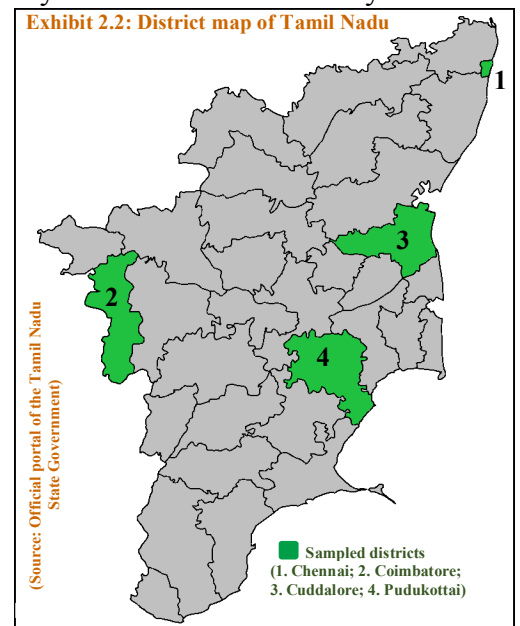
### 2.1.5 Scope and methodology

The Performance Audit was conducted from March to August 2018 covering the activities relating to road safety, carried out by departments of Health and Family Welfare; Highways and Minor Ports; and Home, Prohibition and Excise and selected field offices (**Appendix 2.1**) in the four sampled districts<sup>2</sup> out of 32 districts covering the period 2013-18. An Entry Conference with the related departments was conducted on 27 June 2018, wherein the audit objectives, scope and methodology were discussed. The audit findings were discussed in an Exit Conference with the Principal Secretary to Government, Home Department on 11 December 2018. GoTN furnished a detailed reply on 10 December 2018. GoTN's reply and responses in the Exit Conference were duly considered while drafting the Report.

The Audit methodology included collection and examination of information from the records of Auditee institutions, analysis of data furnished by the auditee, including the data extracted from computerised database. Along with departmental officers, the Audit teams conducted joint physical verification of various roads, driving schools, tracks used for testing the driver's skill and hospitals with trauma care facility in the sampled districts.

#### Sampling process

Four out of thirty two districts viz., Chennai, Coimbatore, Cuddalore and Pudukottai, were sampled (**Exhibit 2.2**) using data analytics tool. The sample selection process is given in **Appendix 2.2**.



<sup>2</sup> Chennai, Coimbatore, Cuddalore and Pudukottai.

## Audit Findings

### 2.1.6 Outcome of road safety programmes

The data on road accidents is an indicator of the outcome of the road safety programmes. The Road Safety Policy, *inter alia*, envisages improvement to the system of accident data collection and to pursue the policy of computerisation and centralisation also of data relating to vehicles, drivers, road conditions, load impact, crash details, etc.

One of the objectives of the Road Safety Policy, 2007 was the reduction of road accidents by 20 *per cent* by 2013 taking 2006 as the base year. GoTN committed (April 2017) an action plan to the Supreme Court Committee on Road Safety for gradual reduction of road accidents by 15, 17 and 18 *per cent* in 2017, 2018 and 2019 respectively to achieve the envisaged reduction by 50 *per cent* in 2020 with base year as 2015. The increase in 2017 *vis-à-vis* 2006 in number of road accidents (19 *per cent*), fatalities (47 *per cent*) and accident severity<sup>3</sup> (five *per cent*) paints a grim picture of road safety in the State.

#### 2.1.6.1 Non-achievement of target for reducing road accidents

Taking 2015 as the base year, the Sustainable Development Goals (SDG) of the United Nations aims for 50 *per cent* reduction in the fatalities due to road accidents by 2020. The Road Safety Policy, 2007 targeted to reduce road accidents and fatalities by 20 *per cent* by 2013 taking 2006 as the base year. It was, however, noticed that the number of road accidents was actually on the increase but the accident as a proportion to vehicle population and road length registered a marginal decline (**Table 2.1 and Chart 2.2**).

**Table 2.1: Number of road accidents and fatalities in the State**

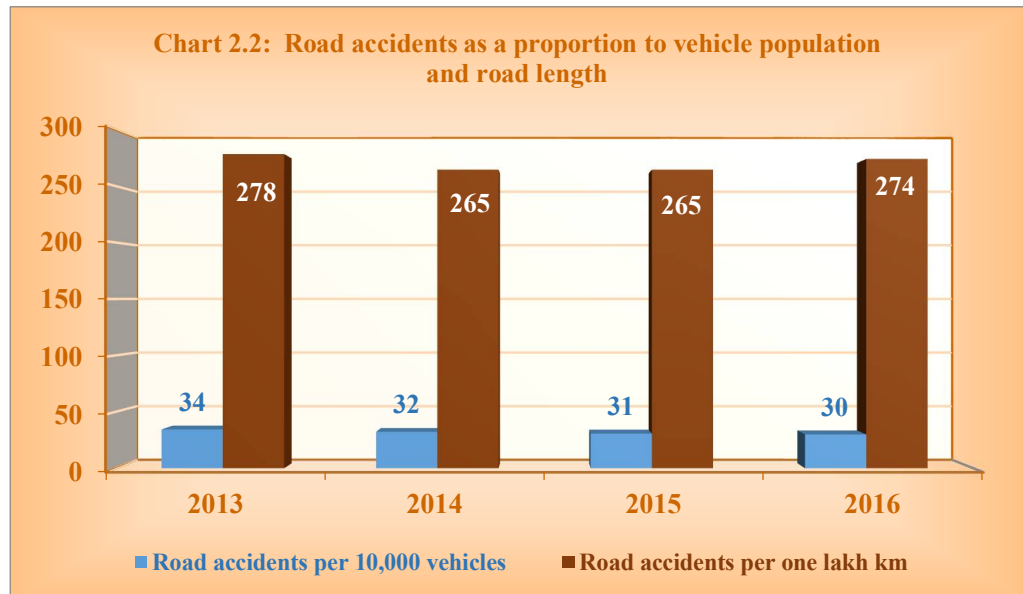
2006			Target for 2013		Actual 2017			Increase with reference to 2006			Increase with reference to target	
Number	Fatality	Accident severity (in <i>per cent</i> )	Number	Fatality	Number	Fatality	Accident severity (in <i>per cent</i> )	Number	Fatality	Accident severity (in <i>per cent</i> )	Number	Fatality
55,145	11,009	20	44,120	8,800	65,562	16,157	25	10,417 (19)	5,148 (47)	5	21,442 (49)	7,347 (84)

Figures in brackets indicate percentage

(Source: State Crime Record Bureau Data)

<sup>3</sup> Accident severity is the percentage of number of fatalities to number of road traffic accidents.





(Source: Ministry of Road Transport and Highways, New Delhi - Report on Road Accident in India - 2016 and 2017)

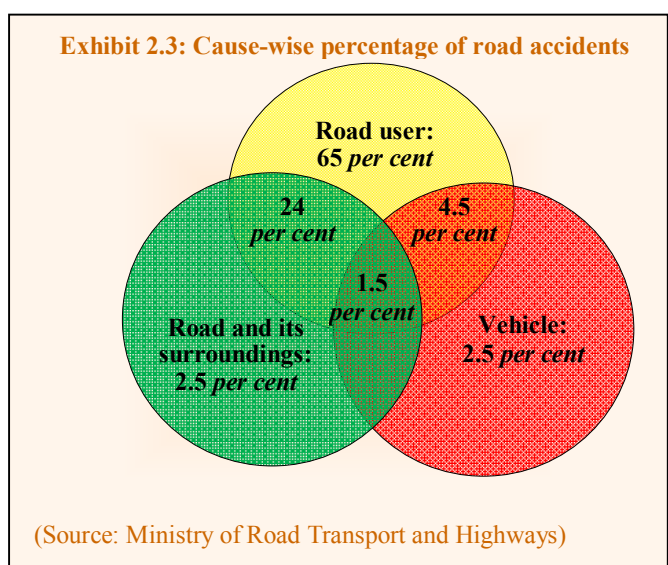
As could be seen from **Table 2.1** and **Chart 2.2**, not only the target set in the Road Safety Policy was not achieved, the actual number of accidents and fatalities has gone up, indicative of lacunae in implementing road safety measures. Considering the past performance, Audit observed that there would be possible slippages in achieving the SDG targets set for 2020 also. GoTN, while accepting (December 2018) the data on fatalities pertaining to 2017, stated that during January to October 2018, the fatalities stood at 10,378 indicating falling numbers in fatalities. The reply is not acceptable as part year data of 2018 cannot be compared with the full year data of 2017.

### 2.1.6.2 Accident data

#### (a) Cause-wise accidents

Causes for accidents in the country are negligent driving, over speeding, drunken driving, vehicle faults, animal crossing, lack of road infrastructure, parking on Right of Way, bad weather, pedestrian crossing, passengers fault and other conditions (**Exhibit 2.3**).

Cause-wise details of number of fatal accidents, number of accidents causing grievous/minor injury during 2013-18, compiled by Audit are given in **Table 2.2**.



**Table 2.2: Cause-wise accidents Tamil Nadu**

Types of causes	Fatal		Grievous injury		Minor injury		Non-injury	Total	In per cent
	No. of accidents	Nos. killed	No. of accidents	No. of persons	No. of accidents	No. of persons	No. of accidents	No. of accidents	
Negligent driving*	718	840	637	559	1,800	3,904	126	3,281	77.11
Over-speeding	53,777	59,542	41,176	39,963	1,49,766	2,66,919	6,852	2,51,571	
Drunken Driving	106	130	82	48	171	405	26	385	0.12
Vehicle fault	60	79	54	55	148	426	86	348	0.11
Lack of road infrastructure#	122	138	88	75	238	441	21	469	0.14
Parking on ROW	43	53	35	27	128	269	23	229	0.07
Other causes@	13,965	15,094	16,445	16,404	41,167	69,172	2,645	74,222	22.45
<b>Total</b>	<b>68,791</b>	<b>75,876</b>	<b>58,517</b>	<b>57,131</b>	<b>1,93,418</b>	<b>3,41,536</b>	<b>9,779</b>	<b>3,30,505</b>	<b>100.00</b>

\* Includes aggressive driving, disregarding traffic controls, failure to signal, failure to yield right of way, unsafe lane changing, impaired driving, overloading, sudden braking, tailgating and talking on mobile phone while driving.

# Defect in road condition, neglect of civic bodies and poor lighting conditions.

@ Bad weather, cause not known, falling of boulders, fault of cyclist and unknown or not entered.

(Source: Details compiled from Road Accident Data Management System (RADMS))

Seventy seven *per cent* of the accidents in the State during 2013-18 was reportedly due to ‘rash/negligent driving’. Audit reviewed all the 265<sup>4</sup> First Information Reports (FIRs) in the sampled police stations, where ‘rash/negligent driving’ was reported as the reason and the review revealed that 149 of these accidents were caused by reasons other than ‘rash/negligent driving’, viz., (i) improper pedestrian crossing, (ii) animal crossing, (iii) blind curve, (iv) vehicle fault, (v) avoiding big crater, etc. This indicated that the reasons recorded for accidents were not correct and hence there is a need for more accurate reporting of the cause of accidents, instead of clubbing it under rash/negligent driving. Such inappropriate reporting prevents taking up of remedial action including those where road engineering works are required.

**(b) Vehicle-wise accidents**

Accidents when classified according to type of vehicles revealed that during 2013-18, 45 *per cent* of accidents were caused by motor cycles followed by pedestrians (19 *per cent*) as given in **Table 2.3**. The data shows that efforts to reduce accidents should focus on the safety of two wheeler riders and pedestrians.

<sup>4</sup> 146 in Chennai, 55 in Coimbatore, 42 in Cuddalore and 22 in Pudukottai districts.

Table 2.3: Vehicle-wise accidents

Year	Auto-rickshaw	Bus	Car/Jeep/Van/Taxi	HGV	Tempo/Tractor	MC	Pedestrians	Total
2013-14	2,873	7,872	17,678	7,836	984	40,514	19,921	97,678
2014-15	3,164	7,342	16,448	7,647	892	43,010	18,475	96,978
2015-16	3,211	8,382	18,744	7,484	914	46,776	20,699	1,06,210
2016-17	2,940	7,184	18,047	6,885	875	47,980	19,215	1,03,126
2017-18	2,808	6,349	16,902	6,134	954	45,186	18,238	96,571
<b>Total</b>	<b>14,996</b> (3)	<b>37,129</b> (7)	<b>87,819</b> (18)	<b>35,986</b> (7)	<b>4,619</b> (1)	<b>2,23,466</b> (45)	<b>96,548</b> (19)	<b>5,00,563</b>

HGV: Heavy Goods Vehicles; MC: Motorcycles

Figures in brackets indicate the percentage to the total number of accidents.

(Source: Details compiled from RADMS)

### (c) Inaccuracies in accident data

Acknowledging that accident data is crucial to address road safety problems, GoTN in its Road Safety Policy, 2007, proposed to improve the system of accident data collection and pursue computerisation and centralisation of data relating to vehicles, drivers, road conditions, load impact, crash details, etc. While the centralised data relating to vehicles and drivers (*Parivahan*) are maintained by GoI, Ministry of Road Transport and Highways, data on road accidents are captured in Road Accident Data Management System (RADMS) of the Police Department. RADMS is a robust database, well customised to the needs of Police Department in handling road accident data. It is a very effective management tool in planning and implementing measures to reduce road accidents.

Audit, however, noticed the following inaccuracies in the RADMS data, which compromised its utility:

- After road accidents, the Police file FIR. The FIR details initially captured in the State Crime Record Bureau (SCRB) database are again entered in RADMS. Audit noticed that FIRs would not be filed in accidents where the parties involved reconcile amicably. In those cases, the Police make entries in the Community Service Register<sup>5</sup> (CSR) and provide a copy of the CSR to the parties involved in a road accident to facilitate claiming of third party insurance. FIRs were not filed in those cases. Further, Audit also noticed that there were shortfall in entering in RADMS database. During 2013-18, 4,259 FIRs were not captured in RADMS, evidently due to omissions in data entry. Thus, due to the CSR not being captured in RADMS and omissions in capturing FIRs in RADMS, the number of accidents in the State was understated by as

<sup>5</sup> All complaints lodged by public on alleged crime are entered in CSR. After initial enquiry by Police, if the case is found to be a cognizable offence, FIR is filed by Police.

much as 47 per cent in Chennai District and to an extent of three to nine per cent in the other three sampled districts (Table 2.4).

**Table 2.4: Details of accidents not entered in the RADMS during 2013-18**

District	As per CSR	As per FIR	Total number of accidents	Total number of accidents as per RADMS	Under reporting of RADMS data*
Chennai	30,050	41,241	71,291	37,508	33,783 (47.39)
Coimbatore	948	12,221	13,169	12,193	976 (7.41)
Cuddalore	1,323	18,406	19,729	17,943	1,786 (9.05)
Pudukottai	170	6,330	6,500	6,295	205 (3.15)
<b>Total</b>	<b>32,491</b>	<b>78,198</b>	<b>1,10,689</b>	<b>73,939</b>	<b>36,750</b>

\* Figures in brackets indicate the percentage to the total number of accidents  
(Source: CSR data, RADMS and State Traffic Planning Cell)

- Scrutiny of CSR in 45 out of 105 police stations during 2013-18, disclosed that three fatal road accidents with three fatalities<sup>6</sup> were included in the CSR. Non-filing of FIRs even in the case of fatal accidents was a matter of serious concern. The Police Department did not furnish any response to this finding.

GoTN stated (December 2018) that instructions were issued to file FIR in all cases of road traffic accidents (RTA) so as to ensure accuracy in RADMS data.

## **2.1.7 Planning**

The TN Road Safety Policy, 2007 envisages (i) improving the data collection process for reliable information, (ii) providing safe road infrastructure for ensuring safe driving and safety of vulnerable road users, (iii) strengthening institutional and financial mechanism and (iv) effective enforcement measures. The Policy also enjoins upon the departments viz., Health, Highways, Police and Transport, to formulate specific measures and take appropriate action to achieve the policy objectives.

### **2.1.7.1 Functioning of State Road Safety Council**

The SRSC was to (i) review the statistics relating to traffic accidents in the State and analyse the same with reference to black spots, (ii) review the action taken by the authorities of the Transport Department, (iii) look into road engineering and (iv) look into educational awareness programme for the people and also the work towards the objective of reducing road accidents and such other issues related to road safety measures.

- While Tamil Nadu drew up a Road Safety Policy and put in place an institutional framework, there was a lack of a comprehensive plan with milestones for achieving the strategies in place to make

<sup>6</sup> Royapuram, St. Thomas Mount and Washermanpet Traffic Investigation Police Stations in Chennai District.

roads in Tamil Nadu safer for road users. The Road Safety Policy had a mission, vision and a target for reduction in the number of accidents. However, there was a requirement to draw up micro-plans centered on the four E's viz., Enforcement, Education, Engineering and Emergency Care. The Road Safety Council and the District Road Safety Committees met intermittently. It was noticed from the minutes of SRSC that the departments did not draw up their sub-plans with objectives for improvement in functioning of the areas under their jurisdictions. No plans for inter-departmental coordination were evident. The meeting of the District Road Safety Committees did not set targets on an annual basis for improvement in road infrastructure, creation of awareness among two-wheeler riders, pedestrians who account for the maximum number of accidents and also fatalities. The minutes of the meetings indicated directives for actions to be taken; however, the minutes of subsequent meetings lacked any indication of accountability and reporting in detail on the follow up action taken. Thus, there was a need for a comprehensive Road Safety Plan in line with the TN Road Safety Policy with micro-plans both at the departmental and geographical unit levels, with committed resources to achieve the mission goals of the TN Road Safety Policy.

- Review of the TN Road Safety Policy was also one of the objectives of SRSC. The target fixed in the TN Road Safety Policy viz., reduction of road accidents by 20 *per cent* by 2013 taking 2006 as the base year was not achieved. Further, as per the commitment given (April 2017) to the Supreme Court Committee on Road Safety and as per the SDGs of the United Nations, the number of accidents are to be reduced by half between 2015 and 2020. These new goals make it necessary to review the TN Road Safety Policy. But, this was not done as of October 2018 for the last 11 years.

GoTN replied (December 2018) that a draft of revised Road Safety Policy was under consideration.

### **2.1.7.2 Home (Transport) Department**

#### **(a) Planning by Inter Departmental Team**

GoTN ordered (October 2007) the constitution of an Inter Departmental Team (IDT) comprising officers from Departments of Home (Police), Transport and Highways. Immediately on occurrence of a fatal road accident, the IDT was to visit the accident spot, make a comprehensive study from different angles, prepare a detailed report after critically analysing the data and suggest preventive measures to avert such incidents in future. The IDTs were, however, not formed in any of the districts. No action was initiated by the RSC and District Collectors to form the team despite orders of GoTN in 2007. In the absence of IDT, the 75,876 RTA fatalities that occurred in the State

during 2013-18 were not studied to frame a micro level plan to correct deficiencies in road engineering, signage, encroachment etc. The RSC did not furnish any reasons for not forming the IDT. GoTN replied (December 2018) that suitable instructions were issued in this regard.

**(b) Road safety awareness campaign**

The TN Road Safety Policy stressed on undertaking of vigorous safety campaigns and to follow it up with effective enforcement as per statutes. During 2014-18, the RSC released ₹ 4 lakh to each district for creating awareness among public about road accidents. Road Safety Week was also observed during the first week of January every year and road safety messages were broadcast through FM channels. Police, Regional Transport Officers, Chief Educational Officer and Tamil Nadu State Transport Corporations conducted road shows about road safety by issuing pamphlets.

GoTN and the Inter Departmental Committee (IDC) on Road Safety decided (2015) for screening short films on road safety in movie theatres across the State. Though seven short films on road safety were produced, they were not screened in theatres in the sampled districts. The District Collector, Cuddalore replied to Audit that as the theatres had moved on to a different technological platform (Qube technology<sup>7</sup>) for screening movies, the short films supplied to movie theatres in CD format were not screened. No further action was taken on this issue. The Superintendents of Police, Coimbatore and Pudukottai replied that action will be taken to screen short films on road safety. The reply was not acceptable as Audit observed that GoTN failed to put in place an effective system to create awareness by harnessing the power of diverse and popular digital and social media. The RADMS data also indicated that the maximum number of accidents and deaths took place among two-wheeler users and in the age group of 26-40. The data on poor usage of helmets also point to a need for targeting awareness among the youth and in educational institutions for safe driving and use of helmets.

**2.1.7.3 Home (Police) Department**

**(a) State Traffic Planning Cell**

GoTN formed (2005) the State Traffic Planning Cell (STPC) with an Additional Director General of Police (ADGP) as the head. As per the mandate, STPC is responsible for (i) planning road safety measures, (ii) coordinating with various NGOs/other agencies, (iii) procuring road safety equipment and materials and (iv) studying traffic problems in major cities, etc. Audit, however, noticed that ADGP, STPC had no technical manpower to support him and as a result STPC either played only a limited role or had no role in procuring road safety materials, studying traffic problems, preparing area specific plans for traffic improvement, coordinating with NGOs to promote awareness, etc.

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<sup>7</sup> A digital technology to distribute movies from digital servers located at a distance, and differs from the conventional method of sourcing from media such as film rolls, CDs, etc.

Though GoTN accepted (November 2008) the recommendations (2008) of the Tamil Nadu Third Police Commission for additional staff to STPC, DGP's proposal (2009) for sanction of 17 posts<sup>8</sup> was not approved. Scrutiny of files disclosed that GoTN instructed (March 2016) DGP to reduce the staff requirement. But, DGP's revised proposal for 14 staff (March 2016) was also rejected (June 2017) by the Government without citing any reasons. As a result, the objective of forming STPC was not met and its envisaged functions viz., monitoring Highway Patrol Teams (HPTs), planning for provision of signals and CCTV cameras, preparing area specific plans for traffic improvement, etc., were not carried out.

Audit noticed that GoTN frequently shifted the ADGPs heading STPC. During the 13 year period of 2005-18, 12 officers occupied the post of ADGP, STPC except for one officer who held the office for four years, the average tenure of the other 11 officers was just ten months. Thus, GoTN itself stymied the functioning of the STPC, which was intended to play a critical role in the functioning of the traffic wing of the Police.

**(b) System to penalise repeat offenders**

Section 208 of the Motor Vehicles Act, 1988 read with Rule 164 of the Central Motor Vehicles Rules, 1989 provides for endorsing driving licence by Courts in respect of nine types of traffic offences/violations. In September 2006, Transport Commissioner proposed for introduction of smart card based driving licence, *inter alia* to identify repeat offenders. In October 2007, GoTN introduced Smart Card based Driving Licence (DL) and vehicle Registration Certificates (RC) in three Regional Transport Offices<sup>9</sup> on pilot basis. The smart card DL and RCs digitally capture biometrics, photographs, signatures, etc., of individual licence/permit holders in non-erasable but updatable form. It also facilitates a permanent audit trail and prevents tampering. It was envisaged to equip Police and Transport officers with hand held terminals to enable quick access to DL and RC databases maintained by Transport Department. Satisfied with the pilot project, GoTN decided (May 2010) to roll out the smart card DL and RC throughout the State. The RSC entrusted (April 2013) the work through tender process to a consortium<sup>10</sup> for a total value of ₹ 293.72 crore. The work, however, did not commence as it was embroiled in legal wrangles initiated by aggrieved bidders and was under stay orders (July 2013) of the Hon'ble Madras High Court. On vacation of the stay order in August 2017, considering the developments that took place in the technological and administrative structure, it was decided (December 2017) to go in for another round of negotiation with the original vendor. The matter was pending as of September 2018.

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<sup>8</sup> Deputy Superintendent of Police: one, Inspector: one, Sub Inspector (Technical): three, Superintendent: one, Sub Inspector: two, Grade II Driver: four and ministerial staff: five.

<sup>9</sup> Regional Transport Offices Chennai (South), Cuddalore and Sivagangai.

<sup>10</sup> Comprising M/s Bon Ton Softwares Private Limited and M/s M Tech Innovations Limited.

Thus, the long drawn legal action apart, even after the vacation of Court order staying the award of contract, the technically advanced and state of the art tool for ensuring road safety through effective enforcement, was yet to be initiated (September 2018). In the absence of a system to identify repeat offenders through smart card based technology, Audit noticed that all traffic offences were treated as first offence. To a specific Audit enquiry, the SP, Coimbatore replied that the matter would be taken up with the DGP. Also, in the absence of details, Audit could not verify the repeat offenders who deserved stringent penal action for repeat violations.

With a suitable database in place, identification of repeat offenders and levying of fines at appropriate higher rates for the second and subsequent offences would have been easier. Audit observed that the deterrent nature of enforcement was diluted.

**(c) Non-revision of amount of spot fines and systemic issues**

In 1992, GoTN introduced the system of spot fines in Chennai City and extended it to cover the cities of Madurai and Coimbatore in 1995. Later in 2000, while extending it to Tiruchirappalli, GoTN revised and doubled the rate of spot fine. Thereafter, the rate of spot fine was not revised. In August 2019, GoI amended the Motor Vehicles Act and increased the fines for traffic violations. GoTN, however, has not amended spot fines. In December 2011, GoTN extended the system of spot fine for traffic violations to all districts in the State and

prescribed two slabs of spot fines viz., lower rate for first time offenders and higher rate for repeat offenders. As per the orders, while Sub Inspectors of Police and above were authorised to collect spot fines in cities, in rural areas only Inspectors of Police and above were authorised to collect spot fines.

Non-revision of the rates of spot fine for nearly 18 years, i.e., after January 2000, together with non-identification of repeat offenders failed to help address the problems of vehicular accidents on roads and deter traffic violators as could be seen from the large number of cases reported every year.

**Case study of Traffic enforcement in Maharashtra**

*Maharashtra had the highest vehicular population (2.98 crore against 2.34 crore in Tamil Nadu as of 2016-17). The State, however, ranked well below Tamil Nadu in terms of road accidents and fatalities. Major difference in enforcement was higher rate of fines and authority to Police Constables to collect spot fines.*

Sl. No.	Category of Offence	Amount of fine* (₹)	
		Tamil Nadu	Maharashtra
1	Failure to produce Driving licence	100	200
2	Without Insurance	500	2,000
3	Without Helmet	100	500
4	Using mobile phone while driving	100	200
5	Not using seat belt while driving	100	200
6	Racing/speed test violations	500	2,000
7	Speed violations	400	1,000
8	Without fitness certificate	100	2,000

\* For first offence

(Source: Notifications of Government of Maharashtra and Government of Tamil Nadu)



GoTN, while admitting (December 2018) the lack of system to identify repeat traffic offenders, stated that action was being taken to issue Smart Card licences with bio-metric facilities to address this issue.

#### 2.1.7.4 Highways Department

##### *Lack of detailed plan for road furniture*

Road furniture<sup>11</sup> help to reduce accidents and improve traffic flow conditions. Apart from signals, IRC specifications provide for road markings, sign boards, railings, speed breakers and other caution boards to be provided by the Highways Department/local bodies on the roads under their jurisdiction.

Audit noticed that, the Highways Department/local bodies did not plan for including road furniture in any of the 67 test-checked detailed estimates out of 4,469 road work estimates undertaken in the sampled districts during 2013-18. In the estimates for road relaying, road strengthening, etc., except under Comprehensive Road Infrastructure Development Programme (CRIDP) launched from 2016-17<sup>12</sup>, two *per cent* of the estimate was provided as lumpsum towards road furniture. Scrutiny of 26 estimates wherein two *per cent* was provided as lumpsum towards road furniture disclosed that the allotted amount was insufficient to meet even the expenditure on road markings. This observation was substantiated by the reply of Executive Engineer, Cuddalore that the lumpsum provision of two *per cent* was insufficient. The Executive Engineer, Pudukottai replied that based on Chief Engineer's instructions, separate estimates would be prepared for road furniture from 2018-19. Lack of comprehensive plan prevented provision of adequate road safety furniture.

GoTN replied (December 2018) that in respect of National Highways (NH) the estimate of road furniture was not restricted to two *per cent* and that in respect of other roads, needy locations of the roads were prioritised for providing road furniture keeping in mind the budgetary constraints.

#### 2.1.8 Traffic Enforcement

As per the RADMS data, driver error was a major cause of road accidents. Consequently, (i) effective enforcement of traffic rules for ensuring road discipline by all road users and (ii) promotion of properly equipped Regional Transport Offices/Unit Offices/driving schools gain much importance. An efficient and comprehensive traffic management system with accurate and reliable data collection can be utilised for the specific objectives of traffic law enforcement. Further, adequate manpower, infrastructure *viz.*, signals and CCTV cameras, highway patrolling, etc., also become indispensable for traffic law enforcement. Deficiencies noticed in this regard are discussed in the succeeding paragraphs.

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<sup>11</sup> Including thermo plastic road markings, reflector units, overhead gantry boards, raised pavement markers, signals, railings, speed bumps, rumpers, solar delineators, solar studs (solar powered reflective road surface marking), sign boards, guideposts, etc.

<sup>12</sup> Roads re-laid under CRIDP had separate estimates for road furniture.

### **2.1.8.1 Lapses in ensuring driver quality**

#### **(a) Manual testing track**

Drivers of motor vehicles are primary users of roads. Proper evaluation of driving skills of an individual applying for driving licence is of paramount importance in road safety. Quality driving schools, stringent driving tests are pre-requisites for ensuring competence of drivers before issue of driving licences. In order to qualify for driving licence, the applicant has to pass an online test on road signals and a driving test on a testing track. The testing tracks were required to have ‘S’ bends, ‘H’ bends, gradients, road signage, etc. Availability of a well designed and maintained testing track is a pre-requisite for administering proper driving test.

Audit noticed that 47 out of 86 Regional Transport Offices (RTO) in the State did not have a formal testing track with required features such as ‘S’ bends, ‘H’ bends, gradients, road signages, etc. Similarly, 53 out of the 59 Unit Offices (UO) of RTOs also did not have formal testing tracks.

#### **Good Practices**

Out of the four RTOs/UOs with designated testing tracks, in Pollachi and Virudhachalam, the tracks were maintained in good condition (Exhibit 2.4).

**Exhibit 2.4: Well maintained Testing Track at RTO, Pollachi, Coimbatore District**



Joint physical verification disclosed that in the sampled districts, eight<sup>13</sup> out of the 12 RTOs and UOs did not have formal testing track. In the eight informal testing tracks in the sampled districts, ‘S’ bends and ‘H’ bends were formed by placing tyres and the tracks did not have any gradients or traffic signages (Exhibit 2.5). Audit observed that informal practices in administering driving test would be detrimental to the objective of ensuring the quality of drivers and would adversely impact road safety.

<sup>13</sup> Four in Chennai, two in Coimbatore and one each in Cuddalore and Pudukottai.



**Exhibit 2.5: Informal testing track**  
**RTO, Meenambakkam, 28 March 2018**  
(Source: Joint physical verification)

Audit also noticed that in the sampled RTOs, no proposal for construction of testing track was under consideration even as construction of 13 computerised testing tracks was yet to be completed (**Paragraph 2.1.8.1 (b)**). The lapse of the Transport Department in ensuring driver quality/driver testing is a serious failure and needs immediate attention.

**(b) Computerised testing track**

With a view to introduce scientific methods and latest technology in conducting driving tests, GoTN sanctioned (January 2014) ₹ 10 crore for Computerised Testing Tracks in 14 out of the 86 RTOs in the State. The Computerised Testing Track assesses the candidate's performance automatically based on pre-assigned criteria and records the test in a video file for each test.

After more than four years of sanction, as of March 2018, the project was completed only at RTO, Karur and inaugurated in May 2018. Among the sampled districts, the project sanctioned for RTO, Cuddalore did not progress after spending ₹ 13.65 lakh on civil works as the tender for electrical works was cancelled in 2017 due to non-allotment of funds and no further action was taken.

**(c) Lack of rigorous testing process for licensing**

As per RADMS data, driver errors contribute to 77 per cent of the accidents as a result of rash/negligent driving. Thus, accidents can be reduced by ensuring quality of the drivers through a rigorous process of testing for issue of driving licence. Introduction of a more effective and efficient licensing procedure is one of the strategies envisaged by the Tamil Nadu Road Safety Policy to check the competency of drivers. Audit scrutiny of the licensing process disclosed lacunae in the process as discussed below:

- **Shortage of Motor Vehicle Inspectors:** In 1992, the Transport Commissioner fixed the number of candidates to be tested per day by each Motor Vehicles Inspector (MVI) as 20. In addition to administering track testing of licence seekers, MVIs responsibilities include inspection of motor vehicles for registration and renewal, inspection of vehicles for Fitness Certificate, on road enforcement of the MV Act, inspection of Driving Schools, etc. During field visits, based on the work allotment of MVIs, Audit observed that each MVI spent approximately four hours every day for conducting driving tests, which meant an average of 12 minutes<sup>14</sup> for testing each candidate so as to cover 20 candidates per day. There were 26 Men-in-position as against sanctioned strength of 34. Audit calculated the requirement of MVIs based on the norm of 20 tests per day per MVI and found that as against the normative requirement of 32 MVI in the 12 sampled RTOs, there was a net shortage of six MVIs in six RTOs, after adjustment of three surplus MVIs of three RTOs (Table 2.5).

**Table 2.5: Calculation of shortage/surplus of MVIs based on 20 tests per day**

District	Test-checked RTOs	No. of MVIs (03/18)		Licenses issued in 2017-18	Actual tests per MVI/ annum (Col 5/Col 4)	Shortage/ Surplus (As per norm <sup>15</sup> - MIP Col 4)
		SS	MIP			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Chennai	Tambaram	2	2	16,689	8,344	<b>Short - 1</b> (As per norm 3-MIP 2)
	KK Nagar	6	4	36,626	9,156	<b>Short - 4</b> (As per norm 8 -MIP 4)
	North	4	3	17,251	5,750	<b>Short - 1</b> (As per norm 4 -MIP 3)
	Meenambakkam	2	2	20,146	10,073	<b>Short - 2</b> (As per norm 4 -MIP 2)
Coimbatore	North	5	4	13,804	3,451	Surplus - 1 (As per norm 3 -MIP 4)
	South	3	3	9,567	3,189	Surplus - 1 (As per norm 2 -MIP 3)
	Pollachi	3	2	6,548	3,274	Surplus - 1 (As per norm 1 -MIP 2)
Cuddalore	Cuddalore	4	2	9,640	4,820	0
	Panruti UO	1	1	4,013	4,013	0
	Virudhachalam UO	1	1	7,251	7,251	0
Pudukottai	Pudukottai	2	1	10,869	10,869	<b>Short - 1</b> (As per norm 2 -MIP 1)
	Illupur UO	1	1	5,264	5,264	0
	<b>Total</b>	<b>34</b>	<b>26</b>	<b>1,57,668</b>	<b>-</b>	<b>Short -6</b>

UO: Unit Office

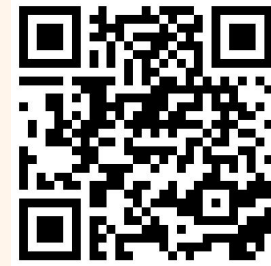
(Source: Data furnished by RTOs)

<sup>14</sup> (4 hours \* 60 minutes) / 20 candidates.

<sup>15</sup> Based on 4,640 tests per annum calculated at 20 tests per day for 232 working days per annum.

- Further, in two of the 12 sampled RTOs, the number of tests administered by MVI exceeded 40 per day and in another six RTOs, it was between 20 and 40 per day. This indicated a need to rationalise the manpower distribution in the RTOs.
- **Reduced test duration:** In March 2007, the Transport Commissioner drastically reduced the duration for driving test to 4, 8 and 12 minutes per test in respect of two wheelers, Light Motor Vehicles and Transport vehicles<sup>16</sup> respectively. Audit observed that the reduction of duration of test was, *inter-alia*, to facilitate clearance of backlog in driving licence applications and was a serious compromise on the quality of the test which involved verification of application, ensuring identity of the applicant and watching the competency of the applicant on the test track, which included specified manoeuvres<sup>17</sup>. During field inspection in two RTOs<sup>18</sup>, Audit found, that on the days of visit<sup>19</sup>, the MVIs took 29.06 minutes to test 57 candidates for two wheeler licence which works out to an average of 30 seconds per test for two wheeler licences (**Video 2.1**). Assessing the applicant's competence within 30 seconds raises a doubt on the efficacy of the tests. Thus, reduction in the duration of the test was not a justifiable strategy for clearance of backlogs.
- **Computerised testing tracks:** Audit found further evidence of the poor quality of testing of candidates applying for driving licence. In RTO, Karur, after launch of Computerised Testing Track, the pass percentage of driving licence applicants in the driving test came down drastically from a monthly average of about 95 *per cent* to 64 *per cent* (**Table 2.6**).

Video 2.1: Scan for video showing lack of rigorous testing process



<sup>16</sup> This was again revised (October 2007) to 4, 10 and 15 minutes per test in respect of two wheelers, Light Motor Vehicles and Transport vehicles.

<sup>17</sup> Driving on 'H' and 'S' bend tracks, gradients, observance of signalling, reverse driving, parking on designated place, etc.

<sup>18</sup> RTO, Meenambakkam and RTO, Tambaram where driving tests of 57 candidates were videographed by the Audit Team in the presence of Departmental officers.

<sup>19</sup> 28 March and 7 April 2018.

**Table 2.6: Fall in success rate in driving test after computerisation**

Month and Year	Number of applicants	Numbers passed	Pass percentage
<b>Before computerisation</b>			
June 2017	540	520	96.30
July 2017	440	410	93.19
August 2017	360	345	95.84
September 2017	300	282	94.00
October 2017	528	500	94.70
November 2017	545	523	96.00
<b>After computerisation</b>			
June 2018	202	123	60.90
July 2018	256	163	63.68
August 2018	247	160	64.78
September 2018	245	161	65.72
October 2018	246	161	65.45
November 2018	237	156	65.83

(Source: Details furnished by Road Safety Commissioner)

- The fall in pass percentage in driving tests in the automated environment, indicated the liberal issuance of driving licence in the manual system, in vogue in all the RTOs across the State. It is indicative of a highly substandard quality of manual testing. More number of Computerised Testing Tracks will ensure that drivers who obtain driving licences are cleared only after stringent quality tests. GoTN replied (December 2018) that Computerised Testing Tracks will be established in all RTOs in due course.

#### Best practices in driver testing

**New Zealand:** Driver testing is done in three stages. After clearing a theory test, the Learner Licence is issued. The second stage is restricted licence, which requires passing a 60 minutes practical test, including 45 minutes of drive time. The third stage is full licence, which requires passing a 30 minutes test including 20 minutes of driving.

**The United Kingdom:** Testing is done in two stages as in India. The theory part is multiple choice questions on Highway Code and vehicle safety. The practical driving test is conducted for 40 minutes.

- **Testing infrastructures:** The prescribed tests under Rule 15(3) of the Central Motor Vehicles Rules, 1989 viz., (i) driving downhill, (ii) driving on a steep upward incline and (iii) taking correct and prompt action on the signals were not carried out in the absence of testing tracks in 100 out of 145 RTOs/UOs.

Thus, despite clear statistics on the role of driver errors in road accidents and a policy directive to introduce a more effective and efficient licensing procedure, the State continued to lack adequate infrastructure to test the competence of candidates seeking driving licence and the rigour in the testing process was diluted to compensate for the low number of MVIs. As a result, drivers were not tested adequately and a widespread ignorance and non-observance of traffic rules turned out to be the root cause of road accidents. Focussing on applicants clearing driving tests, which are correctly conducted will ensure that drivers on the road are competent and fully aware of driving rules both in theory and practice.

In the Exit Conference (December 2018), the Transport Commissioner opined that quality of testing for issue of licences had no relationship with the RTA happening in the State. The reply was not accepted as driver error contributed to 77 per cent of RTAs in the State and adequate testing of driver at the time of issuing licence would definitely have a bearing on the accident data.

### 2.1.8.2 Lapses in enforcement action

#### (a) Failure to contain 'hit and run motor accidents'

Section 161 of the MV Act, 1988 defines 'hit and run motor accident' as an accident arising out of the use of motor vehicle or motor vehicles, the identity whereof cannot be ascertained in spite of reasonable efforts for the purpose. The details of hit and run incidents in the State/sampled districts during 2013-18 are given in **Table 2.7**.

**Table 2.7: Details of hit and run road accidents and victims during 2013-18**

District/city	Total number of accidents	Number of fatalities	Number of injured	Total
(1)	(2)	(3)	(4)	(3) + (4)
<b>State</b>	<b>23,423</b>	<b>8,281</b>	<b>15,986</b>	<b>24,267</b>
Chennai	1,718	286	1,460	1,746
Coimbatore	1,577	527	1,037	1,564
Cuddalore	1,051	292	774	1,066
Pudukottai	522	165	362	527

(Source: Compiled from RADMS)

Tamil Nadu Third Police Commission recommended to the Government to install CCTV cameras in all high risk locations as early as in 2008. Though ADGP/STPC identified high risk locations during 2013-14 for installation of CCTVs, there was no follow up action. The Police Department, however, using private sponsorship and Road Safety Fund, installed CCTVs in 86 locations in the three sampled districts. Audit, however, noticed that CCTVs were not provided in any of the high risk areas/identified black spots in the sampled districts.

CCTVs are the only means of identifying and holding the culprits accountable in hit and run cases. Therefore, it is necessary to install more CCTVs. Thus, despite advancements in technologies, the failure to install this technological tool contributed to continued increase in the number of unresolved 'hit and run motor accident' cases.

GoTN replied (December 2018) that installation of CCTV cameras under various schemes was under progress.

**(b) *Non-prosecution of persons caught driving without licence***

The MV Act, 1988, makes it mandatory that no person shall drive a motor vehicle in any public place unless he holds an effective driving licence issued to him authorising to drive the appropriate class of vehicle. Under Section 180 of the MV Act, 1988, driving a motor vehicle without a valid licence is a punishable offence with imprisonment upto three months or with fine, which may extend to ₹ 1,000 or with both.

As per RADMS data, during 2013-18, 2,89,074 vehicle drivers, who were involved in road accidents in the State did not possess valid driving licences. The data on the number of persons committing accidents without driving licence indicated the enormity of the issue.

Audit, however, noticed that Police authorities levied only spot fine on offenders without valid licence. From the instructions given (August 2017) by the Transport Commissioner to prosecute drivers caught without driving license under the provisions of the MV Act, it was evident that there was no system of initiating criminal proceeding to punish the offenders so as to create a moral fear and stop this dangerous practice of driving without valid licence.

Further, Section 180 of the MV Act provides for imprisonment, upto three months, of anyone who causes or permits any person who does not satisfy the eligibility to drive the vehicle. During 2013-18, 869 road accidents were caused by children in the age group of 10-15 years. Further, in Chennai District, the Traffic Police collected (2016-17) only spot fines from all the 674 juvenile offenders driving two/four wheelers and hence failed to prosecute the parents/guardian of the juvenile offender under the MV Act, 1988. In Cuddalore, Coimbatore and Pudukottai districts, no separate data was available in this regard.

Audit observed that the increasing trend in the number of persons caught without driving licence, indicated deficiency in stringent enforcement measures by instituting criminal prosecution. Poor enforcement of law encourages the drivers to violate traffic rules, thus, posing a threat to other road users.

**(c) *Laxities in dealing with drunken driving, over speeding, etc.***

**Drunken driving:** Sections 184 and 185 of the MV Act, 1988 read with Section 21 prescribe suspension of driving licence of offenders in cases involving drunken driving for a period of six months. As per the existing system, the Police Department has to send the identified cases to the Regional Transport Officer (RTO) concerned for suspension of driving licence.



Drunken driving is a rampant offence in the State with 10.35 lakh identified cases during 2014-18<sup>20</sup>. Audit, however, noticed that only 65,657 (6.2 per cent) of the 10.35 lakh cases were sent to the RTOs concerned for suspension of driving licence. Of this, only 25,133 (38 per cent) driving licences were actually suspended by the RTOs. Details of cases registered, licences suspended or cancelled during the years 2014-18 in the sampled districts are given in **Table 2.8**.

**Table 2.8: Details of drunken driving cases**

District	Total cases registered by Police	Cases sent to RTO for suspension	Licences suspended by RTO
Chennai	2,35,804	14,142	10,015 (71)
Coimbatore	38,263	8,156	3,683 (45)
Cuddalore	22,794	25	25 (100)
Pudukottai	14,424	281	281 (100)
<b>Total</b>	<b>3,11,825</b>	<b>22,604</b>	<b>14,004 (70)</b>

Figures in brackets indicate the percentage of licenses suspended.

(Source: Details furnished by Police Department)

**Over speeding, overloading and mobile phone usage:** Section 19 of the MV Act, 1988 read with the recommendations of the Supreme Court Committee on Road Safety provides for suspension of driving licence in the cases of over speeding, overloading and using mobile phone while driving vehicle. Details of road accidents in the State and in the sampled districts during 2013-18 due to over speeding, overloading and use of mobile phone while driving are given in **Table 2.9**.

**Table 2.9: Road accidents due to over speeding, overloading and mobile phone usage**

District	Total accidents			Fatalities		
	Over-speeding	Over-loading	Use of Mobile phone	Over-speeding	Over-loading	Use of Mobile phone
<b>State</b>	<b>2,51,571</b>	<b>138</b>	<b>374</b>	<b>59,542</b>	<b>43</b>	<b>177</b>
Chennai	10,685	2	22	1,705	0	4
Coimbatore	16,200	7	60	4,186	1	41
Cuddalore	16,411	2	5	2,428	1	0
Pudukottai	2,885	0	16	732	0	6

(Source: Compiled from RADMS)

During 2013-18, Police Department registered 9.22 lakh cases for driving at high speed, 1.82 lakh cases for carrying overload and 10.82 lakh for using mobile phone while driving. During 2013-16, Audit noticed that no action was taken by the Police Department for suspension of driving licence. During 2017 and 2018 (upto March 2018), the Police Department took action, albeit in a very few number of cases as given in **Table 2.10**.

<sup>20</sup> Data on drunken driving was maintained only from 2014 based on the instructions issued (2014) by the Supreme Court Committee on Road Safety.

**Table 2.10: Suspension of Driving Licences**

District	Total cases registered by police	Cases sent to RTO for suspension	Licences suspended by RTO
Chennai	6,96,589	2,986 (0.43)	1,628
Coimbatore	95,643	17,973 (18.79)	9,812
Cuddalore	23,436	1,902 (8.12)	1,902
Pudukottai	40,649	1,593 (3.92)	0
<b>Total</b>	<b>8,56,137</b>	<b>24,454 (2.86)</b>	<b>13,342 (1.56)</b>

Figures in brackets indicate percentage of total cases registered.  
(Source: Details furnished by Police Department)

As seen from **Table 2.10**, even the miniscule number of cases referred by Police Department to RTOs was not acted upon in full to suspend the licence, except in Cuddalore, where the RTO suspended licences of all the 1,902 cases referred by the Police Department. This indicated the lack of coordination between Police and Transport Departments.

Based on detailed analysis of all the 269 cases of suspension of driving licences at RTO, Mettupalayam, during 2016-18, it was observed that the suspension was initiated after 21 to 364 days after receipt of proposal from the Police authorities for suspension of licence. As the suspension for a period of three months took effect from the date of proposal, in 235 out of the 269 cases (87 per cent), the suspension was of no effect.

In reply, the Superintendent of Police, Pudukottai and CoP, Coimbatore stated (June 2018) that all cases of offenders were not sent to RTOs due to shortage of Police personnel in the districts and that proposal for suspension of driving licence was sent only in respect of drivers who carry the original licence. The reply was not acceptable as the copy of the driving licences should have been forwarded to the RTO for initiating action against the licence holder. Driver error is one of the main causes of road accidents and poor follow up action by the police authorities will lead to drivers continuing to disregard the law and indulge in negligent driving.

Thus, the system in place to check drunken driving, over speeding, over loading and using mobile phone while driving, which are major causes for accidents, is severely compromised due to inadequate manpower to deal with the magnitude of cases reported as discussed in **Paragraph 2.1.8.4 (a)**.

**(d) Vehicles without third party insurance**

Section 146 of the MV Act, 1988, provides that no motor vehicle shall be used in a public place unless there exists a policy of insurance to cover third party risks. The Supreme Court Committee on Road Safety directed (December 2016) that the Police authority should check the vehicles to ascertain availability of third party insurance cover and in case the vehicles are not covered by third party insurance, the vehicles should be detained till a valid insurance certificate is produced by the vehicle owner.

Details of vehicles caught by Police without third party insurance, detained, etc., are given in **Table 2.11**.

**Table 2.11: Details of vehicles caught without third party insurance**

Name of the District	Number of vehicles			Percentage of vehicles insured [(Col.4 x 100)/ Col.2]
	Found without Third Party Insurance	Detained	Insured after detention	
(1)	(2)	(3)	(4)	(5)
<b>State</b>	<b>83,528</b>	<b>21,788</b> <i>(26 per cent)</i>	<b>21,475</b>	<b>25.71</b>
Chennai	7,451	466	421	5.65
Coimbatore	10,129	1,767	1,761	17.39
Cuddalore	10,848	969	969	8.93
Pudukottai	2,560	0	0	0

(Source: Details furnished by Police Department)

The fact that only in 26 *per cent* of the cases, the vehicles were detained and others were let off with a fine indicated the weakness in enforcement as there was no scope to ensure third party insurance for these vehicles. In reply, the Police Department stated that vehicles were not detained for want of manpower to take custody of vehicles. It further stated that since the roads are narrow in the districts and if the vehicles are detained for production of insurance certificate, this may add to traffic congestion. Audit observed that difficulties in enforcement would not justify non-enforcement as the onus is on Police Department including arranging space to house the detained vehicles.

**(e) Helmet rule violations**

As per extant orders (February 2007) of Transport Department, wearing helmet is mandatory in the State. Audit, however, noticed that, out of 2,23,466 two wheeler accidents in the State during 2013-18, data on whether the rider was wearing helmet or not was available only in respect of 75,094 accidents. Out of which, in 69,804 accidents, the riders were not wearing helmet (93 *per cent*). **Table 2.12** shows the number of fatalities due to head injury of two wheeler drivers driving without wearing helmets.

**Table 2.12: Statement showing fatalities due to head injury of two wheeler drivers not wearing helmets**

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Total
<b>State</b>	<b>1,291</b>	<b>1,105</b>	<b>1,062</b>	<b>1,130</b>	<b>988</b>	<b>5,576</b>
Chennai	122	64	80	105	76	447
Coimbatore	49	68	65	107	63	352
Cuddalore	18	13	15	11	11	68
Pudukottai	87	26	17	104	59	293
<b>Total</b>	<b>276</b>	<b>171</b>	<b>177</b>	<b>327</b>	<b>209</b>	<b>1,160</b>
<b>(In per cent)</b>	<b>21.38</b>	<b>15.48</b>	<b>16.67</b>	<b>28.94</b>	<b>21.15</b>	<b>20.80</b>

(Source: Compiled from RADMS)

It is seen from **Table 2.12** that during 2013-18, both in the State and the sampled districts, the number of fatalities due to non-wearing of helmets by two wheeler riders kept fluctuating without showing any appreciable improvement. Audit observed that lapses in the system to award severe punishment to repeat offenders (**Paragraph 2.1.7.3 (b)**) and the low amount of spot fine (**Paragraph 2.1.7.3 (c)**) failed to deter the violations.

### **2.1.8.3 Inadequate manpower in Traffic Police Wing for enforcement activities**

(i) Bureau of Police Research and Development (BPRD) norms stipulate (September 2015) the number of traffic police personnel required in cities for enforcing traffic laws based on human and vehicle population (2014). Despite GoTN's assurance (January 2016) to the Supreme Court Committee on Road Safety to implement BPRD norms, no action was taken to sanction additional traffic police (May 2018) in two sampled districts of Chennai and Coimbatore.

As against the required<sup>21</sup> traffic police personnel<sup>22</sup> (as per BPRD norms) of 8,250 and 1,874 in Chennai City and Coimbatore City respectively, the sanctioned strength was 4,174 and 325 and the Person-in-position was 3,358 and 217. The shortfall was 59 and 88 *per cent* respectively.

(ii) The Tamil Nadu Third Police Commission in its Report (2008) recommended that all towns with significant vehicular traffic must have traffic Police Stations and that more number of Home guards and other voluntary organisations were to be engaged to regulate traffic. Despite accepting (November 2008) the Commission's recommendations, GoTN failed to act promptly to bridge the gap in manpower as discussed below:

- In Pudukottai District, the shortfall was 41 *per cent*. The proposal of the Superintendent of Police (May 2018) for additional traffic Police Stations and 16 traffic police personnel in view of increased vehicular traffic was pending (June 2018) with DGP.
- In Cuddalore District, no action was taken on the proposals of the Superintendent of Police (July 2016, February and March 2017) for additional Police Stations in three places<sup>23</sup> and 54 police personnel.
- DGP's proposal (September 2010) seeking sanction for additional expenditure of ₹ 12.55 crore towards extra callout duty for home guards to assist the traffic police in regulating traffic duty at various stations in cities and districts was pending with the Government since September 2010.

To an Audit enquiry on manpower shortage, the ADGP replied (May 2018) that the proposal was pending with the Government.

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<sup>21</sup> Based on vehicle population on December 2017.

<sup>22</sup> For Field, Headquarters and Supervisory staff.

<sup>23</sup> Kattumannarkoil, Neyveli and Veppur.

Thus, the reluctance of the Government to adopt BPRD norms despite assurance to the Supreme Court Committee on Road Safety and to implement the accepted recommendation of the Tamil Nadu Third Police Commission resulted in shortage of manpower for traffic rule enforcement.

#### 2.1.8.4 Inadequate Highways patrolling

As per RADMS data, during 2013-18, 2,66,563 of the total of 3,30,505 accidents occurred on National and State Highways (SH). As of March 2018, there were 272 HPTs for patrolling 272 stretches of National (156 teams) and SH (116 teams) in the State. HPT serve as mobile enforcement team. Scrutiny of records relating to functioning of HPTs in Coimbatore, Cuddalore and Pudukottai districts disclosed the following deficiencies.

**(a) Shortage of manpower:** The crew strength of one batch of each HPT (operating in two batches) should consist of a Sub-Inspector, a Driver and four Police Constables. Audit, however, noticed that in the three sampled districts, as against the required strength of 444, only 159 police personnel were in position. While the overall shortage was 36 per cent, it ranged from 52 per cent in Pudukottai District to 80 per cent in Coimbatore District.

**(b) Shortage of fuel:** Each HPT was allotted stretches of 20 to 60 kms in State/National Highways and 450 litres of fuel per month per Highway Patrol Vehicle (HPV). Audit noticed that District Police Officers (DPOs)/CoPs issued only 160 litres of fuel per month to each HPT. From the reply it was noticed that HPVs patrolled only 22 to 39 per cent of allotted stretches in the three sampled districts.

**(c) Diversion of vehicles:** During 2013-18, 14 out of 37 HPVs in the three sampled districts were permanently diverted for other purposes<sup>24</sup>, effectively reducing the number of vehicles available for patrolling.

**(d) Poor condition of HPVs:** Out of 272 HPVs purchased during 2005-12, 41 HPVs were condemned (2017) and eight were under condemnation (since May 2017). Audit observed that HPTs continue to use the condemned vehicles as DGP's proposal (2017) for purchase of 41 new vehicles was pending with GoTN (September 2018).

**(e) Monitoring:** HPVs were fitted with GPS gadgets for round the clock tracking of their movement by ADGP/STPC at State level and by DPOs/CoP at district level. However, monitoring was not done in STPC due to shortage of manpower and the equipment was lying idle (September 2018). In the sampled districts, the GPS monitoring system was not available. Thus, the objective of GPS monitoring was not achieved. Audit checked the live data of the movement of HPVs on 14 May 2018 and found that, out of the 261 vehicles fitted with GPS gadget, 207 vehicles (79 per cent) had switched off the GPS mode, making monitoring impossible.

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<sup>24</sup> Details of diversion not available in records produced to Audit.

Thus, the functioning of HPTs in the sampled districts was impaired due to shortage of manpower, vehicles, fuel, frequent diversion of vehicles and switching off the GPS mode.

#### **2.1.8.5 Non-implementation of Integrated Traffic Management System in Chennai City**

With a view to upgrade traffic management in Chennai City, GoTN sanctioned (February 2012) ₹ 150 crore for setting up an Integrated Traffic Management System (ITMS). Under ITMS, signalling in 100 traffic intersections in the City was to be networked for real-time monitoring of traffic flow, checking traffic violations, creating green corridor for emergency services and VIPs, etc.

The Commissioner of Police, Chennai awarded (July 2012) the work of designing, supplying, installing, commissioning and five years maintenance of ITMS to a contractor for ₹ 117 crore. The project was to be completed by January 2013. The project, however, was not completed even as of September 2018.

Scrutiny of records in the office of the CoP, Chennai disclosed that the Additional Commissioner of Police Traffic (ACoP Traffic) issued (March 2013) a notice to the contractor, proposing termination of the contract for his failure to complete the project in January 2013, as per schedule. Following this, a Committee constituted by the CoP in April 2013 observed (October 2013) that the contractor did not have sufficient expertise, experience and adequate financial resources to execute ITMS and endorsed the termination notice of the contract. The aggrieved contractor initiated arbitration proceedings (December 2013) seeking ₹ 72 crore on account of costs incurred for material procured, services rendered, loss of profit, compensation for loss of goodwill, interest, etc., which was pending as of September 2018.

Audit observed that non-ensuring contractor's capacity to carry out the project together with the hasty decision to terminate the contract without probing the appropriate course of action through professional help resulted in ITMS, a crucial technological intervention to improve traffic management in the City, coming to a standstill and GoTN ended up with a liability of ₹ 72 crore (pending payment for work done under Phase I).

GoTN replied (December 2018) that the issue was under Arbitration and action would be taken based on decision reached.

#### **2.1.9 Road Engineering**

Engineering is one of the four E's of road safety, which includes Education, Enforcement and Emergency Care also. According to Indian Road Congress (IRC), roads and its surroundings are exclusively responsible for 2.5 per cent of the accidents and roads and its surroundings, together with errors of road users and vehicles contribute to a total of 28 per cent (**Exhibit 2.3**) of the accidents. The role played by the roads in causing accidents is quite big and

that warrants proper addressing of the issues connected with road engineering. Appreciating the importance of roads in road safety measures, the Tamil Nadu Road Safety Policy, 2007, suggested to (i) Introduce latest planning, design and construction techniques, (ii) Carry out road safety audit (RSA) and create institutional arrangements to sustain this activity, (iii) Continuously identify accident prone areas (“black spots”) and (iv) Remove encroachments and obstructions affecting the full use of roads. Results of Audit scrutiny of the activities envisaged in the policy are discussed in the succeeding paragraphs.

### 2.1.9.1 Non-adherence to road safety measures in road engineering

The IRC provides for road safety measures at intersections, road markings, lane markings in carriageway, pedestrian facilities, etc. In the joint physical verification carried out (May and June 2018) with Highways officials in two roads in Chennai City, viz., (i) Grand Southern Trunk Road (SHU 88) and (ii) Grand Northern Trunk Road (SHU 87) and in seven<sup>25</sup> bus route roads with



Exhibit 2.6: Uncontrolled median opening in Grand Northern Trunk Road, Chennai (Source: Joint physical verification)

officials of Chennai Corporation (June 2018), Audit noticed several instances of non-adherence to IRC provisions such as lack of (i) retro reflective Object Hazard Markers (OHMs), (ii) Chevron sign board, (iii) granular/paved shoulders of adequate size, (iv) traffic lane marking, (v) speed breakers to give visual, audible and tactile stimuli, etc. Unregulated openings in median was a common sight (**Exhibit 2.6**). The deficiencies noticed are given in detail in **Appendix 2.3**. Audit observed that none of the sampled roads met the standards stipulated by IRC.

GoTN stated (December 2018) that the defects pointed out by Audit were rectified immediately. Audit could not verify the reply.

### 2.1.9.2 Deficiencies in road safety audit

Road Safety Audit is a formal procedure for assessing accident potential of roads under construction as well as existing roads. IRC stipulates RSA at planning, construction and completion stages of new highways. In respect of existing roads, the audit was to be conducted every year by specialists not related to construction/maintenance of the road. RSA envisages study of accident potential due to change in road use, encroachment, design inconsistency, ageing infrastructure and inadequate maintenance of road and

<sup>25</sup> Alandur Road, East Ramanathan Salai, Race Course Road, Sir Theyagaraya Road, Usman Road, Uthamar Gandhi Salai and Wallajah Road.

traffic control devices. Tamil Nadu Road Safety Policy also envisages institutional arrangement for conducting RSA.

Audit noticed that:

- None of the four sampled Highways Divisions carried out RSA for four years, during 2013-17. During 2017-18, based on an instruction from the Chief Engineer, Highways Department, all sampled Divisions carried out RSAs. Highways Divisions of Coimbatore, Cuddalore and Pudukottai reported (between October 2017 and March 2018) completion of RSA of all SH and Major District Roads. In Chennai, RSAs were completed only in 12 out of the 16 SH. The Other District Roads were not audited in Coimbatore and Pudukottai districts.
- RSAs in the sampled districts carried out during 2017-18 did not meet the main stipulation of IRC that the audit should be conducted by persons who are not related to the roads. The RSAs were, however, conducted by the same set of engineers who were in charge of maintenance of these roads. Thus, an independent assessment of the roads was not carried out.
- RSAs were conducted only on selected vulnerable stretches of the roads, not on the full length of the road as contemplated, as given in **Table 2.13**.

**Table 2.13: Position of conducting RSA on all reaches of roads**

District	Total reaches where RSA was to be conducted			Number of reaches where RSA was not conducted		
	SH	MDR	ODR	SH	MDR	ODR
Chennai	328	28	44	320 (98)	21 (75)	39 (88)
Coimbatore	574	233	10	462 (80)	167 (72)	8 (80)
Cuddalore	576	96	209	504 (88)	69 (72)	150 (72)
Pudukottai	556	206	18	523 (94)	204 (99)	18 (100)
<b>Total</b>	<b>2,034</b>	<b>563</b>	<b>281</b>	<b>1,809</b>	<b>461</b>	<b>215</b>

SH: State Highways; MDR: Major District Roads; ODR: Other District Roads

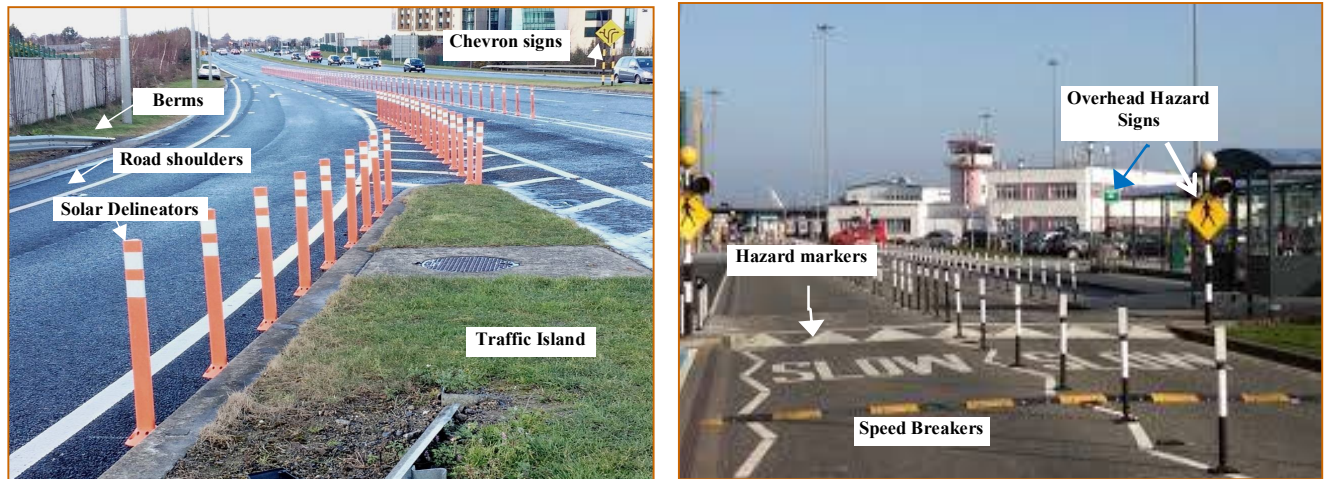
Figures in brackets indicate percentage

(Source: Records of Highways Divisions)

- Joint physical verification (May to August 2018) of 2,485 reaches left out of RSA disclosed deficiencies in road conditions. The roads did not have road markings, sign boards, delineators and hazard markers on culverts, bridges, temples, etc., speed breakers with reflectors in branch roads meeting highways, adequate berms and medians as per IRC specifications (**Exhibit 2.7**).



Exhibit 2.7: Illustrative image depicting constituents of road furniture



- Though the RSA reports pointed out (between May and August 2017) the lack of several basic road safety measures<sup>26</sup> in Cuddalore District, the suggested rectifications were not carried out (July 2018). During a joint physical verification (June 2018) of 23 roads, Audit noticed that important road safety measures *viz.*, road markings, adequate height of median, reflectors on culverts and medians, berms, delineators, etc., were lacking.
- The Highways Department lacked adequate capacity building to carryout RSA as only 57 out of 488 engineers were trained during 2013-18 on conducting RSA.

While the practice of initiating RSA is a welcome step, it is necessary to ensure that all stretches of Highways are audited in line with the IRC specifications and the shortcomings corrected. Failure to do so will render the very purpose of RSAs futile.

GoTN replied (December 2018) that RSAs of all roads except ODRs were carried out during 2017-18 and that RSA of ODRs would be completed soon. The reply was not tenable as only selected reaches of the roads were subjected to RSA.

### 2.1.9.3 Deficiencies in correcting black spots

The Supreme Court Committee on Road Safety instructed (2015) to submit a time bound programme to rectify black spots and report the progress of work from time to time. The Chief Engineer (Highways) Construction and Maintenance Division instructed (November 2016) all Divisional Engineers to inspect the identified black spots (**Table 2.14**) and suggest suitable short term engineering measures for execution/rectification and recommend long term measures to the State Road Safety Council for approval. The details of black

<sup>26</sup> Road studs for edge lines, road markings, hazard markings, caution boards for curve and narrow bridges ahead/branch roads, extra width of pavement at horizontal curves, chevron boards, speed breakers with reflectors, speed limit sign boards and various sign boards like 'U' turn board, school zone board, etc.

spots identified in the sampled districts and rectified were as given in **Table 2.14**.

**Table 2.14: Number of black spots identified and rectified by Highways Department**

Name of the Highways division	Number of black spots identified				Number of black spots rectified				Number of black spots to be rectified			
	2013-15 <sup>A</sup>	2014-15 <sup>B</sup>	2016 <sup>C</sup>	Total	2013-15	2014-15	2016	Total	2013-15	2014-15	2016	Total
Chennai City	3	-	-	3	-	-	-	-	3	-	-	3
Coimbatore	5	1	5	11	4	1	-	5	1	-	5	6
Cuddalore	-	9	-	9	-	2	-	2	-	7	-	7
Pudukottai	3	4	2	9	1	1	-	2	2	3	2	7
<b>Total</b>	<b>11</b>	<b>14</b>	<b>7</b>	<b>32</b>	<b>5</b>	<b>4</b>	<b>-</b>	<b>9</b>	<b>6</b>	<b>10</b>	<b>7</b>	<b>23</b>

A Based on more than five fatal road accidents at one road location.

B Based on more than three fatal road accidents at one road location.

C Based on more than two fatal road accidents within a stretch of 500m.

(Source: Details furnished by Highways Divisions)

Audit scrutiny of records and joint physical verification conducted (July/August 2018) by Audit along with officers of Highways Department disclosed deficiencies in the rectification as given in **Table 2.15**.

**Table 2.15: Deficiencies noticed during joint physical verification of rectified black spots**

District	Number of rectified black spots	Number of black spots lacking required improvements			
		Hazard Marking	Speed breaker	Caution sign board	Removal of Obstruction
Coimbatore	5	3	2	8	4
Cuddalore	2	0	1	4	1
Pudukottai	2	1	6	7	3
<b>Total</b>	<b>9</b>	<b>4</b>	<b>9</b>	<b>19</b>	<b>8</b>

(Source: Joint physical verification)

In addition to the black spots identified by Highways Department, during 2013-14, the Police Department identified 765 black spots in the State which included (i) 33 black spots in Cuddalore District, (ii) 21 in Pudukottai District, and (iii) 21 in Coimbatore District. In Chennai District, no black spots were identified. The Superintendent of Police, Cuddalore, had identified four black spots in Cuddalore-Virudhachalam-Salem Road (NH-532). In these stretches, the Police Department identified speed breakers and erection of caution board as the required Road Safety measures. Audit conducted (July 2018) joint physical verification of these four black spots along with Highways officials and found following shortcomings with reference to IRC specifications:

- Inadequate provision of berms to match with the traffic volume of more than 10,000 Passenger Car Units,
- Encroachment of Right of Way by erecting party flag, basement beam, tea shops and hotel menu board were resultant hindrance to vehicle users,

- Footpath with pedestrian guard rails, bus lane, zebra crossing for pedestrian, pavement marking at bus stop were not provided,
- Electric power lines not shifted from edge of roads and
- Non-provision of Channelisation of island to regulate the vehicles approaching the major road from minor road (T Junction), speed breaker at uncontrolled junctions and where vehicles travel at high speeds and Reflectors and Object Hazard Markers in the minor bridge.

GoTN replied (December 2018) that rectification of black spots was in progress.

#### 2.1.9.4 Road encroachments and obstructions

Encroachments obstructing road margins are common occurrences. A joint physical verification (July/August 2018) by Audit of selected roads in the sampled districts indicated 378 encroachments on 505 km long stretches of roads. The details are given in **Table 2.16**.

**Table 2.16: Encroachment and obstructions on roads noticed during joint physical verification**

District	Number of Highway roads	Length (in km)	Length of roads jointly inspected (in km)	Number of encroachments noticed
Chennai	9	80	80	50
Cuddalore	23	184	174	134
Coimbatore	10	163	94	134
Pudukottai	6	216	157	60
<b>Total</b>	<b>48</b>	<b>643</b>	<b>505</b>	<b>378</b>

(Source: Joint physical verification)

The State Road Safety Council and the Police Department did not frame any action plan to identify encroachments and obstruction in roads *viz.*, road-side parking, encroachment of shops into roads/foot path, hazards like trees, electricity boxes, lamp posts, etc. As per Urban Street Vendor Act, 2014, respective local body should constitute a Town Vending Committee (TVC), who has to identify and issue a certificate of vending to eligible street vendors. Other vendors were to be evicted. Audit observed in the sampled districts, that though TVC was constituted and street vendors were issued bio-metric identification, certificate of vending was not issued to any street vendor in the sampled districts. However, no action was taken by the local bodies to evict ineligible vendors and to identify the place to shift eligible vendors.

Non-removal of encroachments by local authorities posed serious threat to road safety for both pedestrians and vehicle users as it reduced the road width.

## 2.1.10 Emergency Medical Response

Emergency Medical Response (EMR) is an integral part of the road safety framework. In order to strengthen EMR, the Tamil Nadu Road Safety Policy, 2007, envisages to (i) improve the capacity of Government hospitals to deal with EMR, (ii) involve private practitioners and hospitals in EMR and (iii) upgrade and disseminate awareness about the system of accident care.

Moreover, the Sustainable Development Goals (SDG) of the United Nations also targeted to halve the number of global deaths and injuries from RTA by 2020.

The State has made rapid strides in expansion in ambulance services for RTA victims. Audit, however, found shortcomings in several other fronts of EMR as discussed in the succeeding paragraphs.

### 2.1.10.1 Pre-Hospital Care

#### (a) Emergency Ambulance Services

GoTN has established 24x7 ambulance services with a fleet of 932 ambulances (as of June 2018). The ambulance service functions free of charge with a toll free telephone number (108 Ambulance Service). As per the data furnished by the Project Director, Tamil Nadu Health System Project, during 2013-18 in the sampled districts, the 108 ambulance services transported 1.03 lakh RTA victims. At State level, RTA victims constituted 21 per cent of the total patients transported during this period. These ambulances provide pre-hospital care at the scene of the accident and en-route to the appropriate hospital.

**Good Practices**

Scrutiny of data furnished by Commissioner of Trauma Care revealed that during 2013-18, an overwhelming 80 per cent of road accident victims were admitted within the 'Golden Hour' in the sampled districts and 79 per cent at the State level.

'Golden Hour' is the first one hour after the accident. RTA victims treated within the 'Golden Hour' had better chances of survival. **Table 2.17** gives district-wise details of cases admitted beyond the Golden Hour.

**Table 2.17: RTA cases admitted after the Golden Hour**

District	Total number of RTA cases during 2013-18	Number of cases admitted beyond golden hour	Percentage of cases admitted beyond golden hour
Chennai	28,805	3,042	10.56
Coimbatore	31,790	4,835	15.21
Cuddalore	26,613	8,560	32.16
Pudukottai	15,642	3,900	24.93
<b>Total</b>	<b>1,02,850</b>	<b>20,337</b>	<b>19.77</b>

(Source: Details received from Tamil Nadu Health System Project)

The data in the **Table 2.17** revealed the urban-rural divide; the predominantly urban districts of Chennai and Coimbatore performing far better than the rural districts of Cuddalore and Pudukottai. The Project Director, Tamil Nadu Health System Project stated that (i) traffic congestion, (ii) non-availability of

hospital in the close proximity and (iii) nearest ambulance being busy were the reasons for the delayed transporting of RTA victims.

Analysis of ambulance performance during March 2018 disclosed that it took less than 10 minutes to assign an ambulance in 91.17 *per cent* of the cases in Coimbatore District. Whereas, it took less than 10 minutes to assign an ambulance only in 84.45 to 85.83 *per cent* of the cases in the other three districts. Audit observed that the time taken to assign an ambulance was a crucial factor requiring better management of the fleet. GoTN replied (December 2018) that 76 new institutions located in close proximity to highways were identified for strengthening emergency care network and that action was underway to bring out a standard for Ambulance Services.

**(b) Emergency Accident Relief Centres**

In line with the Tamil Nadu Road Safety Policy, 2007, which envisaged involvement of private practitioners and hospitals in Emergency Medical Response (EMR), during 2001-06, GoTN established 100 Emergency Accident Relief Centres (EARC) along Highways across the State in partnership with private hospitals. EARCs are facilities on highways manned by para-medical staff who provide first aid to victims before their ultimate transfer to nearest Trauma Care Centre (TCC). EARCs were established to help stabilise the RTA victims before transporting them to appropriate hospitals. Sixty six of the EARCs were fully sponsored by private hospitals and 34 others were partially funded by GoTN. Audit noticed that this system of pre-hospital care was not functioning as envisaged as many of the EARCs stopped functioning over the years. As of August 2018, only 18 EARCs<sup>27</sup> were functioning, pointing to slackness in roping in private hospitals for EMR.

In terms of administrative mechanism, Audit noticed that while ambulance services and Trauma Care Centres were coordinated by the Commissioner of Trauma Care, the EARC came under Road Safety Commissioner. Bringing EARCs within the ambit of Commissioner of Trauma Care would facilitate more effective functioning.

GoTN replied (December 2018) that with the introduction of 108 Ambulance Services the EARC activities reduced gradually. The reply, however, did not indicate the Government's policy on running EARC after introduction of 108 Ambulance Service.

**2.1.10.2 Trauma Care Centre**

During the Eleventh (2007-12) and Twelfth (2012-17) Five Year Plan period, GoI provided funds for establishment of TCCs in 14 Government Hospitals<sup>28</sup> located along NH. TCCs are specialised facilities functioning 24 hours to treat RTA victims. As per the policy of GoTN, there should be one TCC for every 50 to 60 km stretch on NH and SH. GoTN also prescribed (October 2014) the scale for equipping the TCCs. The number of TCCs required based on the scale of one TCC per 50-60 km needs to be worked out through proper survey

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<sup>27</sup> Fully sponsored: 12 and partially sponsored: 6.

<sup>28</sup> Nine hospitals in Eleventh Five Year Plan and five hospitals in Twelfth Five Year Plan.

as the highways intersect each other requiring strategic location of TCCs. However, no such survey was done and as of March 2018 the State was having only 59 TCCs for a total road length of 17,154 km of NHs and SHs.

Audit noticed that the 59 TCCs in the State included 45<sup>29</sup> started in 2014, which were yet to be fully equipped. Audit scrutiny of 10 TCCs in the sampled districts disclosed that in addition to the shortage of TCCs, the available TCCs lacked adequate manpower and equipment to render effective service as discussed in the succeeding paragraphs.

**(a) Shortage of equipment**

TCCs were to be equipped with Operation Theatre, Blood Bank etc., and 39 items of medical equipment including major equipment viz., C-Arm Image Intensifier, CT Scan, Electrocardiogram (ECG), Ultrasonography, Ventilator, etc. However, none of the test-checked TCCs were fully equipped. Four TCCs<sup>30</sup> did not have separate emergency operation theatre. In terms of item-wise number of equipment, the shortage ranged from 51 to 100 *per cent* (**Appendix 2.4**). Audit noticed the Commissioner of Trauma Care did not initiate any action to equip the TCCs as per the prescribed standards. No reason was furnished to Audit in this regard.

**(b) Shortage of staff**

Each TCC was to be provided with 61 medical and paramedical personnel including 13 doctors. Audit noticed that the shortage of medical and paramedical personnel in the 10 test-checked TCCs ranged from 59 to 100 *per cent*. TCC-wise shortage is given in **Appendix 2.5**.

Audit noticed that while establishing 45 new TCCs in October 2014, GoTN directed to redeploy existing posts. No new posts were sanctioned. Audit observed that neither GoTN studied the feasibility of redeploying an estimated 3,000 medical and paramedical personnel nor the heads of sampled hospitals with TCC, initiated any action to redeploy the personnel.

**(c) Deficiency in service delivery**

Audit scrutiny of records in the sampled TCCs revealed that during 2013-18, 5,988 RTA victims died in TCCs. Further, 12,276 out of the 1,57,377 RTA victims brought to the TCC during this period were referred to other hospitals due to lack of facilities.

- In 7 of the 10 sampled TCCs, RTA victims were only provided first aid treatment and referred to other hospitals for further treatment due to want of basic infrastructure like fully equipped operation theatre, central oxygen supply, uninterrupted power supply in Operation Theatres, etc.

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<sup>29</sup> Excluding 14 TCCs established under Eleventh and Twelfth Five Year Plans.

<sup>30</sup> GH, Aranthangi; Kilpauk Medical College Hospital, Chennai; GH, Cuddalore and GH, Virudhachalam.

- In GH, Pollachi, TCC functioned for only one shift (from 7.30 AM to 1.30 PM) due to lack of human resources. RTA cases received after 1.30 PM were admitted after initial stabilisation and taken to Trauma Operation Theatre on the next day.

**(d) Functioning of GoI funded TCC**

Under Eleventh Five Year Plan, GoI sanctioned (January 2008) financial assistance of ₹ 80 lakh for construction of a new building and ₹ 5 crore for purchase of equipment for establishing a TCC in Kilpauk Medical College Hospital (KMCH), Chennai. The Public Works Department handed over the completed TCC building to the Hospital in May 2011. As of September 2018, two and half years after its release (February 2016), the GoI assistance of ₹ 5 crore for equipment was yet to be utilised and procurement of equipment was at tender stage due to non-finalisation of specifications by KMCH. The fund provided for the purchase of equipment was lying with Tamil Nadu Medical Services Corporation since February 2016. The slow pace of work indicated the lack of adequate importance attached by GoTN and KMCH. Audit noticed shortage of equipment as indicated in **Appendix 2.4**. Although being a major TCC established under GoI scheme, KMCH referred 348 out of 5,046 RTA victims during 2013-18, showing the sub-optimal functioning of the Centre.

**2.1.11 Funding Road Safety Measures**

GoTN provides funds towards minor works, procurements etc., for improving road safety, through budget, to the ‘Road Safety Fund<sup>31</sup>’ managed by an Inter Departmental Committee (IDC) headed by the Secretary to Government, Home Department. The Road Safety Commissioner is the Member Secretary of IDC. GoTN also provides funds to Highways Department towards capital works for improving road safety<sup>32</sup> (**Table 2.18**).

**Table 2.18: Expenditure on road safety activities**

Year	Expenditure		Total
	Road Safety Fund under Commissioner of Road Safety	Capital expenditure by Highways Department	
2013-14	7.50	0	7.50
2014-15	34.59	20.51	55.10
2015-16	10.04	99.58	109.62
2016-17	61.55	183.26	244.81
2017-18	51.69	154.21	205.90
<b>Total</b>	<b>165.37</b>	<b>457.56</b>	<b>622.93</b>

Does not include establishment expenditure on the associated agencies

(Source: Appropriation Accounts of respective years and information provided by auditees)

<sup>31</sup> 2041-00-800-AG - Implementation of Road Safety Programmes.

<sup>32</sup> 5054-80-800-KO - Special Project for attending Road Safety.

Management of the funds provided for road safety activities are discussed in the succeeding paragraphs.

### **2.1.11.1 Constitution of Road Safety Fund**

In order to streamline the system of provision of funds for road safety measures, in July 2000, GoTN decided to constitute a 'Road Safety Fund' out of the receipts of Compounding Fees and Spot Fines collected by Transport and Police Departments respectively. Audit, however, noticed that no such fund was constituted separately and the annual budget provision for road safety measures was treated as the provision for Road Safety Fund. This Fund, being a budget provision, lapses at the close of the financial year and therefore, technically it was not a 'Fund' at all. Details of Compounding Fees and Spot Fines collected during 2013-18 and funds provided in the budget for Road Safety Fund are given in **Table 2.19**.

**Table 2.19: Budget provision for Road Safety Fund**

(₹ in crore)

Year	Compounding Fees	Spot fines	Total	Budget provision	Re-appropriation	Expenditure
2013-14	63.69	81.39	<b>145.08</b>	65.00	(-) 54.58	7.50
2014-15	78.12	91.02	<b>169.14</b>	65.00	(-) 30.40	34.59
2015-16	76.14	104.64	<b>180.78</b>	65.00	(-) 52.39	10.04
2016-17	81.85	101.02	<b>182.87</b>	65.00	0	61.55
2017-18	79.21	189.11	<b>268.32</b>	65.00	(-) 12.88	51.69
<b>Total</b>	<b>379.01</b>	<b>567.18</b>	<b>946.19</b>	<b>325.00</b>	<b>(-) 150.25</b>	<b>165.37</b>

(Source: Details furnished by Road Safety Commissioner)

As could be seen from **Table 2.19**, against ₹ 946.19 crore collected as Compounding Fees and Spot Fines during 2013-18, only ₹ 325 crore (34 *per cent*) was provided for Road Safety Fund and only ₹ 165.37 crore (17 *per cent*) was actually utilised as commented in **Paragraph 2.1.11.2**.

Although GoTN ordered in July 2000 to constitute Road Safety Fund out of the receipts of Compounding Fees and Spot Fines, percentage of collection to be transferred to the Fund was not specified by GoTN. During 2013-18, every year a lumpsum provision of ₹ 65 crore was made in the budget for Road Safety Fund. After the intervention (November 2016) of the Supreme Court Committee on Road safety, GoTN finally constituted (March 2018) a non-lapsable Road Safety Fund with a contribution of 50 *per cent* of the Compounding Fees and Spot Fines collected every year.

While the delay in deciding the percentage of receipts to be credited to the Fund resulted in short provision of ₹ 148.10 crore<sup>33</sup>, the delay in constituting the Fund outside the Consolidated Fund of the State resulted in surrender of unutilised provision of ₹ 150.25 crore during 2013-18.

<sup>33</sup> Calculated with reference to 50 *per cent* of the total receipt and actual provision during 2013-18 i.e. (₹ 946.19 crore ÷ 2) - ₹ 325 crore.



### 2.1.11.2 Deficiencies in utilisation of Road Safety Fund

The Tamil Nadu Road Safety Fund Rules, 2000, framed by GoTN to regulate utilisation of Road Safety Fund envisages an Inter Departmental Committee (IDC) under the Chairmanship of the Secretary to Government, Home Department to sanction funds for road safety measures. The Departments concerned send requests for financial assistance for road safety measures through the District Collector who is the Chairman of District RSC. Funds to execute the proposals approved by the IDC are released by the Road Safety Commissioner to the Department / District. Details of funds provided in the budget, approved for projects by IDC and expenditure incurred during 2013-18 are given in **Table 2.20**.

**Table 2.20: Utilisation of Road Safety Fund**

(₹ in crore)

Year	Budget provision	Requisition of funds from line departments	Approved by the IDC	Expenditure incurred
2013-14	65.00	117.19	14.17	7.50
2014-15	65.00	87.24	61.90	34.59
2015-16	65.00	173.77	13.33	10.04
2016-17	65.00	102.58	65.45	61.55
2017-18	65.00	314.25	65.12	51.69
<b>Total</b>	<b>325.00</b>	<b>795.03</b>	<b>219.97</b>	<b>165.37</b>

(Source: Details furnished by Road Safety Commissioner)

The inadequate provision, non-utilisation and diversion of funds are discussed in the succeeding paragraphs.

#### (a) *Inadequate provision of funds*

During the year 2013-14, IDC restricted sanction of works under Road Safety Fund so as to utilise ₹ 54.58 crore from the Fund for the proposed procurement and free supply of GPS enabled digital fare meters for auto rickshaws. Audit observed that the decision (August 2013) of GoTN to utilise ₹ 54.58 crore for digital fare meters was irregular as this proposed expenditure was in no way connected with road safety as it is not part of items eligible for assistance under the fund. The IDC continued to restrict allotment of funds for road safety works during 2014-15 and 2015-16 with the view to fund procurement of GPS enabled digital fare meters for auto rickshaws. The procurement, however, was never made, and the moneys earmarked thereof were not utilised for road safety measures, leading to surrender at the year end. It was also noticed that IDC sanctioned ₹ 31.96 crore out of ₹ 61.90 crore for 2014-15 only in February 2015 leading to under-utilisation. Similarly, during 2016-17 and 2017-18 also funds were released in March 2017 and February 2018 respectively leading to under-utilisation and surrender (**Table 2.20**).

Thus, short provision of funds in the budget and the decision of IDC to restrict funds for road safety measures to fund procurement of GPS enabled digital

fare meters using Road Safety Fund and release of funds at the fag end of the years had resulted in acute shortage of funds for road safety measures during 2013-18. As seen from **Table 2.20**, IDC sanctioned only 27.67 *per cent* of the funds requisitioned by the line departments for road safety measures during 2013-18.

**(b) Funds kept unutilised**

Audit also noticed that even the funds approved by IDC from the Road Safety Fund were not utilised promptly. Based on the proposal of Commissioner of Trauma Care, the Road Safety Commissioner released (August 2017) ₹ 15.50 crore for procurement of five mobile trauma care vehicles and essential equipment for trauma care centre in four hospitals. The amount released in August 2017 was lying idle (September 2018) with Tamil Nadu Medical Services Corporation, which was to procure the trauma care vehicles, as the specifications for the trauma care vehicles were not furnished by Commissioner of Trauma Care.

**(c) Diversion of funds**

(i) During the years 2016-17 and 2017-18, the IDC sanctioned ₹ 5.63 crore for software development and integration of existing software and hardware infrastructure of the modern integrated Check Post at Pethikuppam in Tiruvallur District. This Check Post was primarily connected with Commercial Taxes Department and hence Audit observed that utilising Road Safety Fund therefor was irregular.

(ii) Under Tamil Nadu Road Safety Fund Rules, 2000, procurement of patrol vehicles and other vehicles specially designed for Road Safety Work was allowed. Based on a proposal by the CoP, Chennai, the IDC sanctioned (September 2014) procurement of 135 Maruti Gypsy patrol vehicles and 466 patrol two wheelers for Police Department at a total cost of ₹ 11.10 crore. The fund was released by the Road Safety Commissioner in September 2014. The CoP, Chennai procured (April-July 2015) 135 Maruti Gypsy vehicles and 466 two wheelers at a total cost of ₹ 10.75 crore. Audit observed that Police Department deployed all these 135 Maruti Gypsy Vehicles and 466 two wheelers exclusively for Law and Order purpose, which was not directly related with road safety. Thus, ₹ 11.10 crore from Road Safety Fund was diverted for works not directly related to road safety.

**2.1.11.3 Capital Expenditure by Highways Department**

Till 2012-13, Road Safety Commissioner was releasing funds from Road Safety Fund to Highways Department for road engineering related measures. In 2014, the Chief Engineer, Highways Department, prepared a comprehensive proposal to correct the black spots in roads at an estimated cost of ₹ 1,130 crore. GoTN, while moving the budget for Highways Department for the year 2014-15, proposed to execute the works in a phased manner with an outlay of ₹ 900 crore during 2014-16.

Details of funds proposed, provided and utilised under road safety budget of Highways Department and CRIDP were as given in **Table 2.21**.

**Table 2.21: Capital expenditure on Road Safety**

(₹ in crore)

Year	Funds proposed		Funds provided in Budget		Funds utilised	
	Road Safety	CRIDP	Road Safety	CRIDP	Road Safety	CRIDP
2014-15	150.00	250.00	100.00	0.00	20.51	0.00
2015-16	150.00	350.00	100.00	0.00	99.58	0.00
2016-17	0.00	0.00	100.00	159.75	130.90	52.36
2017-18	0.00	0.00	139.96	156.51	102.86	51.35
<b>Total</b>	<b>900.00</b>		<b>756.22</b>		<b>457.56</b>	

(Source: Policy Note, Budget and Finance Accounts)

Against ₹ 900 crore proposed to be utilised during 2014-16 and ₹ 756.22 crore actually provided in the budget during 2014-18, only ₹ 457.56 crore was utilised. Non-provision of sufficient funds and deficiencies discussed in **Paragraphs 2.1.11.1** and **2.1.11.2** in carrying out works towards road safety by Highways Department contributed to non-completion of the work of black spot improvement as contemplated by GoTN.

GoTN replied (December 2018) that the provision and utilisation of funds under Road Safety Fund and CRIDP were higher than the figures given in **Table 2.21**. Audit rechecked the figures with the Finance Accounts of the State and the data furnished by Departmental officers and found that the figures given in the Government's reply did not represent the actual expenditure.

#### **2.1.11.4 System to defray road safety expenditure**

In 2009, GoTN amended Tamil Nadu Motor Vehicles Taxation Act, 1974, and introduced Section 3-B to collect an additional tax called "Road Safety Tax" in respect of new registration of motor vehicles "for the purpose of implementation of various road safety measures".

During 2013-18, GoTN mobilised ₹ 423.22 crore through this new tax. Audit, however, observed that despite introducing a new tax for implementation of various road safety measures, GoTN did not consider the revenue raised through this tax while providing funds in the budget for road safety.

Thus, the intention of the Legislature to augment the expenditure on road safety measures by mobilising additional funds through introduction of a new tax was not achieved.

### **2.1.12 Monitoring**

#### **2.1.12.1 State Road Safety Council**

State Road Safety Council (SRSC), the apex advisory body on road safety headed by the Minister of Transport was to meet once in three months.

Against the required 43 meetings to be held since its inception in July 2007 to March 2018, the Council met only on 10 occasions. The fallout of the infrequent convening of the SRSC meetings was that many of its recommendations were not followed up.

Instances of non-implementation of SRSC recommendations are discussed in **Table 2.22**.

**Table 2.22: Action taken on SRSC recommendation**

Sl. No.	Recommendations of Road Safety Council	Action taken
1	<b>Issue of licences:</b> Devise a procedure for sample check of driving licences by a Committee which shall include a police officer as a member (February 2008).	No record of action taken. Reasons called for and reply is awaited (September 2018).
2	<b>Cost of replacement:</b> Explore the possibility of recovering the cost of replacement of public property from vehicle drivers who cause damage to them (February 2008).	No record of action taken. Reasons called for and reply is awaited (September 2018).
3	<b>Awareness in advertisement:</b> Car manufactures and other sponsors shall incorporate slogans on road safety in their advertisements (January 2015).	No record of action taken. Reasons called for and reply is awaited (September 2018).
4	<b>Training centres:</b> Designate all Police Stations and RTOs as Training Centres for creating awareness among two wheeler riders caught without helmet (June 2017).	Though Road Safety Commissioner designated (June 2017) all RTOs/UOs in the State as Traffic Training Centres, no such action was taken by the Police Department. Reasons called for and reply is awaited (September 2018).
5	<b>Technology:</b> Experiment new technological solutions for road safety. Measures taken by M/s KELTRON in Kerala may be tried on pilot basis (June 2017).	No record of action taken. Reasons called for and reply is awaited (September 2018).

(Source: Extracted details from Minutes of DRSC meetings)

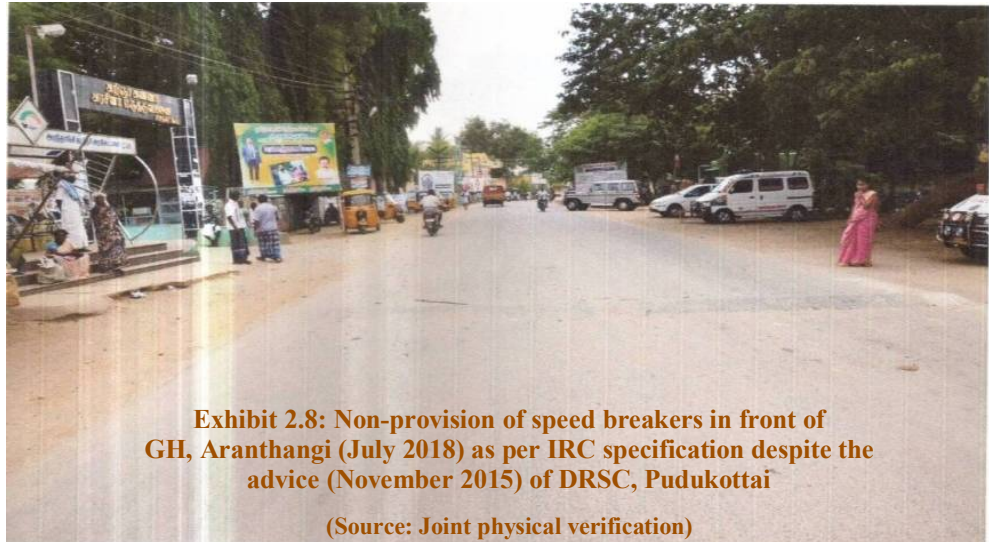
Audit observed that in the absence of an action plan for implementing the decisions taken by the SRSC, Road Safety Commissioner neither monitored nor followed up on the implementation of the recommendations by departments concerned. Thus, the very objective of formation of the SRSC viz., to bring in effective coordination among the departments involved in road safety and to monitor the activities undertaken was not achieved.

#### **2.1.12.2 District Road Safety Committee**

The District Road Safety Committee<sup>34</sup> (DRSC) should meet once in a month and review and analyse traffic accident statistics, consider various measures needed to promote road safety and review the action taken by the departments. During January 2014 to March 2018, against 51 meetings to be held, only two meetings were held in Chennai, 16 in Coimbatore, 28 in Cuddalore and 37 in Pudukottai. Non-convening of envisaged number of meetings resulted in laxity in monitoring.

<sup>34</sup> Headed by the respective District Collectors (except in Chennai where it is headed by the Commissioner of Police).

Though District Collectors had time and again reviewed the status of implementation of DRSC recommendations, the line departments were not prompt in initiating action. Non-convening of regular meetings and lack of seriousness attached by field officers were the reasons for failures in taking remedial action. Illustrative cases of inaction (**Exhibit 2.8**) on the part of field officers are discussed in **Appendix 2.6**.



### 2.1.13 Conclusion

Road safety issues in Tamil Nadu need to be addressed by a comprehensive plan, supported by detailed micro plans of the connected departments with strategies and milestones to bring down the incidence of road accidents and fatalities. Rash and negligent driving contributing to 77 per cent of road accidents, indicated drivers were not tested adequately, which in turn contributed to widespread ignorance and non-observance of traffic rules. Lack of adequate infrastructure and manpower compromised testing of candidates' driving skills for issue of driving licence. Road Engineering must focus on rectification of black spots and instituting the required road furniture in line with IRC norms. The enforcement action would be more effective with implementation of stringent penal action like suspension of licences and steeper fines to deter violations of traffic laws. Awareness of measures to promote road safety must be widespread in rural and urban areas and be targeted at the vulnerable section of road users i.e., the youth. Emergency Trauma Care Centres need to be strengthened with personnel and equipment to cater to the affected victims of road accidents. Reduction of road accidents and fatalities is required to meet the United Nations Sustainable Development Goals. Audit noticed that there was a need for increasing the availability of funds for road safety related works and effective monitoring of these activities.

#### **2.1.14 Recommendations**

- Computerised tracks for carrying out driving tests should be made the norm in all RTOs and Unit offices. Transport Department must ensure that applicants for driving licences are tested as per norms prescribed.
- Government should follow Bureau of Police Research and Development norms on staffing to ensure rigorous enforcement of traffic rules in the State.
- Transport Commissioner should expedite the implementation of Smart Card based driving licences and Registration Certificate.
- Rates of Spot fines must be reviewed to deter violations by vehicle drivers.
- Road Accident Data Management System should include all Road Traffic Accident cases which are recorded in Community Service Registers.
- There should be immediate suspension of driving licences in all cases of offences warranting such action.
- Highway patrolling should be made more effective by posting of personnel and purchase of vehicles, equipment and fuel.
- Commissioner of Police, Chennai should take early action to revive the project 'Integrated Traffic Management System' to automate traffic signals in Chennai City.
- Highways Department should put in place an institutional framework for Road Safety Audit and monitor rectification works of the black spots.

## HEALTH AND FAMILY WELFARE DEPARTMENT

### 2.2 Performance Audit on Provision of Health Care Services and Medical Education through Indian Systems of Medicine

#### *Executive Summary*

*The policy of the Government is to provide holistic health care by bringing Indian Systems of Medicine (ISM) into the mainstream. Government seeks to achieve its objectives by expanding the existing network of ISM institutions, improving the quality of medical education, etc. The present Performance Audit revealed near absence of a system for management of project funds provided by the Central and the State Governments, chronic shortage of physical and human infrastructure in medical institutions and lack of efforts to further research and development in ISM.*

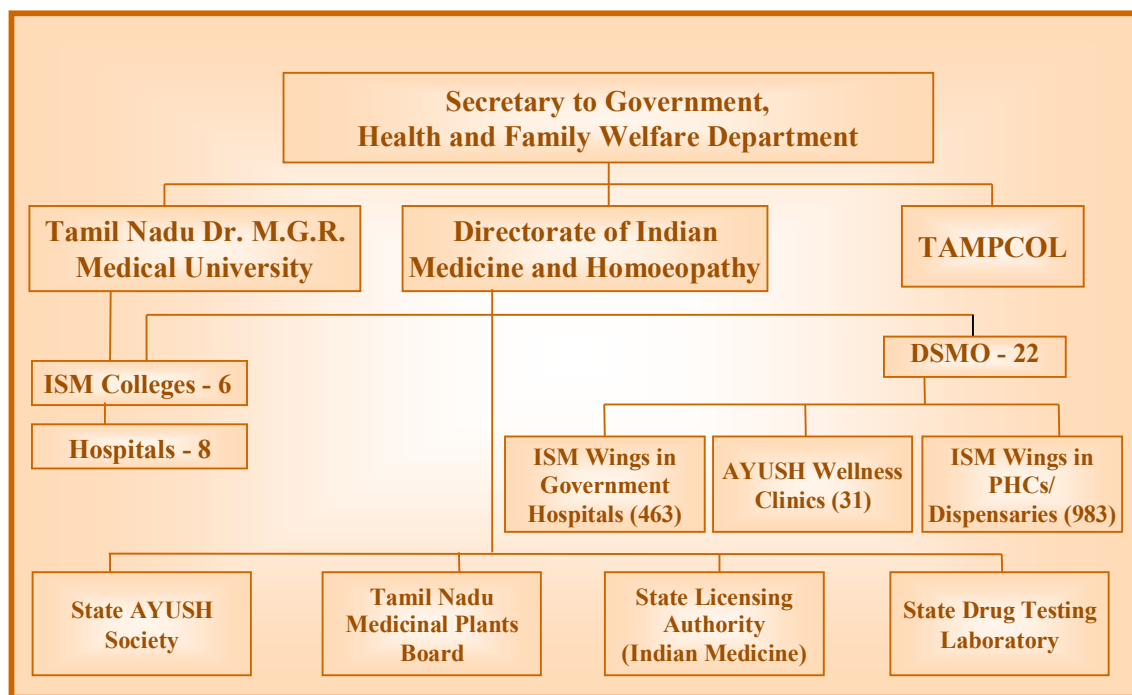
- *Delays in procurement of equipment resulted in huge sums lying in the bank accounts of Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Ltd., (TAMPCOL) and State AYUSH Society. The Department parked unutilised funds with TAMPCOL.*
- *The shortage of manpower across various posts ranged from 10 to 38 per cent in regular ISM wings, 48 per cent in ISM wings created under National Rural Health Mission and up to 100 per cent in ISM wings created under AYUSH.*
- *Out of 297 ISM wings in the sampled districts, 31 stopped functioning and 25 functioned for four days or less per week due to shortage of medical personnel.*
- *TAMPCOL, the PSU which manufactures and supplies medicines to ISM wings supplied only 47 and 50 per cent of the total quantity of medicines indented by the hospitals/wings during 2016-17 and 2017-18 respectively due to inadequate provision of funds and short production. No medicines were supplied to Unani wings during 2016-17.*
- *During 2013-18, 82 drugs found to be 'Not of Standard Quality' could not be frozen or recalled immediately from distribution due to delay in drug testing on account of shortage of staff in drug testing laboratory.*
- *Ayurveda, Unani and Homoeopathy colleges of the Government did not offer Post Graduate courses, hampering expansion of the reach of ISM.*
- *The Research and Development wing sanctioned by the Government in 2013 at a cost of ₹ 12 crore did not start functioning even as of August 2018 and the assets created were lying idle due to lack of coordinated action in procuring equipment and recruiting staff.*

### 2.2.1 Introduction

Indian Systems of Medicine (ISM) are an integral part of the health care delivery system in India. It includes Siddha, Ayurveda, Yoga & Naturopathy and Unani. Homoeopathy is also promoted along with ISM. Siddha, being the system native to Tamil Nadu, claims higher patronage among the five systems. They serve as alternatives to the allopathic medical system. In order to look after all matters connected with ISM and to develop them fully, the Government of Tamil Nadu (GoTN) established (May 1970) the Directorate of Indian Medicine and Homoeopathy (DIMH), under the administrative control of the Health and Family Welfare Department. Both the Central and State Governments encourage ISM. The State has six ISM colleges, eight ISM hospitals and 1,477 ISM wings co-located in Allopathic hospitals, dispensaries and Primary Health Centres (PHCs). Government of India (GoI) provides funds under National Rural Health Mission (NRHM) for 475 ISM wings designated as AYUSH clinics and another 31 ISM wings, designated as AYUSH Wellness Centres under National AYUSH Mission (NAM).

### 2.2.2 Organisational structure

The ISM institutions of the State are organised as under:



TAMPCOL - Tamil Nadu Medicinal Plant Farms & Herbal Medicine Corporation Limited

DSMO - District Siddha Medical Officer

### 2.2.3 Audit objectives

The objectives of the audit were to assess whether:

- the adequacy and utilisation of funds to meet the normative requirements of physical and human infrastructure;



- the availability of physical and human infrastructure for provision of health care services and education;
- whether ISM hospitals and dispensaries have put in place an efficient system for delivery of medical services; and
- whether ISM medical colleges imparted quality education and leveraged the research and development activities for revival advancement in ISM health care.

#### 2.2.4 Audit criteria

The audit findings were benchmarked against the following sources:

- The Indian Medicine Central Council Act, 1970;
- The Homoeopathy Central Council Act, 1973;
- Affiliation Rules of Tamil Nadu Dr. M.G.R. Medical University, Chennai;
- National and State Policies on Indian Systems of Medicine and Homoeopathy;
- National AYUSH Mission Guidelines;
- Guidelines issued by the National Mission for Manuscripts;
- The Drugs and Cosmetics Act, 1940 and Rules, 1945;
- Operational Guidelines of Central Sector Scheme for Conservation, Development and sustainable management of Medicinal Plants;
- Tamil Nadu Medical Code and orders issued by GoTN;
- The Bio Medical Waste Management Rules, 2016;
- Codes and manuals and orders/guidelines of GoTN; and
- Operational Guidelines for Financial Management, NRHM.

#### 2.2.5 Scope and Methodology

The Performance Audit covered the activities during 2013-18. Audit sampled one college from each system of medicines along with their attached hospitals. Six<sup>35</sup> out of twenty two ISM districts and 100 out of 1,485 ISM units co-located in Government Hospitals (GH) (47) and PHCs (53) were randomly selected using a sampling software. The list of sampled units is given in **Appendix 2.7**. Besides, the Audit covered the Health and Family Welfare Department at the Secretariat, DIMH, State AYUSH Society<sup>36</sup>, State Medicinal Plants Board, State Councils for Indian Systems of Medicines and Homoeopathy and TAMPCOL in respect of its role as nodal agency of DIMH for procurement of medicines, equipment, etc.

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<sup>35</sup> Dindigul, Erode, Thanjavur, The Nilgiris, Sivagangai and Vellore.

<sup>36</sup> Established for implementation of centrally sponsored AYUSH Scheme.

The Audit was conducted from March to July 2018. The audit objectives and criteria adopted for assessment of performance were discussed with the Principal Secretary to Government, Health and Family Welfare Department, at the Entry Conference held on 14 May 2018. An Exit conference to discuss the audit findings was held on 10 December 2018. The audit methodology included scrutiny of records, eliciting information/views through written audit enquiries, discussions with heads of institutions, joint physical inspections and a postal survey among medical graduates to assess graduation outcome.

### **2.2.6 Policy and Outcome**

Acknowledging the importance of ISM, GoTN *inter alia*, strives to:

- (a) bring ISM into the mainstream;
- (b) improve the quality of education in ISM and open new ISM medical colleges; and
- (c) encourage manufacture of ISM&H drugs and promote Research and Development (R&D) activities.

Although the State has made significant strides in achieving its objectives on ISM, the following major shortfalls in the outcome are discussed in subsequent paragraphs:

- (i) The number of patients treated is a measurable indicator of the outcome of inputs through various programmes/schemes on ISM. The absence of any substantial change in the number of patients treated indicated stagnancy in mainstreaming of ISM (**Paragraph 2.2.10.1**).
- (ii) The outcome of the measures taken to improve the quality of ISM education was not impressive when viewed from the graduation outcome in terms of employment potential (**Paragraph 2.2.11.3**) and the shortage of physical and human infrastructure (**Paragraphs 2.2.8 and 2.2.9**), which have a direct bearing on the quality of education.
- (iii) Similarly, more thrust would be required to improve the outcome in respect of manufacturing ISM drugs and promoting research as pointed out in **Paragraphs 2.2.10.3, 2.2.10.4 and 2.2.11.5**.

## **Audit Findings**

### **2.2.7 Financial Management**

GoTN provides funds through budget for regular activities of the Department and for developmental activities. In addition, GoI also provides funds under NRHM and NAM. The funds for ISM under NRHM are released by GoI to the State Health Society, which in turn release the funds to DIMH. The funds for ISM under NAM are released by GoI to GoTN, which in turn release the same together with its share (40 *per cent*) to the State AYUSH Society, headed by DIMH.

Details of release and utilisation of funds for ISM activities during 2013-18 are given in **Table 2.23**.

**Table 2.23: Release and utilisation of funds**

(₹ in crore)

Year	GoTN funds		NAM funds		NRHM grant	
	Budget provision	Expenditure	Amount released	Expenditure	Amount released	Expenditure
Opening Balance					25.13	
2013-14	177.01	171.51	Nil	Nil	3.75	20.89
2014-15	218.17	204.74	Nil	Nil	9.12	9.38
2015-16	220.16	215.10	11.45	25.88	19.92	15.17
2016-17	262.55	261.82	34.43		12.79	16.91
2017-18	292.74	273.27	17.87		17.26	18.76
Interest earned on bank balance and miscellaneous receipts during 2013-18					2.84	
<b>Total</b>	<b>1,170.63</b>	<b>1,126.44</b>	<b>63.75</b>	<b>25.88</b>	<b>90.81</b>	<b>81.11</b>

(Source: Details furnished by DIMH and Finance Accounts)

The expenditure reported in **Table 2.23**, includes the funds provided to the nodal agency for various procurements, but not yet utilised in full. There were huge balances lying unspent under NRHM and AYUSH which are discussed in the succeeding paragraphs.

### 2.2.7.1 Blocking of NRHM funds in bank account

DIMH maintained a bank account for transacting funds received under the erstwhile Centrally Sponsored Scheme for AYUSH. After the launch of NRHM, DIMH started getting funds from the State Health Society, for which a separate bank account was opened in 2009.

The funds kept in the bank account meant for the erstwhile Centrally Sponsored Scheme for AYUSH were gradually utilised till 2014-15. This account with a balance of ₹ 1.55 crore became inoperative from April 2015. As of March 2018, this account had a balance of ₹ 1.74 crore which included the unspent balance in this account as of March 2015 and the interest earned during 2015-18. DIMH did not maintain any books of accounts for this funds and there was no system of reconciliation of the bank balances with component-wise and year-wise expenditure. As a result, the components of the scheme for which these funds were received were also not known and the sum of ₹ 1.74 crore remained idle in bank account.

The State Health Society started releasing NRHM funds to DIMH from 2009. The State Health Society released (2010) ₹ 54.90 crore under NRHM to DIMH for establishment and operation of the 300 ISM wings in PHCs and hospitals. These funds were meant for various components, viz., buildings, medicines, equipment, etc. As of March 2018, DIMH held a balance of ₹ 9.12 crore in the bank account, out of the sum of ₹ 54.90 crore received eight years back in 2010. The balance held included unspent balance of ₹ 2.06 crore relating to proposed construction of buildings for 17 ISM wings in PHCs, as commented in **Paragraph 2.2.8.2 (b)**, interest accruals, etc. No accounts were maintained by DIMH for these funds and reconciliations were

not carried out monthly as envisaged in NRHM's 'Operational Guidelines for Financial Management'.

Audit observed that due to lack of systematic accounting, DIMH exposed the system to the risk of fraudulent transactions. Further, blocking of Government funds in bank accounts defeated the purpose for which these funds were sanctioned.

In its reply, GoTN claimed (November 2018) that the Chartered Accountants entrusted with preparation of accounts took care of these and stated that the savings bank accounts will be reconciled and the accounts will be maintained properly in future.

### **2.2.7.2 Blocking of funds with TAMPCOL**

In December 2013, GoTN nominated TAMPCOL as the nodal agency for procurement of drugs, equipment, etc. Funds provided in the budget by GoTN, NRHM funds received from State Health Society and AYUSH funds received from the State AYUSH Society were placed at the disposal of TAMPCOL. The details of funds transferred to TAMPCOL towards procurement of medicines, equipment, etc., actually utilised and closing balance are as given in **Table 2.24**.

**Table 2.24: Funds lying idle with TAMPCOL**

Year	Funds with TAMPCOL (₹ in crore)			
	Opening balance with TAMPCOL	Released by DIMH to TAMPCOL	Utilised by TAMPCOL	Closing balance with TAMPCOL
2013-14	0.90	12.14	00.93*	12.11
2014-15	12.11	32.56	23.87	20.80
2015-16	20.80	28.81	29.06	20.55
2016-17	20.55	30.13	28.30	22.38
2017-18	22.38	23.71	23.41	22.68
<b>Total</b>		<b>127.35</b>	<b>105.57</b>	

\* Includes ₹ 0.55 crore remitted back to Government account.

(Source: Details furnished by TAMPCOL)

The major reasons for idling of funds with TAMPCOL were:

- Delay in procurement/non-procurement of equipment and non-utilisation of funds for hiring of manpower through outsourcing for a total sanctioned value of ₹ 12.56 crore, inclusive of the items commented in **paragraph 2.2.8.2 (c)**.
- Delay in procurement/non-procurement of medicines for a sanctioned value of ₹ 4.82 crore under NAM and ₹ 5.30 crore under regular budget, inclusive of items commented in **Paragraph 2.2.10.3**.

Audit observed that DIMH used the nodal agency system to park funds with TAMPCOL in order to avoid surrender at the year end. As at the end of

March 2014, 2015 and 2018, DIMH transferred various scheme funds of ₹ 3.37 crore, ₹ 2.50 crore and ₹ 11.07 crore respectively to TAMPCOL, evidently to avoid surrender of funds at the end of financial year.

### 2.2.7.3 Deficiencies in utilisation of National AYUSH Mission funds

Under the centrally sponsored AYUSH Mission, every year GoI earmarks funds to States and seeks proposals in the form of Project Implementation Plan (PIP). The PIP components approved by GoI are funded by GoI and GoTN in the ratio of 60:40<sup>37</sup>. GoI releases the funds to GoTN, which in turn provides funds through budget for implementation of the approved components. The State AYUSH Society, constituted with DIMH as the Member Secretary, coordinates implementation of the programmes under AYUSH Mission. Receipt and utilisation of AYUSH Mission funds was as detailed in Table 2.25.

Table 2.25: Funds lying idle with State AYUSH Society

(₹ in crore)

Year	Funds earmarked by GoI	Project approved based on PIP	GoI share sanctioned	State share sanctioned	GoI share released to GoTN	Funds with AYUSH Society)			
						Opening balance	Released by GoTN to Society	Utilised by Society	Closing balance
2013-14	NA	18.82	14.12	4.70	0	0	0	0	0
2014-15	13.84	0	0	0	0	0	0	0	0
2015-16	12.63	11.45	6.87	4.58	6.87	0	1.46	1.20	38.13
2016-17	22.10	34.43	20.66	13.77	20.66		29.97	20.00	
2017-18	25.07	35.07	21.04	14.03	21.04		32.32	4.42	

NA: Not available

(Source: Details furnished by State AYUSH Society)

Deficiencies in receipt and utilisation of AYUSH Mission funds are discussed below:

- During 2014-15, GoI earmarked ₹ 8.30 crore<sup>38</sup> as central assistance for AYUSH programme in the State. However, due to delay in establishment of State AYUSH Society, the State could not furnish the PIP to avail the earmarked central assistance of ₹ 8.30 crore. This had adversely impacted the expansion of AYUSH services in the State during 2014-15.
- GoI released its share of ₹ 20.66 crore and ₹ 21.04 crore towards the approved PIP of 2016-17 and 2017-18 respectively to GoTN during the respective years. GoTN, however, did not release the funds to the State AYUSH Society in time. An amount of ₹ 14.44 crore

<sup>37</sup> The sharing pattern was 75:25 till 2013-14.

<sup>38</sup> 60 per cent of the earmarked annual project cost of ₹ 13.84 crore.

pertaining to 2016-17 was released only in February 2018 and ₹ 17.19 crore relating to 2017-18 was not released till July 2018. Non-release/delayed release of funds to the State AYUSH Society had resulted in non-commencement of several projects, such as (a) upgradation of ISM wings in two district hospitals, (b) imparting training to ASHA/ANM/VHN, etc., which were approved in the State Annual Action Plan (SAAP) of Tamil Nadu under NAM for 2016-17 and 2017-18 respectively. Consequently, this impacted delivery of ISM services to the patients.

The State AYUSH Society also failed to fully utilise the GoI and GoTN funds received by it due to reasons discussed below:

- NAM provides funding for State Project Managing Unit (SPMU). During the period from 2015-18, NAM released a sum of ₹ 1.07 crore towards hiring of personnel for SPMU. As the important posts sanctioned for SPMU, such as Programme Manager, Finance Manager, Accounts Manager, MIS Manager, and one post of Consultant were not filled up, only a sum of ₹ 0.14 crore was incurred on salaries till April 2018, leading to non-utilisation of NAM funds to the tune of ₹ 0.93 crore. Audit observed that the failure to strengthen the SPMU despite availability of funds contributed to the deficiencies in the AYUSH Mission activities as commented in the succeeding sub-paragraphs.
- During 2015-16, NAM approved ₹ 0.61 crore towards carrying out Information, Education and Communication (IEC) activities for Siddha, Ayurveda, Homoeopathy, Yoga & Naturopathy and Unani. DIMH utilised only ₹ 0.06 crore towards IEC activities, leading to idling of ₹ 0.55 crore. Thus, the failure of DIMH to utilise the funds had resulted in the neglect of IEC activities.
- During the year 2016-17, NAM approved ₹ 1.55 crore for public health outreach activities such as conducting health education classes through videos, PowerPoint presentation, etc. Other than releasing ₹ 0.58 crore to Electronics Corporation of Tamil Nadu Limited (ELCOT), the nodal agency for procurement of electronic items, no action was taken by the Department. As such, no outreach activities were carried out till September 2018. The balance of ₹ 0.97 crore, out of the approved budget of ₹ 1.55 crore, was kept unutilised after making advance payment to ELCOT.

In its reply, GoTN accepted (November 2018) that even though GoI released its share of NAM funds in the year 2016-17 and 2017-18, the funds could not be released to State AYUSH Society. No reason was furnished for non-release of funds to the State AYUSH Society.

### 2.2.8 Physical infrastructure

The Central Council of Indian Medicine (CCIM), New Delhi, created under the Indian Medicine Central Council Act, 1970, is the regulatory body to guide and develop education and medical practice in Ayurveda, Siddha and Unani. Central Council of Homeopathy (CCH), New Delhi, an autonomous body created under The Homoeopathy Central Council Act, 1973 is mandated to guide and develop education and medical practice in Homoeopathy. These bodies have framed standards stipulating minimum requirement of physical and human infrastructure for colleges and attached hospitals. Tamil Nadu Dr. M.G.R. Medical University, Chennai has issued regulations/statutes for the mandatory requirement of various physical and human infrastructures in Yoga & Naturopathy colleges. No such guidelines/norms were prescribed for ISM medical institutions co-located in Government hospitals and PHCs.

#### 2.2.8.1 Deficiencies in physical infrastructure in ISM Colleges

CCIM and CCH undertake annual inspection of the colleges for renewal of recognition of colleges. Wherever, deficiencies were pointed out by the Inspection Team, the Principals of the colleges gave written undertakings to CCIM and CCH for providing all required infrastructure. The deficiencies, however, continued till date (June 2018) despite such undertakings, as discussed in the succeeding sub-paragraphs:

##### (a) Government Siddha Medical College, Chennai

(i) Among other items, CCIM stipulates a Pathology laboratory and Museum for Siddha Medical Colleges. In May 2013, GoTN accorded administrative approval for construction of an auditorium at Government Siddha Medical College (GSMC), Chennai at a cost of ₹ 75 lakh. The Public Works Department expressed (October 2016) that it would not be technically feasible to construct the proposed auditorium in the first floor of an existing building. DIMH revised (November 2016) the proposal and requested Government sanction to construct a Pathology Laboratory, Museum and class rooms, in place of the auditorium, at a cost of ₹ 1.43 crore. The matter remained under correspondence between DIMH and GoTN, but no decision was arrived at even as of June 2018. The college continued to function without CCIM mandated Pathology Laboratory and Museum, mainly due to non-furnishing of a comprehensive proposal in time by DIMH for mandatory infrastructure and abnormal administrative delays at Government level. It is pertinent to mention that the College has a Post Graduate (PG) course in Pathology and the Undergraduate (UG) course in Siddha has two papers in Pathology and a mandatory two months clinical practice in Pathology for the students. Therefore, Audit observed that the education was incomplete without the Pathology Laboratory as the mandatory practical sessions in a full fledged Pathology Laboratory was not possible.

(ii) CCIM norms stipulate provision of an Animal House in Siddha colleges for keeping laboratory animals used in teaching. In December 2013,

GoTN sanctioned ₹ 1.60 crore for construction of an Animal House at GSMC and the civil works were completed in August 2016. The facility, however, remained idle for two years (June 2018), due to the absence of required staff to commission the animal house. Audit noticed that 19 months after completion of the buildings, the Principal, GSMC sent (March 2018) a proposal for engaging a Veterinarian and three other staff on contract basis. The failure by the Principal to propose staff requirements at the initial stage of construction had resulted in absence of staff to manage the animal house. Consequently, the mandatory facility constructed at a cost of ₹ 1.60 crore remaining idle for two years and the required infrastructure was not made operational. In the absence of Animal House, the students were taken to various colleges for practicals.

**(b) Government Homoeopathy Medical College, Thirumangalam**

(i) Homoeopathic Repertory is a listing of symptoms and those substances that have been found to cause and cure each symptom. As per CCH norms, the Department of Repertory shall be equipped with five computers with related software packages consisting of different Repertories. In December 2013, GoTN sanctioned ₹ 50 lakh for procurement of various equipment for Government Homoeopathy Medical College (GHMC), Thirumangalam. DIMH transferred the sanctioned amount to TAMPCOL (June 2014) for procurement of equipment. The procurement was not completed as the proposal sent by the Principal, GHMC to DIMH seeking approval for procurement from the two sources identified by him was not approved. Absence of an authorised Repertory and reliance on online resources for teaching carried a risk of being unreliable.

(ii) Colorimeter, Electric Potentiser, Electric Triturator and Spectroscope were mandatory equipment under CCH norms for starting post graduate courses in Homoeopathy. Based on a plan to start three PG courses in Homoeopathy at GHMC, Madurai, TAMPCOL, the nodal agency for procurement of medicines and equipment, procured and supplied these four equipment to the College at a cost of ₹ 12.05 lakh in January 2016 by using the sum of ₹ 50 lakh sanctioned in December 2013. The equipment procured were not put into use as the procurement was not synchronised with the commencement of the proposed PG courses. Delay in commencement of the post graduate course resulted in the equipment lying unutilised.

GoTN replied (November 2018) that starting of PG courses in GHMC will be examined afresh in the present context.

**2.2.8.2 Deficiencies in physical infrastructure in ISM hospitals and wings**

**(a) Lack of adequate buildings for ISM wings of allopathic hospitals**

According to Government Order (December 1995), each district headquarters (DHQ) hospital with an ISM wing should have a 10 bedded inpatient ward and other hospitals with ISM wings should have a 5 bedded inpatient ward. Out of 19 sampled taluk and non-taluk hospitals, only eight hospitals had



inpatient (IP) services and in the remaining 11 hospitals, only outpatient services were provided, the details are given in **Appendix 2.8**. Non-availability of IP services contributed to the declining trend in treatment of inpatients in ISM units/hospitals as commented in **Paragraph 2.2.10.1**.

DIMH did not have a comprehensive plan to create inpatient facilities in these hospitals. As a result, despite Government order, ISM services with inpatient facilities were not extended to all hospitals, which defeated the objective of expanding this facility. It was further observed that even the existing IP facilities could not be continued with full strength in district headquarters hospitals in two out of the six sampled districts as discussed in the succeeding sub-paragraphs:

(i) A 16-bedded Siddha wing had been functioning in DHQ Hospital, Sivagangai since May 1998. In 2015, the allopathic wing of the hospital was shifted to the newly constructed Medical College Hospital (MCH) at Sivagangai and GH at Karaikudi was made as DHQ hospital. As the ISM wings could not be accommodated either in the newly constructed MCH or DHQ Hospital, Karaikudi for want of space, the Siddha and Homeo wings continued to operate in the erstwhile DHQ building. The inpatient wing stopped functioning after 2015 due to the dilapidated condition of the building and non-availability of diet facilities. Prior to 2015 a total of 1,149 inpatients were treated during 2012-15. The Directorate of Medical Education did not provide space at the planning stage of the new building for location of the Siddha and Homeo wings of the hospital. Though the DSMO addressed (October 2017) DIMH on this issue, DIMH did not take up this issue with the Director of Medical Education to ensure availability of required space for Siddha IP ward and the IP services continued to be adversely affected.

(ii) An ISM wing with 25-bedded IP ward was functioning from 1984 at DHQ, Dindigul. The dilapidated condition of the building necessitated shifting of the inpatient ward thrice to allopathic buildings, resulting in gradual reduction of bed strength to six as of June 2018. Due to reduction of the bed strength, the number of inpatients treated went down from 5,548 in 2005-06 to 1,636 in 2017-18. Although the issue of space constraint was experienced right from 2010-11, DSMO submitted a proposal for a new building for ISM IP ward using National AYUSH Mission funds only during 2017-18. The proposal was still under consideration of DIMH (August 2018).

GoTN replied (November 2018) that the issue of providing sufficient space for ISM wings in the type design for new DHQ and other hospital buildings was under consideration.

**(b) Lack of adequate space for ISM wings of PHCs**

(i) As per the type design adopted by PWD for ISM wings in PHCs, each wing was to have a space of 76 sq.m. Audit, however, observed that in 32 out of 43 sampled PHCs, the space availability was less than the prescribed norm.

As of March 2018, there were 1,806 PHCs in the State. 927 of them were having ISM wings. Audit scrutiny disclosed that under NRHM, in September 2009, GoTN accorded sanction to establish ISM wings in 300 PHCs during 2009-10 at a cost of ₹ 54.90 crore. The amount sanctioned included ₹ 33.75 crore during 2009-10 for construction of buildings for ISM wings and the balance was for equipment, staff cost and medicine. As of June 2018, construction works were not taken up in 17 PHCs due to various reasons such as non-availability of site, unfavourable soil conditions, non-receipt of tenders for hilly areas, etc. As a result, against ₹ 33.75 crore released for building works, only ₹ 31.69 crore was utilised and ₹ 2.06 crore remained with DIMH.

GoTN replied (November 2018) that buildings could not be constructed at 17 places due to various reasons and taking up construction in new places was explored, but on account of cost escalation they could not be set up. Further, GoTN stated that the central share for these places i.e., ₹ 1.63 crore, would be returned to GoI.

(ii) Similarly, two<sup>39</sup> out of the nine Yoga & Naturopathy Lifestyle Clinics (YNLC) sampled by Audit had less than the stipulated space of 1,500 sq. ft. As a result, at Government Thanjavur Medical College Hospital (GTMCH), Thanjavur, despite posting full complement of staff, therapeutic yoga sessions were not held for multiple patients simultaneously. Further, all equipment for physical workouts were installed in a cramped manner and hydrotherapy equipment like steam bath, etc., were not installed for more than a year for want of space. In District Headquarters Hospital, Karaikudi, the YNLC functioned from a cramped space of 252 sq. ft., wherein all the supplied equipment were stored. Two major equipment viz., hip bath with spinal spray and steam bath cabin with revolving stool, purchased in September 2015 and June 2017, were not being utilised from the date of procurement and other equipment like treadmill, exercise cycle etc., were kept within the consultation room itself without effective use for want of space.

**(c) Deficiencies in provision and maintenance of essential equipment**

Audit of 69 out of the 250 co-located Siddha, Ayurveda and Unani units in the sampled districts disclosed shortage/non-functioning of several essential equipment like treadmill, decoction vending machine, steam bath, exercise cycle, etc., as given in **Table 2.26**, the details are given in **Appendix 2.9**.

**Table 2.26: Shortage/non-functioning of equipment in ISM wings in sampled units**

Name of the equipment	Sampled units	No. of units without the equipment	Percentage of units without the equipment
Treadmill	69	41	59
Steam bath	69	31	45
Decoction vending machine	69	43	62
Exercise cycle	69	48	70

(Source: Data collected from ISM wings)

<sup>39</sup> District Headquarters Hospital, Karaikudi and YNLCs at GTMCH, Thanjavur.

Scrutiny of action taken on procurement of medical equipment and office furniture disclosed non-assessment of requirement, failure to propose the requirement of equipment by medical officers, undue delay in processing of proposals from field units and avoidable delays in procurement as discussed in succeeding paragraphs.

(i) In December 2010, GoTN accorded financial sanction for ₹ 11.25 crore for procurement of furniture and various equipment for establishment of ISM wings in 300 PHCs across the State. DIMH drew the amount, kept in bank account, and utilised only ₹ 2.06 crore towards procurement of furniture and equipment till January 2014. Consequent on nomination (December 2013) of TAMPCOL as nodal agency for procurements, DIMH transferred (January 2014) ₹ 7.50 crore of the remaining ₹ 9.19 crore to TAMPCOL along with the list of furniture. DIMH held the balance of ₹ 1.69 crore in bank account, which formed part of the balance of ₹ 9.12 crore (**Paragraph 2.2.7.1**). Over the next four years, TAMPCOL utilised ₹ 5.57 crore for procurement of part of the furniture and equipment indented by DIMH and held a balance of ₹ 1.93 crore (March 2018). TAMPCOL stated (June 2018) that additional indents for utilising the balance of ₹ 1.93 crore were received from DIMH in September 2017 and action was being taken. Delays by DIMH and TAMPCOL in procurement resulted in ISM units lacking the required equipment. Even as of June 2018, TAMPCOL had not called for tender to procure the required equipment.

(ii) In the test-checked co-located ISM units in Government hospitals and PHCs, several equipment supplied during 2009-15 were lying under disuse/ repair as given in **Table 2.27**.

**Table 2.27: Non-commissioning and non-functioning of equipment**

Name of the Equipment	Total number supplied	Equipment not functioning	Percentage of unserviceable/ non-functioning equipment
Treadmill	28	18	64
Steam bath	38	19	50
Decoction vending machine	26	14	54
Exercise cycle	21	4	19
<b>Total</b>	<b>113</b>	<b>55</b>	<b>49</b>

(Source: Data collected from ISM wings)

As seen from **Table 2.27**, nearly 50 *per cent* of the equipment supplied were found to be non-commissioned/non-functional as the medical officers concerned did not take effective action to commission several equipment for want of space and support staff and the equipment that went out of order were not rectified in time due to the absence of annual maintenance contract. The details of district-wise number of non-functioning equipment are given in **Appendix 2.9**.

(iii) Based on the indents furnished by DIMH, TAMPCOL supplied (2014 to 2017) 13 types of equipment, such as Thokkanam table, examination table, steam bath, treadmill, etc., to 12 ISM wings in PHCs of The Nilgiris District. Audit noticed that nine of these ISM wings had ceased functioning

between March 2011 and September 2013 due to non-posting of doctors. DSMO, The Nilgiris District, did not take any action to transfer the equipment to PHCs with functional ISM wings. The equipment continued to remain idle in PHCs without a functional ISM wing. The value of the equipment lying idle was ₹ 15.48 lakh as given in **Appendix 2.10**.

**(d) Non-functioning of computerised system for hospital management**

As per CCIM and CCH norms, the ISM Medical College Hospitals (ISM-MCHs) should maintain web-based system for maintaining the records of patients in outpatient (OP) and IP departments. However, none of the four sampled ISM-MCHs had a functional computerised system.

- Using NRHM funds, 24 computers and related networking infrastructure were procured (2015) for computerisation of Arignar Anna Government Hospital of Indian Medicine (AAGHIM), Chennai. Effective action was not taken for developing software leading to non-functioning of the computerised system for patient registration and maintenance of medical records.
- Government Unani Medical College (GUMC), Chennai engaged TAMPCOL in July 2016 for procurement of software for Hospital Work Management System. After a delay of two years, TAMPCOL procured and supplied the software in June 2018 at a cost of ₹ 0.95 lakh. The software was not put into use (August 2018) as the local area network for computers was not ready.
- In Government Ayurvedic Medical College (GAMC), Nagercoil the computers and software procured (August 2016) at a cost of ₹ 10.13 lakh was being used only for registering the patients and the database regarding medical history of the patient, medicines prescribed and issued etc., were not being maintained on the system due to lack of manpower.

Thus, despite provision of funds, the Principals of three ISM colleges did not upgrade the facilities to the standards mandated by respective Central Councils. The Principal of GHMC, Thirumangalam did not send any proposal in this regard.

GoTN, replied (November 2018) that possibilities of obtaining software for each ISM college under NAM funds will be explored and on getting grants, software available in the market will be utilised.

### **2.2.9 Human infrastructure**

CCIM and CCH had laid the norms for provision of manpower in ISM medical colleges and attached teaching hospitals. DIMH and GoTN have set standards for provision of manpower in co-located ISM units. Audit scrutiny of action taken towards meeting the set standards disclosed several deficiencies as discussed in the succeeding paragraphs.

### 2.2.9.1 Shortage of manpower in ISM Medical Colleges and attached Teaching Hospitals

Shortage of teaching staff in the sampled medical colleges with reference to CCIM/CCH norms was as given in **Table 2.28**.

**Table 2.28: Shortage of teaching staff**

Sl. No.	Medical College	Requirement as per norms	Actual	Shortage	Shortage (Percentage)
1	GHMC, Thirumangalam	32	23	9	28
2	GSMC, Chennai	50	69	Nil	-
3	GY&NMC, ** Chennai	68	13	55	81
4	GUMC, Chennai	30	29	1	3.3
5	GAMC, Nagercoil	40*	27	13	32.5

\* Including 10 Modern/Allopathy teaching staff.

\*\* Government Yoga and Naturopathy Medical College.

(Source: Details furnished by respective colleges)

The shortage of teaching staff in medical colleges was most marked in GY&NMC, Chennai (81 per cent), GAMC, Nagercoil (33 per cent) and GHMC, Thirumangalam (28 per cent). Audit observed that:

- GY&NMC, Chennai started functioning from 2000. As of March 2018, 55 out of the 68 required post of teaching staff were vacant. Timely action was not taken for filling up the vacancies. The recruitment rules, for the entry level post of Assistant Lecturer, was approved only in January 2015. Even after approval of the Rules, it took two more years for DIMH to request Tamil Nadu Medical Recruitment Board to start the recruitment process for Assistant Lecturers. The recruitment process was not completed as of June 2018. Thus, delay in framing Recruitment Rules and lack of committed action to fill up the posts had resulted in the college functioning with huge vacancies.
- In an ideal situation, existing vacancies and vacancies arising over a period of time should be assessed and recruitment process initiated periodically. Besides, during 2013-18, recruitment processes for 401 posts were held up due to judicial interventions, non-framing of recruitment rules, etc. All these contributed to the vacancies in these medical colleges with possible repercussions on the quality of education.

GoTN replied (November 2018) that all possible efforts were being taken for filling up of the vacancies in order to fulfill the norms of regulatory/affiliating bodies.

### 2.2.9.2 Temporary diversion of staff to fulfill CCH and CCIM norms

CCH/CCIM norms require availability of prescribed manpower for continued recognition of ISM medical colleges. In GHMC, Thirumangalam and GAMC, Nagercoil, in order to fulfil the norms during CCH/CCIM inspection, DIMH

temporarily posted staff from other hospitals on deputation basis for a short period of one day to three weeks.

In respect of GHMC, Thirumangalam, DIMH resorted to the temporary shifting of staff from ISM hospital side for periods ranging from one day to three weeks during CCH inspection. In respect of GAMC, Nagercoil, modern medical staff of the Government Allopathic Medical College Hospital were drawn for part-time work on temporary basis. DIMH sent a proposal to GoTN in June 2017 for hiring part-time teaching staff (modern medicine) from the allopathic side on deputation basis. The proposal was under the consideration of GoTN as of June 2018.

Temporarily diverting of part-time teachers from other institutions to fulfil Central Council norms during inspection helped the colleges and institutions from being disqualified by the Central Council by hiding the vacancies.

GoTN replied (November 2018) that DIMH's proposal for the creation of 10 posts of modern medicine doctors to work on part-time basis was under consideration.

### **2.2.9.3 Deficiencies in human infrastructure for ISM hospitals and wings**

The shortage of manpower across various posts ranged from 10 to 38 *per cent* in regular ISM wings, 48 *per cent* in ISM wings created under NRHM scheme and 100 *per cent* in ISM wings created under AYUSH (**Appendix 2.11**).

**Pharmacists:** Among paramedical staff, Pharmacist vacancies ranged from 22 *per cent* (Siddha Pharmacist) to 72 *per cent* (Ayurveda Pharmacist). DIMH was in correspondence with GoTN and Medical Recruitment Board for filling up these posts right from 2007. Recruitment was still pending (July 2018).

**AYUSH Consultants:** Under NRHM, GoTN approved (September 2009 and December 2010) hiring 475 AYUSH Consultants for PHCs on contract basis with hiring charges of ₹ 1,000 per session of six hours per day. DIMH issued (September 2016) a recruitment notice for filling up 99 posts. However, acting on a case filed by persons aggrieved by the selection process, the Hon'ble Madras High Court stayed (November 2016) the recruitment process. DIMH had not filed any counter petition before the Court to vacate the stay. The stay was vacated (February 2018) only in respect of recruitment of Homoeopathy Consultant based on a petition filed by aggrieved candidates. As of July 2018, no recruitment was done.

**Dispenser, Therapeutic Assistant and MPW:** GoTN permitted DIMH (September 2009 and December 2010) to hire 424 AYUSH Dispensers, 71 Therapeutic Assistants and 475 Multi-Purpose Workers (MPW) on contract basis for ISM wings under NRHM scheme. The recruitment was carried out (2009 and 2011) on Employment Exchange seniority basis. Vacancies arising due to resignation/termination of these contract staff were not filled up due to non-issue of modalities for recruitment in the subsequent years, leading to

68, 94 and 46 per cent of the posts of Dispenser, Therapeutic Assistant and MPW respectively lying vacant as of August 2018.

#### 2.2.9.4 Non-functioning and partial functioning of ISM wings

In the six sampled districts, 31 out of the 297 ISM units stopped functioning between 2009 and 2017 due to shortage of doctors (**Appendix 2.12**). Further, the existing doctors were made in charge of more than one ISM Unit due to shortage of ISM doctors. In view of this diversion of doctors, the availability of doctors in ISM units got reduced to the range of two to four days as against six days per week as detailed in the **Table 2.29**.

**Table 2.29: Partial functioning of ISM wings**

District	Availability of doctors		Total number of Units functioning partially
	Units working 2 days per week	Units working 3 to 4 days per week	
Dindigul	2	1	3
Sivagangai	1	0	1
Thanjavur	2	6	8
The Nilgiris	5	5	10
Vellore	3	0	3
<b>Total</b>	<b>13</b>	<b>12</b>	<b>25</b>

(Source: Details furnished by respective ISM wings)

Non-functioning and partial functioning of ISM wings resulted in curtailment of services to needy people.

#### 2.2.10 Medical care through ISM hospitals and wings

##### 2.2.10.1 Performance of ISM hospitals/wings

The details of medical care extended by ISM medical institutions during 2013 to 2018 are as given in **Table 2.30**.

**Table 2.30: Inpatients and outpatients treated in ISM hospitals and wings**

Year	IP/OP	Siddha	Ayurveda	Unani	Homoeo	Y&N	Total
2013*	OP	2,59,81,919	16,23,834	4,08,040	22,86,531	6,02,073	<b>3,09,02,397</b>
	IP	2,28,781	36,420	14,050	19,761	0	<b>2,99,012</b>
	<b>Total</b>	<b>2,62,10,700</b>	<b>16,60,254</b>	<b>4,22,090</b>	<b>23,06,292</b>	<b>6,02,073</b>	<b>3,12,01,409</b>
2014*	OP	2,66,28,167	17,30,393	4,57,457	6,96,534	22,28,813	<b>3,17,41,364</b>
	IP	2,16,803	40,779	10,994	15,246	0	<b>2,83,822</b>
	<b>Total</b>	<b>2,68,44,970</b>	<b>17,71,172</b>	<b>4,68,451</b>	<b>7,11,780</b>	<b>22,28,813</b>	<b>3,20,25,186</b>
2015-16	OP	2,74,34,621	18,49,742	6,33,840	22,93,760	19,65,251	<b>3,41,77,214</b>
	IP	1,81,133	34,895	15,964	11,396	0	<b>2,43,388</b>
	<b>Total</b>	<b>2,76,15,754</b>	<b>18,84,637</b>	<b>6,49,804</b>	<b>23,05,156</b>	<b>19,65,251</b>	<b>3,44,20,602</b>

Year	IP/OP	Siddha	Ayurveda	Unani	Homoeo	Y&N	Total
2016-17	OP	2,81,42,899	20,08,905	7,68,385	25,05,386	24,14,410	<b>3,58,39,985</b>
	IP	1,91,589	46,938	16,885	18,179	8,156	<b>2,81,747</b>
	<b>Total</b>	<b>2,83,34,488</b>	<b>20,55,843</b>	<b>7,85,270</b>	<b>25,23,565</b>	<b>24,22,566</b>	<b>3,61,21,732</b>
2017-18	OP	2,83,06,427	20,16,471	8,06,228	25,72,081	28,72,349	<b>3,65,73,556</b>
	IP	2,09,447	50,191	17,023	17,570	17,575	<b>3,11,806</b>
	<b>Total</b>	<b>2,85,15,874</b>	<b>20,66,662</b>	<b>8,23,251</b>	<b>25,89,651</b>	<b>28,89,924</b>	<b>3,68,85,362</b>

\* Calendar year

(Source: Details furnished by DIMH)

As could be seen from **Table 2.30**, the outpatients availing medical treatment continued to increase. However, the number of inpatients treated came down sharply from 2.99 lakh in 2013 to 2.43 lakh in 2015-16, a decrease of 19 *per cent*, but registration increased in the subsequent years. The IP strength of the more popular Siddha wing also came down from 2.28 lakh in 2013 to 2.09 lakh in 2017-18. The decrease could be attributed to non-availability of services, non-functioning of IP wards, etc., due to shortage of physical and human infrastructure as commented in **Paragraph 2.2.8**.

#### **2.2.10.2 Deficiencies in rendering medical care**

##### **(a) X-ray services**

As per the CCIM norms, ISM hospitals attached to an ISM medical college should have a radiology section with X-ray machines and allied accessories. Audit observed hindrance to medical care due to non-functioning of X-ray units.

- In GAMC, Nagercoil, Radiology section was not functioning as the post of Radiographer and Dark Room Attendant were not filled up. As a result, the X-Ray machines and allied accessories purchased between January 2016 and March 2016 at a cost of ₹ 5.90 lakh were unutilised till date (June 2018) and patients were forced to avail the facilities from Kanyakumari Government Allopathy Medical College Hospital, which is at a distance of about 5 kms and thus, the ISM patients are put into hardships. Audit noticed that the procurement of X-ray unit was not synchronised with posting of required staff. The Principal, GAMC, Nagercoil periodically requested DIMH to post X-ray technician and Radiographer sanctioned by GoTN in December 2015, but no action was taken (June 2018).
- As per Atomic Energy (Radiation Protection) Rule, 2004, the approval of Atomic Energy Regulatory Board (AERB) is mandatory for operation of X-ray units in hospitals. GHMC, Thirumangalam and the attached MCH is equipped with an X-ray machine, installed in March 1997 at a cost of ₹ 4.25 lakh. The X-ray unit was functioning without the mandatory approval of AERB right from



the date of installation. The Principal, GHMC, Thirumangalam replied that with a view to obtain AERB approval, a proposal was being submitted for a new X-ray room fulfilling AERB norms. In the absence of AERB certification, Audit could not derive assurance, that the safety of the operator and 1,596 patients who underwent diagnosis in this unit, were ensured.

- X-ray services were not functional in AAGHIM, Chennai from March 2017 to May 2018 due to non-filling up of the post of Radiologist and non-supply of X-ray film.

**(b) Curtailment of services**

(i) Thokkanam/Panchakarma services (medicinal oil massages) are essential part of Siddha/Ayurvedic treatment methods. Paramedical staff (Masseur) render these services to the patients. Masseurs to render these services were not available in 63 of the 64 sampled Siddha/Ayurveda wings.

It was noticed that in 61 of the above ISM Wings, posts of Masseur were not sanctioned and in two ISM Wings, the sanctioned posts were not filled up. In the absence of Masseur, the doctors themselves claimed to administer the treatment. Audit observed that the number of patients treated per doctor was very high making it impractical for the doctors to spare time for rendering Thokkanam/Panchakarma treatment, which is generally rendered by paramedics. In GAMC, Nagercoil, shortage of Masseur had resulted in stoppage of Panchakarma treatment to outpatients.

(ii) As per CCIM norms, Ayurveda Medical College Hospital should have a Physiotherapy unit with one physiotherapist. In GAMC, Nagercoil, physiotherapy services were not provided from 2009 to till date (June 2018) due to non-availability of physiotherapist.

(iii) The treatment regimen of ISM involves strict adherence to prescribed diet. According to a proposal submitted (May 2014) by the Medical Superintendent, AAGHIM, adherence to proper diet was part of the treatment process in ISM. As the standard diet being supplied as per TN medical code was devised for allopathic patients, it was not considered suitable for ISM patients. Therefore, the Medical Superintendent, AAGHIM constituted (March 2014) a Committee and based on the recommendation (June 2014) of the Committee, a proposal for modified improved diet, which included different porridges suitable for ISM, was sent to DIMH in June 2014. DIMH approved (September 2014) the modified improved diet with a condition that the expenditure on the modified diet should be incurred within the budget allotment. The Medical Superintendent, AAGHIM replied (April 2018) to Audit that due to insufficient budget allotment, the modified improved diet could not be provided to patients till date (June 2018) and only the standard diet was continued to the patients.

### 2.2.10.3 Deficiencies in procurement and supply of medicines

Medicine requirements of ISM hospitals are met primarily through TAMPCOL. The Pharmacy attached to AAGHIM, Chennai is also a supplier. TAMPCOL supplies its own Siddha, Ayurveda and Unani products and also procures from market through tender system and supplies to ISM institutions. Regarding Homoeopathy medicines, as TAMPCOL has no in-house production, the entire requirement is procured from the market through tender system. The Pharmacy at AAGHIM manufactures Siddha and Ayurveda medicines in limited quantity for hospital consumption. It also manufactures Unani medicines, which are supplied to other Unani units as well. Lapses noticed in procurement and supply of medicines manufactured by TAMPCOL as well as the medicines procured by TAMPCOL from market (outsourced medicines) are discussed in the succeeding paragraphs.

Medicine requirements of ISM units are consolidated by DSMOs and sent to TAMPCOL. Scrutiny of medicine indents and actual supply of medicines, which were to be manufactured and supplied by TAMPCOL disclosed failure of TAMPCOL in supplying the indented quantity during 2016-18 as given in **Table 2.31**.

**Table 2.31: Details of medicine supplied by TAMPCOL (₹ in crore)**

Year	Value of Indent	Supplied by TAMPCOL
2016-17	25.88	12.14 (47 per cent)
2017-18	21.90	11.05 (50 per cent)

(Source: Details furnished by TAMPCOL)

The **Table 2.31** showed that TAMPCOL was unable to supply the indented quantity as manufacturing plan was not based on the indent received from field units. The General Manager, TAMPCOL stated (September 2018) that sufficient funds were not provided to meet the indents. DIMH, however, did not take effective action to improve medicine supply by TAMPCOL.

During 2016-17, DIMH transferred ₹ 9.11 crore from regular budget (₹ 2 crore) and NRHM funds (₹ 7.11 crore) to TAMPCOL for procurement of outsourced medicines. TAMPCOL floated (November 2016) open tenders for the purchase of Siddha, Ayurveda and Homoeopathy medicines for regular wings as well as for NRHM wings. Rates for procurement of medicines were also finalised. However, it was decided (March 2017) by TAMPCOL to procure only Homoeopathic medicines and the tender in respect of Siddha and Ayurveda medicines were deferred without any specific reason. In respect of Unani medicines, departing from the usual procedure of sourcing medicine from TAMPCOL, DIMH decided to manufacture and supply the medicines through the pharmacy attached to AAGHIM.

As a consequence of non-procurement of outsourced medicines by TAMPCOL during 2016-17, Siddha and Ayurveda wings received only limited stock of TAMPCOL's own manufactured medicines. Outsourced medicines were not supplied. Unani wings of hospitals/PHCs across the State

did not receive any medicines from TAMPCOL during 2016-17. Audit noticed that the sampled Unani wings at PHC, Amoor was running without any medicines for 11 months from July 2017 to May 2018, whereas other sampled Unani wings receiving limited stock from AAGHIM during the year. The Unani Doctor provided only consultation. Medicines were not issued to about 90 patients who attended the Unani unit every day. This indicated disruptions in medicine indenting system.

The failure of TAMPCOL and DIMH in procuring required medicines severely impacted the quality of services as the Unani doctors could only provide consultations.

The Homoeopathic stream also faced shortage of medicines; shortage in GHMCH, Thirumangalam was 84 and 96 *per cent* of the indented medicines during 2014-15 and 2015-16 respectively, despite availability of budget allotment.

GoTN replied (November 2018) that the demands/indents submitted by DSMOs could not always be honoured in full, due to budgetary constraints. TAMPCOL was forced to downsize the indents to ensure fair distribution of drugs to all ISM wings. The reply did not address the concern raised on the shortage of medicines.

#### 2.2.10.4 Functioning of Drug Testing Laboratory

GoTN notified (November 2007) DSMOs as Drug Inspectors (DI) under the Drugs and Cosmetics Act, 1940 and Rules, 1945. DSMOs lift drug samples from manufacturers and retailers and send to the Drug Testing Laboratory. A Drug Testing Laboratory (Indian Medicine), conferred with statutory status, is functioning at AAGHIM Complex to test the quality of statutory samples lifted and sent by the DSMOs.

The Laboratory was to ensure the quality of drugs in terms of identity, purity and strength as per Siddha, Ayurveda and Unani Pharmacopoeias.

Audit noticed shortfall in testing the samples with reference to the targets set by DIMH as given in **Table 2.32** and the details of which are given in **Appendix 2.13**.

**Table 2.32: Shortfall in drug testing**

Year	No. of drug Inspectors	Drug sample Target	Sample drawn for testing	Shortfall
2013-14	23	966	783	183
2014-15	23	1,449	1,376	73
2015-16	23	2,208	1,800	408
2016-17	23	2,208	1,806	402
2017-18	23	2,208	1,906	302

(Source: Details furnished by Drug testing laboratory)

As per Section 23 of the Act, whenever the Drug Inspector lifts any sample of a drug, he/she shall tender the fair price thereof. Drug Inspectors of two test-checked districts (Vellore and Sivagangai) stated that the shortfall in achievement of target was due to non-availability of funds for paying the cost

of the samples to be lifted by them. Despite fixing the targets, DIMH failed to monitor the achievement and no action was taken to facilitate achievement of targets by providing required facilities/funds.

***Delay in issue of drug analytical report***

Timely testing of drug samples is necessary to freeze spurious drugs from circulation. Audit noticed that there was a delay of six months to one year in testing and issue of drug analysis report by the Drug Testing Laboratory. During the period 2013-18, 372 out of 6,702 samples tested, were found to be 'Not of Standard Quality (NSQ)'. Audit noticed that out of which, 82 drug analysis reports were issued with a marked delay of six months to one year. Due to delay in issue of drug analysis reports, the DI could not freeze or recall the NSQ drugs from the market immediately.

In reply, it was stated that the delay in issue of drug analysis report was due to shortage of manpower in the Drug Testing Laboratory. Both the sanctioned posts of Scientific Officer of the Laboratory were vacant from June 2013 onwards and the laboratory functioned only with the four sanctioned posts of Assistant Scientific Officers. Further, the proposal (April 2017) of the Government analyst of the Laboratory to DIMH for sanction of 10 additional posts of Scientific Officers to "complete the analysis and report in time" was not agreed to by DIMH.

Provision of adequate funds for lifting samples and adequate staff for the laboratory, are critical requirements for weeding out spurious drugs.

**2.2.10.5 Non-obtaining of NABH accreditation**

National Accreditation Board for Hospitals and Healthcare (NABH), New Delhi, provides accreditation to hospitals. Accreditation helps to improve the quality of health care services by benchmarking with the best in the field.

In order to obtain NABH accreditation for AAGHIM, Chennai, based on the proposals of DIMH, GoTN sanctioned (October 2013) ₹ 10 crore towards one new block of building, roads, etc., (₹ 7 crore), additional manpower (₹ 1.50 crore), machinery and equipment (₹ 1 crore), consultancy and others (₹ 0.50 crore). Using ₹ 7 crore sanctioned for building and other related infrastructure, during 2014-16, a three storey building was completed and major improvements were carried out for the sewage system. Out of ₹ 1 crore sanctioned for equipment, one boiler for the hospital pharmacy and other equipment were procured (2014-16) at a cost of ₹ 82.74 lakh and the balance amount remained idle with TAMPCOL (July 2018). Audit noticed that:

- Despite completing the building in 2016, only the ground floor was put to use as of July 2018. The proposed IP wards in first and second floors were not commissioned till July 2018. Audit observed that none of the 113 posts proposed under the upgradation project were sanctioned as GoTN considered (July 2017) that the proposal was on the higher side. Further action was not taken by DIMH to revise the proposal.

- The sewage system constructed by Chennai Metropolitan Water Supply and Sewerage Board at a cost of ₹ 1.71 crore was not properly functioning as stagnation of water was noticed during joint physical verification (May 2018) near the IP wards of the hospital due to laying of improper sewerage facilities. The problem with sewage discharge was not fully addressed as the matter was not taken up with CMWSSB (May 2018).
- Among the sanctioned items, the boiler for pharmacy was procured (₹ 38.51 lakh) and installed (2017) but not put to use (July 2018). The hospital did not have personnel for boiler operation and no action was taken to recruit the staff. Equipment proposed for Quality Control Laboratory (QC Lab) at a cost of ₹ 15 lakh were not fully procured till July 2018 and hence, the QC Lab could not be commissioned (July 2018).
- Despite specific sanction of ₹ 0.50 crore for engaging a consultant for technical advice on obtaining accreditation, DIMH had not engaged a consultant and addressed (April 2014) NABH, seeking the modalities for obtaining accreditation. As no reply was received from NABH, no further action was taken to apply for accreditation.

Thus, due to non-commissioning of (i) IP wards, (ii) upgraded pharmacy and (iii) QC Lab due to (a) non-posting of additional personnel, (b) non-engagement of a consultant and (c) delay in procurement of equipment, the proposal to obtain NABH accreditation at an estimated cost of ₹ 10 crore had failed despite incurring the expenditure.

#### **2.2.10.6 Non disposal of bio-medical waste**

According to the Bio Medical Waste Management Rules, 2016, the institution generating bio-medical waste shall take all necessary steps to ensure it is handled without any adverse effect to human health and the environment. During the joint physical verification of GAMCH, Nagercoil on 25 May 2018, it was noticed that bio-medical waste such as needles, disposable pipette used in the laboratory, etc., were dumped in cardboard boxes and kept in a separate room. The bio-medical wastes were not being disposed off as the hospital had no tie-up with the agencies for disposal of biomedical wastes.

The Principal, GAMCH, Nagercoil stated (July 2018) that the action was being taken to avail the services of the bio-medical waste disposal agency. The Principal cited inadequate allotment of funds as a reason for not engaging the agency. The reply was not tenable as the Principal had never requested DIMH for funds to organise bio-medical waste disposal.

#### **2.2.11 Education and research in ISM**

ISM health services and ISM education are one organic whole and deficiency in one would adversely impact the others as well. In addition to the hospitals and ISM wings, six ISM colleges in the Government fold and 22 other private colleges function in the State.

### 2.2.11.1 Admissions in ISM colleges

The year wise admissions in GoTN's ISM colleges during 2013-18 were as given in **Table 2.33**.

**Table 2.33: Details of intake capacity and Admissions in ISM colleges**

Stream	Intake capacity		Admissions				
			2013-14	2014-15	2015-16	2016-17	2017-18
Siddha	UG	Up to 2014-15 - <b>150</b>	148	133	155	160	159
		From 2015-16 - <b>160</b>					
	PG	<b>94</b>	93	93	90	93	94
Yoga & Naturopathy	UG	Up to 2013-14 - <b>20</b>	20	59	60	60	60
		From 2014-16 - <b>60</b>					
	PG	<b>15</b>	-	15	15	15	15
		(Started from 2014-15)					
Ayurveda*	UG	Up to 2014-15 - <b>50</b>	49	50	60	60	60
		From 2015-16 - <b>60</b>					
Unani*	UG	Up to 2015-16 - <b>26</b>	26	26	26	60	60
		From 2016-17 - <b>60</b>					
Homoeopathy*	UG	<b>50</b>	50	50	50	50	50

\* PG courses are not conducted.

(Source: Details furnished by DIMH)

As could be seen from **Table 2.33**, while PG courses were not offered in Ayurveda, Unani and Homoeopathy, the intake capacity of PG programmes in Siddha and Yoga & Naturopathy remained stagnant. Academic research in ISM, despite being one of the policy directives of GoTN, did not receive due importance as none of the colleges offered Ph.D programmes. In terms of intake capacity for UG courses, there were increases except in the Homoeopathy stream.

### 2.2.11.2 Pass percentage

Pass out percentage is a measure of the performance of educational institutions. The number of students graduating bachelor degree courses within the prescribed duration of study in the test-checked ISM colleges was *82 per cent*, *69 per cent*, *74 per cent*, *67 per cent* and *88 per cent* in Siddha, Ayurveda, Homoeopathy, Unani and Yoga & Naturopathy streams respectively during 2013- 18.

In addition to the shortage of infrastructure and manpower in ISM medical colleges, as commented in **Paragraphs 2.2.8** and **2.2.9**, other issues which had a bearing on the quality of education are discussed in the succeeding paragraphs.

### 2.2.11.3 Graduation outcome

In order to assess the graduation outcome in terms of securing employment, job satisfaction of ISM graduates etc., Audit undertook a postal survey among 352 graduates who graduated between 2015 and 2017. Out of 352 graduates, 65 graduates (18 *per cent*) responded to the survey, which revealed that:

- 34 out of 65 ISM graduates (52 *per cent*) remained unemployed after more than one year of graduation.
- Out of 31 graduates employed, 19 graduates (61 *per cent*) earned income less than ₹ 15,000 pm.
- 35 graduates (54 *per cent*) stated that they were not able to start their own practice due to financial difficulties.
- 15 graduates (23 *per cent*) expressed their opinion that the course did not prepare them adequately for employment and 28 graduates (43 *per cent*) opined that the course did not fulfill their expectations.
- 22 graduates (34 *per cent*) who were not satisfied with the course expressed the reason as lack of employment opportunities.

The graduation outcome as discussed above indicated that the ISM graduates had limited career options despite spending five years. Audit also observed that the Government did not undertake any assessment of requirement of ISM medicos and creation of job opportunities and self-employment to the ISM graduates.

### 2.2.11.4 Non-commencement of PG courses

GoTN started PG courses in Siddha from 1998-99 and PG courses in Yoga & Naturopathy from 2014-15. The initiative taken (2008) to commence PG courses in Homoeopathy did not materialise.

In 2008, the Principal, GHMC, Thirumangalam, proposed for starting of Post-Graduation MD courses in three specialities in Homoeopathy with a total intake of nine seats. GoTN approved (May 2008) the proposal and sanctioned ₹ 6 lakh, the fee payable to CCH, New Delhi. GoTN also sanctioned (September 2008) creation of 23 additional posts to fulfil the requirement as per the CCH norms. GoTN replied (September 2018) to Audit that due to administrative reasons, these posts could not be filled up. The Tamil Nadu Dr. M.G.R. Medical University, Chennai, issued (November 2008) a Letter of Consent of Affiliation for starting the MD courses with an annual intake of nine seats with three seats each. CCH conducted inspection of the college in November 2009, but did not accord approval for starting the PG courses. The Inspection Team pointed out inadequate teaching staff for starting PG courses.

In reply, the Principal, GHMC, Thirumangalam stated that a detailed proposal for starting the PG courses was sent again to DIMH in June 2014. The Principal, GHMC, Thirumangalam also requested DIMH to fill up the vacant posts as per the CCH norms for starting the PG courses. Action taken by DIMH was not on record. And the proposal of 2008 to start PG courses in Homoeopathy did not materialise (July 2018).

### **2.2.11.5 Non-establishment of research and development wing**

Government of India published (2011-16) pharmacopeia specifications for raw drugs and prepared medicines of Siddha, Ayurveda and Unani systems of medicine. In order to enforce standard manufacture of these medicines, standardisation of drugs and medicines and for further research of herbs, GoTN sanctioned (December 2013) ₹ 12 crore for establishment of a research and development wing at AAGHIM campus, Chennai (**Exhibit 2.9**). The sanction included ₹ 6 crore for buildings, ₹ 4.02 crore for equipment and ₹ 1.69 crore for staff salaries and for other items of expenditure.

**Exhibit 2.9: Newly constructed building for R&D wing lying idle**



**Exterior view of R&D building at AAGHIM, Chennai**



**Furniture purchased for R&D building at AAGHIM, Chennai**

(Source: Photograph by Audit team during joint physical verification on 04 July 2018)

The PWD completed the construction of the new building and handed over the completed building to DIMH in June 2017. Audit, however, noticed that the R&D activities did not commence even as of June 2018 due to the following reasons.

DIMH released (July 2014) the entire sanctioned amount of ₹ 4.02 crore to TAMPCOL for procurement of medical equipment. The details of specifications of equipment to be procured, however, were given by DIMH to TAMPCOL only in May 2017, i.e. about three years after sanctioning. TAMPCOL floated the tenders for purchase of the equipment on 01 August 2017 and found that the total cost of procurement would exceed the sanctioned amount by ₹ 0.56 crore. The request (February 2018) of TAMPCOL for additional sanction was not processed by DIMH (June 2018). As a result, the equipment were not procured. Further, in respect of human resources, out of 49 posts sanctioned, only two posts were filled-up. DIMH did not take steps to recruit staff. Thus, due to non-synchronising the equipment procurement with civil works for the buildings and recruiting the required staff, the R&D building constructed at a cost of ₹ 6 crore was kept vacant for more than one year and the objective of furthering R&D was not achieved.



### 2.2.11.6 Non-realisation of the benefits of ancient knowledge in Siddha system

Over a period of time, DIMH collected 1,068 manuscripts from various sources. These manuscripts, originally written long back in palm leaves and other media were to be deciphered by transcribers with command over ancient Tamil script and language. Out of the 1,068 manuscripts collected by the Department, only 450 manuscripts (42 *per cent*) were deciphered so far and 20 books were published based on the manuscripts deciphered. Audit noticed that the posts of Tamil Pandits<sup>40</sup> and four out of five posts of Transcribers in the Manuscript Department of DIMH, Chennai were lying vacant for three to ten years. Remaining one Transcriber was also transferred to central library and thus all the five posts of Transcribers are lying vacant (July 2018). As a result, no action was underway to decipher and transcribe from palm leaf manuscripts to harvest the ancient knowledge on Siddha system.

The National Mission for Manuscripts had stipulated minimum requirements for conservation of manuscripts, which included climate control and other facilities to prevent degradation of manuscripts. Audit, however, noticed during inspection on 05 June 2018 that the original palm leaf manuscripts were dumped in a dusty and unventilated room along with other office documents and records (**Exhibit 2.10**). The air-conditioner installed at the room was not in working condition and there was no quarantine room available separately for the manuscripts, as stipulated in the National Policy.

**Exhibit 2.10: Storage of manuscripts**



(Source: Photograph by Audit team during joint physical verification on 05 June 2018)

The Department not only failed to harness the ancient knowledge on Siddha medicine by transcribing from palm leaf, it had put the palm leaves to danger by dumping them in rooms without environmental control which could result in their degradation.

GoTN replied (November 2018) that the International Institute of Tamil Studies, Chennai has acceded to the request of DIMH to store the manuscripts at their centre after the process of its digitalisation is over. The ownership of manuscripts will continue to be retained by DIMH.

<sup>40</sup> One with expert knowledge.

#### **2.2.11.7 Insufficient System to detect quacks**

GoTN enacted Tamil Nadu Private Clinical Establishments (Regulation) Act, 1997 to regulate clinical establishments in the State. The Act envisages maintenance of database of clinical establishment (ISM) by DIMH. However, DIMH neither developed the database of clinical establishments (ISM) nor issued any guidelines for identifying quacks practising as doctors in the field of ISM as the rules under the Act was framed only in March 2018.

It was replied that as and when complaints were received, action was taken by Quack Eradication Committee. DIMH lacked a comprehensive procedure to curb the menace of quacks cheating the general public by spurious drugs and treatment.

#### **2.2.12 System to detect and prevent errors/omissions**

The errors/omissions pointed out are on the basis of a test audit. The Department/Government may, therefore, undertake a thorough review of all units to check whether similar errors/omissions have taken place elsewhere, and if so, to rectify them; and to put a system in place that would prevent such errors/omissions.

#### **2.2.13 Conclusion**

The major objective set forth by GoTN to bring ISM into the mainstream was not fully achieved. Large scale shortages of physical and human infrastructure disrupted services delivery of ISM institutions. Delivery of services in ISM wings of PHC and ISM wings of the District hospitals were impacted due to constraints of space and shortage of working equipment. Lack of coordinated action between DSMOs, DIMH and the Medical Recruitment Board resulted in non-filling up of vacancies. Non-synchronising construction of buildings, procurement of equipment and posting of staff had rendered investments on several projects idle. There was chronic shortage of medicines in ISM institutions due to TAMPCOL's failure to link medicine production and procurement with the medicine indents. DIMH failed to address the issue of substandard ISM drugs due to delays in drug test results. ISM colleges did not meet several of the mandatory minimum standards stipulated by standard setting bodies. Post graduate courses were not started in three of the medical colleges due to lack of planning and concerted efforts. Delays in procurements resulted in huge sums lying in the bank accounts of DIMH, TAMPCOL and State AYUSH Society. In the absence of systematic accounting of project funds routed through bank account, the financial management system was exposed to the risk of fraudulent transactions. Research and Development did not receive due importance and casual handling of centuries old palm leaf manuscripts on Siddha medicine is potentially harming the objective of mainstreaming ancient knowledge on Siddha.

#### **2.2.14 Recommendations**

- Accounting for funds routed through bank account needs to be streamlined to ensure proper utilisation.
- DIMH may prepare and regularly update a computerised database of physical and human infrastructure in order to facilitate proper planning and resource utilisation.
- A proper mechanism may be put in place to link the indent raised by ISM institutions with the budget release by DIMH and production planning by TAMPCOL.
- Government may concentrate on starting post graduate courses in Ayurveda, Homoeopathy and Unani.
- Implementation of programmes under National AYUSH Mission needs acceleration, by providing for the necessary human and physical infrastructure.

## **MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT**

### **2.3 Performance Audit on Computerisation of functions in Urban Local Bodies**

#### *Executive Summary*

*GoTN launched the Urban Tree Information System as an e-Governance tool to improve service delivery by Urban Local Bodies. The system envisaged timely, cost-effective and transparent service delivery with ease of access and seamless flow of information across all levels. The Performance Audit on Computerisation of functions in Urban Local Bodies covering the period 2013-18 revealed improvements in the system in terms of availability of a centralised database for ease of transactions and facilitation of online tracking of service requests, etc. Deficiencies were noticed in planning, implementation of modules and monitoring.*

- *Urban Tree Information System adopted Closed Source Software in place of Open Source Software resulting in avoidable recurring liability of ₹ 1.73 crore per annum.*
- *Licences procured for Disaster Recovery software at a cost of ₹ 2.62 crore expired without utilisation.*
- *The Citizen Web Portal provided limited services defeating the objective of 'Anywhere Anytime' services to the public.*
- *The Grievance Redressal system module did not provide for toll free complaints.*
- *The project scheduled for completion in two phases by August 2015 was under progress (December 2018).*
- *Implementation of the project under various modules had deficiencies such as inaccuracies in data migration, non-correlation of mandatory fields in tables across various modules, incorrect capture of data, incorrect cancellation of assessments, missing demands and leakage of revenue.*

#### **2.3.1 Introduction**

The Urban Local Bodies (ULBs) in Tamil Nadu are categorised into City Municipal Corporations, Municipalities and Town Panchayats. ULBs computerised their services since 2002 and had developed application modules for birth and death, property tax, water charges, profession tax, building plan, pay roll, etc. With a view to expand information and communication technology based urban services to the citizens, the GoTN sanctioned (December 2009) ₹ 14.21 crore for e-Governance enhancement in ULBs in the State through common service delivery outlets. A System Integrator was contracted (February 2014) to design, develop, implement and maintain Centralised e-Governance Applications viz., Urban Tree Information

System (UTIS) for ULBs<sup>41</sup> in the State at a cost of ₹ 18.32 crore, anticipating GoI funds. The period of completion was 18 months including maintenance. The contract also provided for end-user training, data migration and creating infrastructure for Data Centre/Disaster Recovery.

GoTN accorded (August 2014) administrative sanction for UTIS under Jawaharlal Nehru National Urban Renewal Mission with the objective to move towards betterment of service delivery to stakeholders in time, cost and accessibility, increasing the transparency of processes, increasing employee productivity, ensuring seamless flow of information across all level of offices of the ULBs. As funds were not received from GoI, GoTN approached (September 2014) World Bank (WB) which approved (May 2015) UTIS under the WB assisted Tamil Nadu Sustainable Urban Development Project (TNSUDP).

UTIS was developed as web-based workflow application software using MS Windows 2012 Enterprise Edition as Operating System, Microsoft SQL Server 2014 Enterprise Edition as Database and Microsoft Visual Studio 2013 as Development tool. It consisted of 29 modules and was implemented in two phases viz., Phase I containing 12 modules<sup>42</sup> and Phase II containing 17 modules<sup>43</sup>. Phase I modules were completed and became operational in a phased manner from September 2015 to August 2017 in all the 134 ULBs, except Coimbatore City Municipal Corporation. Phase II modules were in progress (December 2018).

### 2.3.2 Organisational set up

The Principal Secretary, Municipal Administration and Water Supply (MAWS) Department is the head of the Department at the Government level. The Commissioner of Municipal Administration (CMA) exercises administrative control over all Municipal Corporations (except Greater Chennai Corporation) and the Municipalities. CMA is assisted by seven<sup>44</sup> Regional Directors of Municipal Administration (RDMA) with their jurisdiction over the municipalities in one or more districts. Each municipality is headed by a Commissioner. The Information Technology Wing of the CMA office is headed by one System Analyst and two Assistant Programmers and that of municipalities are managed by Assistant Programmers and Data Entry Operators.

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<sup>41</sup> Eleven City Municipal Corporations (except Greater Chennai Corporation) and 124 Municipalities.

<sup>42</sup> Birth and Death Registration, Citizen Facilitation Centre, Citizen Portal, Financial Accounting, Grievance Redressal, Non-Tax Items, Profession Tax, Property Tax, System Administrator, Trade Licence, Underground Drainage and Water Supply.

<sup>43</sup> Agenda, Assembly Questions and Answers, Asset Booking, Asset Management, Audit, Building Permission, Employee self-service, e-Office, Hospital Management, Integrated Personnel Management System, Legal, Procurement, School Management, Solid Waste Management, Stores and Inventory, Vehicle Management and Ward Works.

<sup>44</sup> Chengalpattu, Madurai, Salem, Thanjavur, Tirunelveli, Tiruppur and Vellore.

### **2.3.3 Audit objectives**

The audit objectives were to assess whether:

- objectives of the integrated e-Solution for ULBs viz., to make all ULB's services accessible to the citizen from anywhere, anytime through service delivery outlets ensuring efficiency, transparency and reliability of such services were achieved;
- data migration, customisation and business rule mapping were carried out appropriately; and
- procurement of hardware and software were need-based and uninterrupted services to citizen exist.

### **2.3.4 Audit criteria**

The audit findings were bench-marked against the following:

- The Tamil Nadu District Municipalities Act, 1920;
- The Municipal Manual of Government of Tamil Nadu, Volumes I & II;
- The Municipal Accounting Manual;
- The Town Panchayats, Municipalities and Municipal Corporations (Collection of Tax on Professions, Trades, Callings and Employments) Rules, 1999;
- The Municipal Solid Wastes (Management and Handling) Rules, 2000;
- The E-Security Policy of Government of Tamil Nadu, 2010;
- The National Policy on Information Technology, 2012;
- Guidelines/circulars/instructions issued by CMA/RDMAs;
- Gazette Notifications/Council Resolutions of the respective municipalities; and
- System Requirement Specification (SRS) and Operating Manuals.

### **2.3.5 Scope and methodology of audit**

The Performance Audit was conducted between March and July 2018 covering the period 2013-18. The methodology included examination of records at CMA and the selected municipalities to study the modules of Phase I and analysis of UTIS database (upto March 2018) furnished by the Department using SQL queries and data analysis software (IDEA)<sup>45</sup>. Samples were selected from all the 124 municipalities in order to collect audit evidence for the audit observations emanating from data analysis. Twenty five *per cent*,

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<sup>45</sup> Interactive Data Extraction and Analysis, an auditing application.

being eight<sup>46</sup> out of the thirty one districts (excluding Chennai), covering two districts from each of the four zones were selected by random sampling method using IDEA software. Scrutiny of manual records was limited to 16 municipalities<sup>47</sup>, being 33 *per cent* of the total of 42 municipalities in the selected districts. Analysis of the UTIS database was carried out for all the 124 municipalities. An Entry Conference was held on 17 May 2018, with the Principal Secretary to Government, MAWS Department, wherein the audit objectives, scope and methodology were discussed. An Exit Conference was held on 26 October 2018 with the Principal Secretary to discuss audit findings and recommendations. The Principal Secretary accepted all the observations and directed CMA to take remedial action on the deficiencies pointed out by Audit.

### Acknowledgement

Audit acknowledge the cooperation extended by the officers and staff of CMA and ULBs in conducting the audit.

### Audit findings

#### 2.3.6 Outcome of the Project

The vision of e-Governance enhancement in ULBs through Centralised e-Governance Applications was betterment of citizen service delivery. The implementation of UTIS (i) enabled integration of separate database of municipalities into a centralised single database, (ii) eased the process of getting information and payment of tax/non-tax for the people living in these urban agglomerations and (iii) enabled tracking the status of service requests. Audit analysis revealed that despite provision of facilities in the UTIS for seamless flow of information across all level of offices of the ULBs, these facilities were not utilised resulting in delay in delivery of municipal services to the citizens. Further, only two *per cent* of profession tax and less than one *per cent* of trade licence fees were realised through online despite instructions for collection only through online mode. This indicated lack of wide publicity for implementation of ‘anywhere anytime’ payment.

Deficiencies noticed in planning, implementation of modules and monitoring the service delivery at various levels of hierarchy are discussed below.

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<sup>46</sup> Erode, Kancheepuram, Madurai, Thanjavur, The Nilgiris, Thiruvarur, Sivagangai and Vellore.

<sup>47</sup> Anakaputhur, Arakkonam, Arcot, Bhavani, Coonoor, Gobichettipalayam, Karaikudi, Kumbakonam, Mannargudi, Pallavapuram, Pammal, Thirumangalam, Tirupathur, Thiruvarur, Udhamandalam and Walajapet.

### **2.3.7 Planning**

#### **2.3.7.1 Adoption of Closed Source Software (Proprietary Software) instead of Open Source Software**

Closed Source Software (CSS) is proprietary software under a licensing agreement to authorised users. It is platform dependent and involves recurring expenditure on renewal of licence. Open Source Software (OSS) is royalty free and prevent vendor lock-in, unnecessary cost on user licences and recurring liabilities.

National Informatics Centre (NIC) which provides e-Governance support to the State Government had advised (November 2010) CMA to adopt royalty free OSS for developing Centralised Web-Based Application Software. Further the National Policy on Information Technology, 2012 (Policy) envisaged adoption of Open Standards and promote open source and open technologies.

The Request for Proposal (RFP) (October 2013) for acquiring the software required the vendor to follow all e-Governance standards for Application Software and Data as per the guidelines published by GoTN and GoI from time to time. In contravention, CMA (a) implemented UTIS using CSS<sup>48</sup> incurring an expenditure of ₹ 2.96 crore towards procurement (April 2014) of licence valid for two years and (b) is using the CSS without renewing the licence since April 2016. Adoption of CSS in place of OSS was contrary to the RFP and the Policy. This resulted in an avoidable expenditure of ₹ 2.96 crore. Further, maintaining the critical system without renewal of licence attracts legal issues risking business continuity. The System Integrator has requested (July 2018) for renewal of licence from April 2018 at ₹ 1.73 crore per annum, which is an avoidable recurring liability to CMA.

CMA replied (December 2018) that a detailed study would be made to migrate from CSS to OSS after both phases of the Project are complete. Selection of CSS despite clear guidelines to select OSS from NIC and in the Policy resulted in recurring liability on renewal of licences.

#### **2.3.7.2 Disaster Recovery**

As per 'e-Security Policy 2010' of GoTN, Contingency Planning (Plan) is used to prevent interruptions to critical government processes from natural or man-made disasters and to restore normal operations within a determined period of time. The Plan includes definition of critical information, threats, controls, system environment, roles and responsibilities, establishment of critical information back-up services and determination of preventive, maintenance and corrective recovery strategies. In the case of any eventuality, the business continuity policy and Disaster Recovery plan should be effective to ensure that the services are resumed without interruption.

Audit scrutiny disclosed that there was no formulated plan for Disaster Recovery other than taking periodical back-up of the data held in the State Data Centre and storing them in server systems. This was due to

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<sup>48</sup> MS SQL 2014-Relational Database Management System.



non-identification of the Disaster Recovery site. Accordingly, the servers, database, software and infrastructure for Disaster Recovery activity procured (April 2014) at a total cost of ₹ 5.42 crore remained unutilised for more than four years. The licence procured for Disaster Recovery activity at a cost of ₹ 2.62 crore expired in April 2016 without utilisation resulting in unfruitful expenditure.

CMA replied (December 2018) that all the hardware would be installed in the proposed Disaster Recovery site at Trichy. The site was however required to be identified before procurement of hardware as the business continuity of the UTIS depends on the Disaster Recovery plan in the event of any eventuality. The non-installation of the hardware resulted in non-adherence to the e-Security Policy.

### **2.3.7.3 Non-linkage of Profession Tax module and Trade Licence module**

Profession tax is an important source of revenue (12 *per cent*) to the ULBs. The Tamil Nadu District Municipalities Act, 1920, requires organisations to register their profession with the ULBs concerned. In the absence of registration of an organisation/individual, profession tax demand cannot be generated by the system. By integrating profession tax and trade licence modules, remittance of profession tax by all trade licence holders can be ensured.

In seven out of the 16 test-checked municipalities, traders issued with trade licences did not pay profession tax. Thus, revenue of ₹ 28.34 lakh remained unrealised at the minimum of the slab rates as worked out by Audit (**Appendix 2.14**).

CMA stated (December 2018) that the integration would be completed by March 2019.

### **2.3.7.4 Delay in completion of project**

As per the terms of agreement (February 2014), the implementation of UTIS was scheduled to be completed by August 2015. The System Integrator sought extensions, attributing reasons like non-availability of space in the State Data Centre, Assembly Elections 2016, non-availability of training centre, Vardah cyclone, etc. Accordingly, the project period was extended (July 2018) upto July 2019 including warranty period of one year. After the scheduled date of completion of the project, the System Integrator claimed ₹ 57.94 lakh towards differential rate of Service Tax on account of upward revision of rates from 12.36 *per cent* to 14.50 *per cent* from June/November 2015 and introduction of Goods and Services Tax (GST) in July 2017. A sum of ₹ 14.95 lakh was paid as of September 2018 and the balance of ₹ 42.99 lakh was due for payment.

CMA attributed (December 2018) the delay to diversion of staff for Parliament/Local Bodies elections, delay in allotment of space for installing servers at Tamil Nadu State Data Centre and the floods in December 2015. The reply was not acceptable, as location for installing the servers should have been identified at the time of awarding the contract and events like floods in December 2015, Vardah cyclone, elections etc., occurred after the scheduled

date of completion of the project. Further, diversion of staff was a one time matter and here, the delay was over three years.

#### **2.3.7.5 Non-provision of ‘anywhere anytime services’ in the Citizen Web Portal**

UTIS aimed at providing prompt services to the citizens with least departmental interaction, developing interface with other departments, simplifying departmental procedures and providing anywhere anytime services to the public. To attain the goal, the Citizen Web Portal (CWP) was created in UTIS to entertain public requests including grievances. The CWP acted as a platform to render general services like tax payments, tax calculator, taking print-outs of birth/death certificates, etc.

Audit noticed that the CWP provided only the general services. The core services like assessment of property tax for new properties, name transfer of properties, filing application for new water connections, trade licences, etc., by uploading the mandatory documents were not envisaged in the CWP module of UTIS and hence not provided to the citizens. As the CWP provided limited services, the citizens had to visit the municipality to avail the services. Thus, the objective of ‘anywhere anytime services’ remained unachieved.

CMA stated (December 2018) that ‘Ease of Doing Business’ is incorporated in CWP and hence anywhere anytime service was established. Scrutiny (January 2019) of the CWP, however, revealed that it continued to provide only general services.

#### **2.3.7.6 Absence of user-friendly interface in Grievance Redressal System**

UTIS introduced Grievance Redressal System (GRS) to assist citizens to register their grievances through CWP and Citizen Facilitation Centres (CFC). The grievance handlers of the ULBs were required to take action on the complaint within the specified duration as defined by the CMA in the Citizens’ Charter. GRS helps the citizens to register grievances, track the status of the grievances and communicates the action taken on the grievances through electronic medium.

UTIS was implemented on a pilot basis in Pallavapuram Municipality where it went ‘go-live’ in September 2015. The Municipality had an existing Toll Free Complaints Cell (Cell), in software developed by a third party, to register public grievances received over the telephone. For the period from September 2015 to March 2018, a total number of 27,152 complaints were registered in the Cell against 97 complaints registered in the GRS of UTIS. The grievances received through the Cell and the GRS module were segregated department-wise each day and print outs handed over to the respective wings of the ULBs to take action. The action taken on the complaints was communicated to the Cell for capturing the details in the System. Long pending complaints are forwarded to the respective departments for redressal at periodical intervals. The SRS for GRS module did not include the facility of Toll Free registration of complaints, denying the citizen a user-friendly interface to register their grievances. Had UTIS included the Toll Free facility in the GRS module, the

Municipality could have avoided the recurring expenditure of ₹ 15 lakh per annum for maintenance of the Cell.

CMA replied (December 2018) that compliant redressal would be implemented through email, messaging services and Toll Free facility in addition to CWP.

#### **2.3.7.7 Provision for levy of interest on belated payment not available**

Section 124 of the Tamil Nadu District Municipalities Act, 1920, empowers municipalities to levy tax on professions, trades, calling and employment on a half yearly basis and to levy interest not exceeding one *per cent* per month on the amount of profession tax remaining unpaid after the dates specified for payment, for the entire period of default. The provision for automated computation and levy of interest for delayed payment of profession tax was not incorporated as business rule in the UTIS application software.

Audit noticed that 22 organisations in nine<sup>49</sup> of the sixteen test-checked municipalities were remitting profession tax with a delay ranging from two to six months. Even though this attracted interest, the same was not levied and interest foregone by the municipalities in the State calculated at one *per cent* of profession tax arrears of ₹ 8.45 crore for the year 2016-17 worked out to ₹ 8.45 lakh.

CMA stated (December 2018) that the provision for levy of interest would be incorporated in the system.

#### **2.3.7.8 Non-capture of agreement details in UTIS**

Non-Tax revenue is the revenue earned by lease/rent of properties owned by the ULBs. The Non-Tax revenue module captures details like name of the lessee, amount due, collected and balance, period of lease, etc. The module did not capture the date and penal conditions of agreement. Paragraph 4.100 of the Municipal Manual of Government of Tamil Nadu Volume II read with orders of the Government (January 1994) stipulated the ULBs to execute a bond/agreement with the lessees immediately after the lease of properties was confirmed and provided for levy of penal interest at 18 *per cent* per annum on belated payment of lease rent.

Scrutiny of 1,074 cases out of 6,857 lease files in the 16 test-checked municipalities revealed that agreement/bond was not executed in 900 cases, not authorised by both the parties in 136 cases, blank non-judicial stamp paper signed by the lessee in 17 cases and lease agreement written on non-judicial stamp paper without authorisation in one case. Inclusion of the mandatory fields to capture the agreement details and configuration of penal provision as per agreement in the UTIS would generate automated levy of penal interest for belated payments and prevent leasing of properties without execution of agreements and omissions in the agreements.

CMA replied (December 2018) that facility to capture the agreement details would be incorporated from April 2019.

<sup>49</sup> Coonoor, Gobichettipalayam, Kumbakonam, Pallavapuram, Pammal, Thirumangalam, Tirupathur, Udthagamandalam and Walajapet.

## **2.3.8 Implementation**

### **2.3.8.1 General**

Phase I modules of UTIS became operational in all the municipalities in a phased manner between September 2015 and July 2017. Discrepancies and deficiencies noticed in the implementation of the application software and data are discussed in the succeeding paragraphs.

#### **(i) Availability of limited services in Citizen Facilitation Centres**

The ULBs established CFC with multiple counters to act as an interface between the citizens and the administration of ULBs. It was envisaged as a channel to receive all types of requests from the citizens to avail municipal services. Forty nine<sup>50</sup> counters were established in the 16 test-checked municipalities, of which 38 were located within the municipal office campus and 11 outside the campus.

All the services were provided in 19 counters and the remaining 30 counters<sup>51</sup> functioned only as collection centres for receiving payments relating to property tax, water charges, underground drainage charges, etc. While the same software for provision of all services was available in all the counters, 30 counters provided only limited services. This was contrary to the objective of the UTIS system.

CMA replied (December 2018) that observations of audit would be considered for implementation in due course.

#### **(ii) Non-digitisation of documents**

The SRS requires CFC module to display checklist of documents to be scanned and uploaded in the system. The scanned documents are digitised for storage in the central repository and to enable verification at any time in the future.

The mandatory documents were neither scanned nor uploaded in the system even though scanners and the requisite software were provided to ULBs. Further, a random check of 272 applications in the test-checked municipalities during the year 2017-18 revealed that mandatory information was not filled up viz., floor-wise area (134 applications), building usage (119 applications), nature of the building (131 applications), year of construction of the building (235 applications). Further, relevant documents as per checklist viz., receipt for payment of tax dues (147 applications) and sale deeds (122 applications) were not attached. Besides, the signature of applicants was missing in 21 applications. Failure to incorporate input controls allowed receipt of

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<sup>50</sup> Anakaputhur (2), Arakkonam (2), Arcot (2), Bhavani (3), Coonoor (2), Gobichettipalayam (3), Karaikudi (4), Kumbakonam (6), Mannargudi (3), Pallavapuram (7), Pammal (2), Thirumangalam (2), Thiruvarur (3), Tirupathur (2), Udthagamandalam (4) and Walajapet (2).

<sup>51</sup> Anakaputhur (1), Arakkonam (1), Arcot (1), Bhavani (2), Coonoor (1), Gobichettipalayam (2), Karaikudi (3), Kumbakonam (4), Mannargudi (2), Pallavapuram (4), Pammal (1), Thirumangalam (1), Thiruvarur (2), Tirupathur (1), Udthagamandalam (3) and Walajapet (1).

applications without uploading the scanned documents. This defeated the objectives of streamlining the procedures, verifying the correctness of data in the workflow database and digitisation of mandatory documents for future reference.

CMA replied (December 2018) that instructions have been issued to the ULBs to scan and upload the documents.

**(iii) Non-utilisation of Grievance Redressal Module**

In four<sup>52</sup> of sixteen test-checked municipalities, records relating to complaints received from citizens on various services were not available in the database of UTIS which indicated that complaints were not registered through GRS module. In the remaining 11 test-checked municipalities (except Pallavapuram Municipality) only a meagre number of two complaints were registered per month on an average in GRS module against 360 complaints registered manually for the period from January 2018 to March 2018. Consequently, the complaints on non-functioning of streetlights, garbage clearance, drainage overflow, dog menace, etc., were continued to be recorded in the manual registers in four municipalities (Arcot, Mannargudi, Thiruvarur and Walajapet). Scrutiny of 360 manual complaints revealed lacunae such as receipt of complaints not acknowledged, details of action taken not recorded, complaints received over the telephone not recorded, etc.

The Municipalities replied (August 2018) that action would be taken to give publicity in prominent places including Citizen Facilitation Centres and the module in UTIS will be implemented.

**(iv) Data migration process**

The Agreement required the System Integrator to define and implement a proper data migration methodology. A mapping was to be carried out between the legacy database and the newly developed database to ensure data migration without data loss or data model mismatch after obtaining approval from ULBs. In test-checked municipalities, the accuracy of data migration performed by System Integrator was not certified by the ULBs as specified in the Agreement. The deficiencies noticed are explained below:

**(a) Birth and Death Registration**

In the test-checked municipalities, the information on birth and death available in the legacy database was not migrated in full. Out of 22,02,797 data on birth registrations migrated, information were missing on literacy of father (79 per cent) and mother (76 per cent) and their occupation (90 per cent and 46 per cent respectively). Though the legacy database captured the reasons for death like 'Senility', 'Old Age', 'Heart Disease and Heart Attacks', etc., in distinct codes, the workflow database captured the information under a single code without classification. Hence, 96 per cent (out of 3,98,264) of death registration did not have proper classification in the workflow database which was available in the legacy system. Further, 735 data on birth registration and

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<sup>52</sup> Arakkonam, Coonoor, Karaikudi and Walajapet.

3,437 data on death registration were missing in the migrated data in seven<sup>53</sup> municipalities.

CMA replied (December 2018) that migration of missing data from legacy database to UTIS would be gradually taken up and completed.

**(b) Property Tax System**

The Property Tax (PT) assessment master table contains details of assessments including the Annual Value<sup>54</sup> (AV) and PT levied on assessees. The amount of AV and PT available in the legacy data differed in the migrated data in the test-checked municipalities in 25,065 records of AV and 3,366 records of PT without audit trail for the modifications carried out.

The municipalities replied (August 2018) that the issue will be addressed to the System Integrator.

**(c) Building usage**

The coding for building usage was available in the legacy database as ‘A’, ‘B’, ‘C’ and ‘D’ for residential, rental, commercial and industrial respectively. In the workflow database, the building usage was codified as ‘1’, ‘2’ and ‘3’, for residential, industrial and commercial respectively. The legacy data with 13,597 records under commercial and industrial codes were migrated under residential code in the workflow database by 11 out of the 16 test-checked municipalities<sup>55</sup>. Similarly, 2,933 records of legacy data under residential code were migrated under commercial code in the workflow database by nine<sup>56</sup> municipalities.

The municipalities replied (August 2018) that during the previous revision (April 2008), the usage flag was not updated properly in the legacy database due to combined usage of building and that the list would be forwarded to System Integrator for updation. Further, CMA stated (December 2018) that this work would be gradually taken up and completed soon.

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<sup>53</sup> Arcot (22 records of birth), Bhavani (1,742 records of death), Gobichettipalayam (7 records of death), Kumbakonam (509 records of birth), Pallavapuram (120 records of birth and 29 records of death), Udhamandalam (1,659 records of death) and Walajapet (84 records of birth).

<sup>54</sup> As per Section 82(2) of the Tamil Nadu District Municipalities Act, 1920, the Annual Value of the lands and buildings shall be deemed to be the gross annual rent at which they may be reasonably expected to let from month to month.

<sup>55</sup> Anakaputhur (21), Arcot (1,281), Bhavani (335), Coonoor (185), Gobichettipalayam (808), Karaikudi (2,409), Kumbakonam (3,530), Mannargudi (6), Pallavapuram (1,512), Thirumangalam (2,151) and Udhamandalam (1,359).

<sup>56</sup> Arcot (11), Bhavani (701), Coonoor (176), Gobichettipalayam (327), Karaikudi (1,612), Kumbakonam (37), Mannargudi (7), Pallavapuram (52) and Udhamandalam (10).

**(v) Non-correlation of Property Tax and water charge modules**

The PT assessment number is mandatory to avail services like new water connection and name transfer of Water Supply (WS) connections. The linkage between the PT Assessment Table and Water Connection Table is provided through 'Assessment ID' in the UTIS.

Though the Assessment IDs were linked, the usage of the property (residential/commercial) was not correlated in 7,276 WS connections i.e., 4,796 WS commercial connections were classified under residential category in 61 municipalities and 2,480 WS residential connections under commercial category in 44 municipalities. This indicated lack of input control in the application software resulting in mismatch of usage and variation in the anticipated revenue of the municipalities.

CMA stated (December 2018) that correlation would be completed during revision of Property Tax 2018.

**2.3.8.2 Property Tax**

Section 78 read with Section 81 of the Tamil Nadu District Municipalities Act, 1920 (Act) empowers municipalities to levy PT on buildings or lands occupied by or adjacent and appurtenant to buildings or both. The usage of buildings is broadly classified into residential, commercial and industrial for assessing PT. The computation of PT is based on the plinth area, usage, location, type of construction and age of the building. The PT comprises tax for general purpose, education tax and library cess. Deficiencies noticed in audit are discussed in the following sub paragraphs.

**(i) Incorrect capture of data**

The PT module contains the Assessment Table and the Assessment Floor Table to provide details of the property for levy of PT. The Assessment Table is the master table and captures details of the location, area of the plot, built area, type, age of the building, approved built area as per the plan, date of completion of construction of building, date of assessment, date from which PT levied, etc., for each assessment. The Assessment Floor Table provides floor-wise details of built area and usage for each assessment.

**Building plan approval**

The municipalities and Director of Town and Country Planning are empowered to issue planning permission for residential buildings and commercial buildings based on the number of floors and built area. The building plan approval number, date and approved building area are mandatory fields to be entered by CFC operator on receipt of applications for new assessment of property.

Out of 27,14,510 assessments available in the Assessment Table of the municipalities in the State, 26,19,288 relates to PT and 95,222 relates to Vacant Land Tax (VLT). Out of the PT assessments, the details of building plan approval and extent of approved area were absent in 26,11,704 (99.71 per cent) assessments. Of this, 13,558 assessments had records relating to residential (10,412), commercial (3,107) and industrial (39) categories with

floors from second floor to twelfth floor. As the Building Permission module included in Phase II was not implemented, deviations and unapproved constructions remain un-detected which affect the payments relating to building plan permissions.

The test-checked municipalities replied (August 2018) that necessary notices were issued to the assesseees to furnish the building plan approval details and the corresponding data would be updated in the database on receipt. Lack of input controls and non-integration of Building Permission module with PT Assessment Table had resulted in incomplete capture of vital data.

### **Plot area and Built area**

Plot area is the extent of the land either vacant or occupied with a building. Built area is the built-up area of the building in the property. The information on plot area and built area are mandatory in the Assessment Table for computing the VLT and PT. The Assessment Floor Table captures the floor-wise details of built area.

(a) In 99,864 assessments, the plot area was not captured in the Assessment Table. Similarly, in the Assessment Floor Table, the built area was not captured in 1,37,557 records. The absence of the data despite availability of the mandatory fields in the workflow database indicated lack of data purification in the migrated data and input controls.

The test-checked municipalities replied (August 2018) that staff would be instructed to capture the mandatory fields. The lack of input controls facilitated mandatory fields to remain blank while allowing the process of PT assessments despite missing details.

(b) A comparison of Assessment Table and Assessment Floor Table revealed that 7,980 assessments having more than 10,000 sq.ft. of plot/built area did not exhibit half year tax commensurate to the area shown in the Assessment Table. Also, the Assessment Floor Table exhibited 4,707 assessments with built area more than 10,000 sq.ft. as active but were found to be deleted in Assessment Table due to non-integration of the Tables.

Further, the built area captured in the Assessment Table should tally with the sum of floor-wise built area captured in the Assessment Floor Table. Out of 26,19,288 PT assessments, in 3,39,058 assessments, built area in Assessment Table was not equal to the sum of floor-wise built area captured in the Assessment Floor Table as enhancements were not updated in the Assessment Table. This indicated deficiency in data structure, data inaccuracy, lack of data purification during migration and lack of processing controls.

The test-checked municipalities replied (August 2018) that the actual area will be updated in the system after verifying the list of cases through System Integrator.

(c) Based on Section 81 (3) (a) of the Act, CMA had instructed (July 1998) all municipalities to levy VLT for the excess vacant land appurtenant to buildings over and above three times of built area of the building. Audit observed that the 'plot area' field in Assessment Table



captures area of the plot in case of VLT assessments and built area in case of PT assessments.

The test-checked municipalities accepted (August 2018) that plot area for vacant site and floor-wise summarised built area for buildings were stored in the plot area column. Absence of separate fields for plot area and built area in the Assessment Table impeded calculation of VLT for the excess vacant land appurtenant to buildings along with PT for buildings.

**(ii) Generation of demand on cancelled assessments**

In the case of settlement or demolition of a property, the assessee applies for name transfer or cancellation of assessment after clearing the outstanding dues. Once approved, the system de-activates the assessment number. The details of cancelled assessments are listed in the Assessment Cancellation Register generated by the system. Out of 33,617 assessments cancelled, demands were raised and pending on 223 assessments for ₹ 0.72 lakh in 57 municipalities, after the dates of cancellation. The discrepancies arose due to lack of control in the software to integrate the Cancellation Table with the Demand, Collection and Balance (DCB) Table.

Out of the test-checked municipalities, Anakaputhur, Pallavapuram and Pammal municipalities replied (August 2018) that the discrepancy was due to validation issues which were identified and rectified. Arcot, Kumbakonam and Mannargudi municipalities stated that the issue would be taken up with System Integrator for rectification.

During the Exit Conference, the Principal Secretary, MAWS Department instructed (October 2018) CMA to block back-end operations which lack audit trail. To resolve the issue in all the municipalities, the Assessment, Demand and Cancellation Tables are to be integrated by suitably modifying the application software. This would check repeat occurrences.

**(iii) Cancellation of assessments with dues**

**(a) Vacant Land Tax**

The levy of VLT is cancelled from the date PT is assessed on the property and after settlement of outstanding dues. Demand for ₹ 46.98 crore was outstanding against 79,191 VLT assessments in all municipalities of the State. Of this, demands for ₹ 3.41 crore on 6,229 assessments were cancelled without settlement of dues as of March 2018.

**(b) Property Tax**

Section 89 (2) of the Tamil Nadu District Municipalities Act, 1920 stipulates settlement of PT dues before cancellation of assessment on account of demolition or destruction of the building. Out of ₹ 338.20 crore due from 7,94,243 assessments, 9,633 assessments were cancelled without settling the dues of ₹ 3.67 crore as of March 2018.

**(c) Solid Waste Management User Charges**

The Municipal Solid Wastes (Management and Handling) Rules, 2000 necessitate the owners/occupiers of the households, shops, hotels, restaurants,

office building and shopping complexes to pay Solid Waste Management User Charges (SUC) at rates notified by the municipalities. The SUC forms part of PT and the demand for SUC is made as an addition in the demand notice of PT. Out of ₹ 17.03 crore demanded during 2017-18 from 9,10,830 assessments, 3,668 assessments were cancelled without settling the dues of ₹ 0.53 crore.

The test-checked municipalities replied (August 2018) that the cancelled demands were restored after validating the date and that provision was made to collect the arrears. The details of restoration of cancelled demands and collection of arrears as called for by Audit were not furnished. The application software allowed cancellation of demands without settlement of dues, which indicated lack of input controls and processing controls.

**(iv) Deletion of Assessments**

Assessment Cancellation Module has been designed in the front-end for cancellation of the assessments in the computerised workflow system with provision to capture remarks and reasons. This enables the municipalities to cancel assessments with audit trail. System Integrator, however, deleted 33,501 assessments relating to the test-checked municipalities at the back-end without audit trail as demands were not generated for these assessments in the legacy database. Though the municipalities requested for revival of 4,035 assessments which were alive, the System Integrator is yet (August 2018) to restore the live assessments. Deletion at the back-end in the Assessment Table without correlating the Assessment Cancellation Table resulted in lack of audit trail.

The test-checked municipalities replied (August 2018) that the issue was communicated to the System Integrator for rectification. Allowing deletion without using Assessment Cancellation Module indicated lack of transparency, processing controls and effective monitoring and would result in non-generation of demands for active assessments.

**(v) Payments received under different heads of account**

The DCB Table captures demand for VLT and PT under ValueID-1 and ValueID-2 respectively. The Payment Table captures the amount collected against the demand, under the same ValueID to avoid misclassification. Based on the nature of receipt, the PT/VLT receipts under various categories are accounted under various heads viz., (i) PT/VLT, (ii) Arrears, (iii) Current demand and (iv) Remission and Refund. The DCB Table revealed that VLT of ₹ 3.62 crore received from 5,549 assesseees for the period October 1998 to March 2018 was credited under PT in the Payment Table and PT of ₹ 14.15 lakh received from 679 assesseees for the period April 2010 to March 2018 was credited under VLT, erroneously. The workflow database permitted the misclassification resulting in non-reconciliation of accounts. This indicated lapses in the application software.

The test-checked municipalities replied (August 2018) that ValueID was corrected in the DCB Table and the Payment Table based on the

Assessment Table. The reply was not tenable as action needs to be taken to bring controls in the software to avoid such errors in future.

**(vi) Demand for Solid Waste Management User Charges**

The rates of SUC were notified by the municipalities during the period from April 2017 to August 2017. The SUC form part of PT and the demand for SUC is made as an addition in the demand notice of PT. During 2017-18 (second half year), SUC of ₹ 8.30 crore was not demanded on 3,11,783 assessments by the municipalities in the State i.e., 43,835 residential assessments and 2,67,948 non-residential assessments at a minimum of ₹ 10 and ₹ 50 per month respectively.

Further, there was a short demand of ₹ 97.98 lakh on 1,32,331 residential assessments from which SUC was demanded during the year 2017-18 by the test-checked municipalities as demand for SUC, required to be levied from the effective dates of the year 2017-18 (effective date is different in each municipality), were raised belatedly or adopting lower slab rates. In the absence of provision in the system to capture different types of commercial/industrial categories of waste generators, the amount of SUC due was not automated but manually entered. This deficiency in the application software indicated lack of transparency in entering the rate for each category and resulted in variation in the expected revenues of the municipalities.

CMA stated (December 2018) that generation of SUC demand would be automated from April 2019 based on the ULB's bye-law.

**(vii) Non-generation of demand**

The system failed to calculate VLT/PT and generate demand for 8,017 assessments though the flags 'isdeleted' and 'isactive' in PT Assessment Table indicated that the assessments were valid records. Non-raising of demands were due to lack of processing controls in the application software.

The test-checked municipalities replied (August 2018) that these were migrated records, which were written-off and hence PT and Annual Value were captured as zero; these valid records would be made inactive in the UTIS database.

The reply was not acceptable as write-offs do not render the assessments inactive and accordingly demands should be generated periodically. The reply indicated that changes were made in the database through back-end, which could lead to inconsistency in data and lack of audit trail.

**(viii) Assessments written off**

Long pending dues on assessments are written off based on Council resolutions for a specific period and on completion of that period, demands are raised periodically. The State database exhibited 7,204 assessments as "written off" with remarks like council resolution number, write off, new assessment raised, cancellation, demand deletion, etc.

Pammal Municipality had written off 139 assessments with remarks such as 'demolition' and 'double entry cancelled'. The Municipality

replied (June 2018 and August 2018) that the provision for assessment cancellation was disabled from February 2018 and hence these cases were written off instead of cancellation in the system. Similarly, Gobichettipalayam Municipality had written off five assessments with remarks such as 'cancelled in monthly list', 'wrong demand generated'. It was replied (August 2018) that these demands were required to be cancelled in place of write off.

Cancellation and write off are different procedures and including cancelled assessments in the write off table reflects incorrect status in the database.

During the Exit Conference, Principal Secretary, MAWS Department, instructed (October 2018) CMA to take necessary action on non-generation of demands for PT and write-off of PT assessments.

### **2.3.8.3 Profession Tax**

Chapter VI A of the Tamil Nadu District Municipalities Act, 1920 empowers the ULBs to levy tax on profession, trade, calling and employment of a citizen/organisation on half-yearly basis. Article 276 (2) of the Constitution of India specifies the maximum amount of profession tax payable by a person at ₹ 1,250 per half-year.

#### **(i) Missing Demands**

Paragraphs 4.13, 4.15, 4.30 and 4.31 of the Municipal Manual of Government of Tamil Nadu, Volume II require each municipality to enumerate and maintain a demand register each year incorporating list of citizens/organisations liable to pay profession tax. The names in the register shall be tallied with the list furnished by citizens/organisations to generate unique assessment number (one assessment number to an organisation including its members) to enable them to pay the profession tax as applicable, through the service delivery outlets like the CFC or CWP. Additions and alterations are incorporated through monthly reviews to update the register and to avoid missing demands. The SRS also provided for automatic generation of half yearly demand with a pre-requisite that citizen's details and profession tax information are available in the system.

Profession Tax demands for ₹ 31.77 crore on 76,131 assessments were missing in the workflow system of the municipalities in the State during the period 2015-18. Audit detected the omissions by comparing the list of demands generated in a year with that of the subsequent years after taking into account the cancelled demands. This indicated failure of the municipalities to update the details of citizens/organisations periodically in the system resulting in missing demands.

CMA replied (December 2018) that necessary instructions would be given to ULBs to generate the demands regularly and proper validation would be applied in UTIS to alert for missing demand.

**(ii) Non-remittance**

The employees of Postal Department and the Tamil Nadu State Marketing Corporation, a company owned by GoTN, were not assessed for profession tax in six<sup>57</sup> and five<sup>58</sup> of the test-checked municipalities respectively.

The test-checked municipalities replied (August 2018) that the matter would be taken up with the Chief Post Master and District Chief Manager of the Tamil Nadu State Marketing Corporation.

**(iii) Short remittance**

Rule 8 of the Town Panchayats, Municipalities and Municipal Corporations (Collection of Tax on Professions, Trades, Callings and Employments) Rules, 1999 (Rule) requires the Commissioners to verify 10 *per cent* of the total number of returns at random with relevant documents, under each slab rate fixed in the Act to ensure correctness of the amount remitted against profession tax. There was short remittance of ₹ 0.98 lakh in two of the test-checked municipalities for the period 2016-18 i.e. ₹ 0.92 lakh in Pammal Municipality in ten selected organisations and ₹ 0.06 lakh in Coonoor Municipality in six selected organisations. Even though the organisations remitted the amount of profession tax with details of employees, the municipalities did not conduct verification of the documents.

CMA replied (December 2018) that the defects pointed out are noted for future guidance and necessary instructions will be given to ULBs.

**(iv) Excess remittance**

The maximum amount of profession tax payable by a person was fixed at ₹ 1,250 per half year. In three test-checked municipalities<sup>59</sup>, the test-checked organisations remitted profession tax of employees in excess of the ceiling prescribed in Article 276 (2) of the Constitution. This indicated that verification of the documents was not carried out by the municipalities.

CMA replied (December 2018) that the maximum half year tax had since been restricted to ₹ 1,250 in UTIS from second half year of 2018-19.

**(v) Acceptance of returns without supporting documents**

Organisations remitting profession tax of its employees shall specify the gross salary of the previous half-year against the name of each employee in the returns submitted to the ULBs.

In four out of the test-checked municipalities (eight cases in Coonoor, 12 cases in Pallavapuram, five cases in Udthagamandalam and two cases in Pammal), the organisations submitted profession tax returns without details of gross income and supporting documents like income tax returns to enable the

<sup>57</sup> Gobichettipalayam, Karaikudi, Mannargudi, Thirumangalam, Thiruvarur and Udthagamandalam.

<sup>58</sup> Gobichettipalayam, Karaikudi, Mannargudi, Thirumangalam and Thiruvarur.

<sup>59</sup> Gobichettipalayam - ₹ 31,468 (476 employees in 8 organisations), Kumbakonam - ₹ 26,880 (384 employees in 10 organisations) and Pammal - ₹ 8,403 (74 employees in 5 organisations).

municipalities to verify the correctness of the payment. The acceptance of remittance without supporting documents indicated that the municipalities did not adhere to the provisions of the Rule.

CMA replied (December 2018) that necessary instructions were issued to all ULBs to verify the list of employees and their gross income for the previous six months received from the employer at the time of remittance.

**(vi) Discrepancies in Profession Tax Module**

The basic requirement of a computerised system is the completeness and reliability of database. In Karaikudi Municipality, the profession tax master data with the list of profession tax assessees contained 290 records without capturing name in the business name field and the first name field was captured as 'owner' without specifying the name of the assessee. In Thirumangalam Municipality, the profession tax Demand Table had 20 records without the Assessment Number.

The absence of relevant information resulted in non-identification of the assessees on whom the demand was generated leading to non-settlement of demands. This indicated failure of the data entry operators to ensure the capture of complete information submitted in the applications for registration and lack of monitoring.

CMA replied (December 2018) that respective ULBs were instructed to identify the genuineness of the records and instructed all ULBs to self check such kind of issues.

**2.3.8.4 Water Supply and Under Ground Drainage Charges**

The ULBs invite applications from consumers for providing new WS/Under Ground Drainage (UGD) connections after fixing the amount of initial deposit and user charges in the Bye-laws notified in the District Gazette. The Bye-laws empower the municipalities to disconnect the WS connections in the event of failure on the part of the consumers to make payment of user charges within the time prescribed therein.

The database contained 11.25 lakh WS connections and 1.80 lakh UGD connections provided by the municipalities in the State as of March 2018. Of this, 0.51 lakh WS connections and 0.32 lakh UGD connections were processed after implementation of UTIS. Deficiencies noticed in the module are discussed in the succeeding sub-paragraphs.

**(i) Absence of data for generating demand for user charges**

The Operating Manual and SRS require capturing information on the date of installation of the WS/UGD connections for generating demand notice for user charges as a mandatory field. The demand for user charges on 2,166 WS connections and 5,993 UGD connections provided in the municipalities of the State through UTIS for the period from October 2015 to March 2018 were generated without capturing the date of installation in the mandatory field provided in the database. Of this, 709 WS connections were

in 10 test-checked municipalities<sup>60</sup> and 1,268 UGD connections were in four<sup>61</sup> test-checked municipalities. Despite the installation date field being mandatory, the System Integrator designed the field to accept 'null' values resulting in lack of input controls in the application software.

During the Exit Conference, CMA stated (October 2018) that action was being taken in consultation with System Integrator.

**(ii) Demands not generated**

The demand for user charges is generated on quarterly basis. In the database, the Table 'WUConnection' contains details of consumer-wise WS/UGD connections provided and the Table 'WSUDemand' generates the demand for user charges. The system generates the demand notice using field 'Slab ID' of the connection. The system did not generate demand for user charges on 339 WS connections in 35 municipalities for ₹ 1.13 lakh from the month of installation i.e., from August 2015 to March 2018. The flag 'IsActive' ensured that the connections were alive. The 'Slab ID' for the connections was not captured resulting in non-generation of demand notices. This indicated lack of input validation control in the application software.

CMA replied (December 2018) that defects have since been rectified in UTIS application and existing data have been corrected. Documentary evidence, however, in support of the reply was not furnished.

**(iii) Non-collection of revised rates of initial deposit for WS connection**

Pallavapuram Municipality revised the rates of WS connections effective from October 2017 i.e., initial deposit rates from ₹ 5,000 to ₹ 7,500 on residential and from ₹ 10,000 to ₹ 15,000 on commercial/industrial connections and monthly user charges from ₹ 50.50 to ₹ 285 on residential and from ₹ 151.50 to ₹ 855 on commercial/industrial connections. The Bye-law provided for collection of differential amount of initial deposit from the existing consumers in two instalments within a period of six months. The Municipality provided 21,273 WS connections including 21,081 residential and 192 commercial/industrial connections as of March 2018.

The Municipality did not collect the differential amount of initial deposit from the existing consumers, continued to collect the initial deposit from the new consumers and levy the user charges at the old rates. The differential amount of initial deposit pending collection was ₹ 5.37 crore. The differential amount of monthly user charges not levied was ₹ 2.89 crore for the period from October 2017 to March 2018. Failure to incorporate the revised rates in the application software as stipulated in the bye-laws resulted in non-collection of ₹ 5.37 crore and ₹ 2.89 crore towards differential amount of initial deposit and monthly user charges respectively.

<sup>60</sup> Anaputhur, Arcot, Karaikudi, Kumbakonam, Mannargudi, Pallavapuram, Pammal, Thirumangalam, Thiruvarur and Tirupathur.

<sup>61</sup> Kumbakonam, Pallavapuram, Thiruvarur and Udhagamandalam.

During the Exit Conference, Principal Secretary, MAWS Department instructed (October 2018) CMA to incorporate the revised rates in the UTIS.

**(iv) Non-integration of UGD and Property Tax modules**

The SRS stipulated integration of UGD application module with CFC, PT and Accounts modules. The citizens submit the application for UGD connections in the CFCs along with the mandatory documents. The system has to integrate the PT assessment number with the UGD connection request for automated calculation of the initial amount of UGD deposit payable by the citizens based on the details of area and usage of the property available in the PT Assessment Table. The non-integration of the UGD and PT modules resulted in discrepancies leading to manipulation through manual interventions as discussed in the following sub-paragraphs.

**(a) Pallavapuram and Kumbakonam municipalities**

The amount of initial deposit for providing UGD connections to residential and commercial categories were fixed at ₹ 0.10 lakh and ₹ 0.20 lakh respectively by Pallavapuram Municipality and at ₹ 0.05 lakh and ₹ 0.10 lakh respectively by Kumbakonam Municipality. The municipalities (i) collected ₹ 11.75 lakh in excess towards initial deposit for residential connections at commercial rates i.e., 103 connections in Pallavapuram and 29 in Kumbakonam and (ii) made a short collection of ₹ 1.45 lakh towards initial deposit for commercial connections at residential rates i.e., 10 connections in Pallavapuram and nine in Kumbakonam.

Pallavapuram Municipality replied (August 2018) that the consumers were intimated to remit the arrears and the Kumbakonam Municipality stated (August 2018) that the cases would be verified.

**(b) Thiruvarur Municipality**

Thiruvarur Municipality fixed the amount of initial deposit for UGD connection based on the area and usage of the property of the consumer.

Out of 4,431 UGD connections i.e., 4,235 residential and 196 commercial connections provided as of March 2018, PT 'AssessmentId' were not available for 3,168 connections which indicated non-integration of UGD and PT modules for automated computation of initial deposit and user charges. Further, there was an excess collection of ₹ 7.70 lakh and short collection of ₹ 4.31 lakh towards initial deposit for UGD connection for 259 and 150 connections respectively. Besides, there was an excess collection of ₹ 1.03 lakh and short collection of ₹ 1.55 lakh towards user charges for UGD connection for 258 and 1,069 connections respectively during the period 2016-18. The discrepancies arose as the slab rates were entered manually in the workflow system and the application software was not designed for automated capture of deposit amount and generation of demand amount based on area and usage of the property.

During the Exit Conference, the Principal Secretary, MAWS Department, instructed (October 2018) CMA to take into account the audit observation for integrating the modules.



### 2.3.8.5 Trade Licence

#### *Non-utilisation of automated penalty provision*

Section 249 read with Schedule V of the Tamil Nadu District Municipalities Act, 1920 covers the list of trades that could be carried out within municipal limits. The ULBs grant trade licence after collecting the licence fees as notified in the District Gazette. The licence is valid for one financial year and requires renewal after its expiry.

The municipalities process the trade licence applications after creation of master records in the 'list of trades' and 'trade licence fees'. UTIS in its trade licence module has the CFC at the front-end screen with three modes for the process viz., Application mode, Miscellaneous Receipts (MR) mode and Complaints mode. The Application mode allows generation of automated demand for penalty at 25 per cent of the applicable fees towards non-renewal of licences within the scheduled date. The MR mode seeks manual intervention to process applications.

The penalty for non-renewal of trade licence within the stipulated period is notified by each ULB in the District Gazette. Accordingly, the rate of penalty varies in each municipality. UTIS facilitated levy of penalty at 25 per cent in its workflow database by default, without provision for modification by individual municipalities.

Coonoor and Udthagamandalam Municipalities fixed the rate of penalty at 100 per cent and Gobichettipalayam Municipality at 50 per cent of the applicable fees. As the workflow database did not capture the rate as fixed by the municipalities, they depended on the MR mode through manual intervention, to collect the amount of penalty levied.

During the Exit Conference, Principal Secretary, MAWS Department agreed to stop data entry through MR mode and customise penalty collection.

### 2.3.8.6 Financial Accounting

#### *(i) Non-adherence to due dates for submission of Annual Accounts in the workflow database*

The Financial Accounting (FA) module for ULBs in UTIS was designed in accordance with the updated Municipal Accounting Manual and the application software proposed to integrate all the modules of Phases I and II as part of centralised e-Governance application. The objectives of FA module *inter alia* included improvement of financial management, accountability, transparency of management and governance, publishing of audited financial statements in time and better management of resources and risks.

Even though Phase I modules became operational in all the municipalities of the State in phases from September 2015 to July 2017, the preparation of Annual Accounts for the year 2017-18 was at different stages of progress (August 2018). The due date for submission of accounts to the Directorate of Local Fund Audit (DLFA) was three months from the close of the financial year. Out of the test-checked municipalities, five municipalities prepared the annual accounts in the UTIS application software and submitted to DLFA for

approval. In the remaining 11 municipalities<sup>62</sup>, the preparation of accounts was under progress indicating that the major objectives of implementing FA module were yet to be achieved.

CMA replied (December 2018) that instructions were issued to ULBs to complete the accounts and submit the report to DLFA in time.

**(ii) Delayed remittance of cheque/demand draft receipts**

The Municipal Manual of Government of Tamil Nadu, Volume II necessitates remittance of all money received into the municipal fund account as soon as they are received unless specified otherwise. During the year 2017-18, nine<sup>63</sup> out of the sixteen test-checked municipalities remitted 4,550 out of 12,363 cheque/Demand Draft receipts amounting to ₹ 6.33 crore into bank after a delay ranging from 8 to 90 days i.e., 8 to 15 days in 2,219 cases for ₹ 2.81 crore, 16 to 30 days in 1,235 cases for ₹ 1.76 crore and 30 to 90 days in 1,096 cases for ₹ 1.76 crore.

CMA replied (December 2018) that instructions would be issued to the collection staff to submit the cheque/DD on the same day, to avoid delay in remittance.

**(iii) Acceptance of unequal entries by the Financial Accounting module**

The municipalities adopt the accrual basis of accounting for which the FA module of UTIS provides a single or multiple debit entries against a credit entry and *vice versa* and ensures that the total amount of debit entries tallies with that of the corresponding credit entries. In 50 municipalities, 4,002 vouchers depicted a difference between the debit entries and the corresponding credit entries during the year 2017-18. The capture of unequal entries in the application software indicated lack of input controls.

CMA replied (December 2018) that the reason for this error would be identified and rectified.

**2.3.8.7 Role Management and privileges**

The Administrator module provides Role Based Access Controls (Controls) to offer User and Role management functionalities to officials in the workflow system, ensure right distribution of access grants and proper mapping of configuration settings. The Administrator assigns login credentials to the users with privileges depending upon their designation to carry out the functions in the workflow system. The Controls safeguard data, provide audit trail and avoid misuse of the system. In 11 municipalities<sup>64</sup>, service requests of citizens for payment of taxes and charges were captured by operators other

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<sup>62</sup> Arcot, Bhavani, Coonoor, Gobichettipalayam, Kumbakonam, Mannargudi, Tirumangalam, Thiruvarur, Tirupathur, Udhagamandalam and Walajapet.

<sup>63</sup> Arakkonam, Arcot, Bhavani, Coonoor, Gobichettipalayam, Thirumangalam, Tirupathur, Udhagamandalam and Walajapet.

<sup>64</sup> Anakaputhur (511 cases), Arcot (384 cases), Bhavani (599 cases), Coonoor (153 cases), Gobichettipalayam (25 cases), Mannargudi (363 cases), Pallavapuram (1,082 cases), Thirumangalam (61 cases), Thiruvarur (142 cases), Udhagamandalam (939 cases) and Walajapet (397 cases).

than the regular CFC operators, by sharing passwords to the operators on duty in their absence. This indicates that the security provisions in the Controls were not utilised by the municipalities.

CMA replied (December 2018) that instructions have been issued to ULBs not to permit sharing of user-id/password and to assign the role of CFC operator in advance when the regular staff is on leave.

#### **2.3.8.8 Password policy**

Password is an user identity to access an information system or service. 'e-Security Policy 2010' of GoTN stipulates implementation of password standards to ensure adherence to password management practices by authorised individuals accessing Government Department resources. Out of 5,110 active users of the municipalities in the State as of March 2018, 2,740 users did not change passwords after 180 days. The Administrators in the municipalities failed to invoke the provisions available in the application software whereby the users are mandatorily forced to change the password after the lapse of specific number of days set in the system.

At the instance of Audit, CMA replied (December 2018) that the software has been modified to change the password once in 60 days.

#### **2.3.9 Monitoring**

##### **2.3.9.1 Pendency and delay in delivery of municipal services**

All municipal services relating to birth and death registration, property tax, profession tax, water supply and underground drainage, non-tax revenue, trade licences, grievance redressal, etc., covered under Phase I of UTIS are provided to the citizens through the web-based workflow system. A service request ID, generated for a service, remains alive in the workflow until the service request is settled and removed from the CFC dashboard. The workflow ID is generated for each stage of process of the service request. The dashboard discloses the pending cases and tracks the status of the pending cases at each stage in the inbox of the individual CFC/service users. This enables officers at all levels of the municipality to view the number and duration of the pending cases to assess the performance of the officials under control. The Citizens Charter of the municipalities has fixed time frame of one to 45 days for providing municipal services i.e., 45 days for issue of trade licence, 30 days for PT assessment, 15 days for water supply connection, one to seven days for issue of birth and death certificates, etc., from the date of receipt of application.

##### **(i) Service Requests received from citizens pending in the workflow for a long duration**

As of January 2018, 91,63,399 service requests on birth certificates, assessment of PT, name change, etc., were received in the municipalities of the State out of which 2,87,742 were shown pending in the database to the end of March 2018. Of the pending requests, 41,557 service requests were received in the test-checked municipalities (**Appendix 2.15**).

**(ii) Undue delay in delivery of municipal services through Citizen Facilitation Centres**

ULBs established CFCs to provide efficient, transparent and reliable municipal services to the citizens such as to obtain and submit application forms, track status of services, issue of birth and death certificates, make payments of property tax, profession tax, water and drainage user charges, trade licences, register complaints on deficiencies in the municipal services, etc. Out of 17,109 applications for PT assessment of new properties received in the test-checked municipalities during the period 2015-18, 9,284 cases were assessed after a delay ranging from one to 785 days. Similarly, out of 4,789 applications received for providing residential WS connections, 2,854 applicants were provided connections after a delay ranging from one to 713 days (**Appendix 2.16**).

This indicated lack of monitoring through Management Information System (MIS) reports available in the dashboards at various levels of the hierarchy.

CMA replied (December 2018) that instructions were issued to ULBs to clear the pending service requests within the time limit fixed. CMA further stated that the existing dashboard was improved to monitor the progress of service delivery by senior officials.

**2.3.9.2 Absence of follow up for collection of Tax and Non-Tax arrears**

UTIS provides for a dashboard whereby the pendency in the collection of arrears of Tax and Non-Tax could be viewed by the officials in the ULBs and the Department.

**(i) Profession Tax**

Paragraphs 4.36 and 4.38 of the Municipal Manual of Government of Tamil Nadu, Volume II necessitate the municipalities to maintain Arrear Demand Register and take steps for their recovery before writing off irrecoverable demands. A sum of ₹ 6.84 crore was due from 26,228 assessments in the test-checked municipalities for the period 2013-18 as detailed in **Appendix 2.17**.

**(ii) Water Supply User charges**

The Operating Manual specifies disconnection of WS connections with user charges pending for more than 15 days from the date of demand as stipulated in WS Bye-laws of the municipalities and updating the status in the database. A sum of ₹ 96.33 crore was due from 3,59,346 consumers provided with WS connections by the municipalities in the State for the period from 1996-2018. Of this, ₹ 11.84 crore was due from 55,227 consumers of the test-checked municipalities.

**(iii) Under Ground Drainage User charges**

A sum of ₹ 38.28 crore of user charges was due for 1,11,772 UGD connections provided by the municipalities of the State for the period 1999-2018. Of this, ₹ 13.77 crore was due for 35,254 UGD connections in four test-checked municipalities viz., Kumbakonam, Pallavapuram, Thiruvavur and Udhamandalam.

**(iv) Non-Tax revenue**

A sum of ₹ 27.93 crore was pending collection towards lease rent in 15 out of the test-checked municipalities, during the period 2013-18 as detailed in **Appendix 2.18**.

None of the test-checked municipalities except Thirumangalam utilised the provision in the application software for automated computation of penal interest by configuring through the ULB Admin Login which led to the non-generation of demand for penal interest by the UTIS.

The municipalities replied (August 2018) that action will be taken to recover the dues. Despite provision for monitoring the progress of collection of revenues through the MIS reports available in the dashboard at all levels of hierarchy, an amount of ₹ 60.38 crore remained uncollected by the test-checked municipalities towards profession tax, WS user charges, UGD user charges etc., from 1996-97 to 2017-18.

CMA replied (December 2018) that provisions in the dashboard at all levels of hierarchy would be used for monitoring the progress of collection of Tax and Non-Tax arrears.

**2.3.9.3 Non-receipt of Profession Tax and Trade Licence fees through online**

CMA instructed (August 2017) that all services relating to profession tax and trade licence *viz.*, registration, receipt of payments, filing of returns, issue and renewal of licences, should be provided online to ensure swift delivery of the services.

For the period from October 2017 to March 2018 in the State, 62,454 (98 *per cent*) out of 63,978 profession tax remittances and 18,425 out of 18,437 trade licence fees collections were received in Cash/Demand Draft/Cheques. This indicated lack of wide publicity for seamless implementation of ‘anywhere anytime’ payment despite specific instructions.

CMA replied (December 2018) that instructions were issued to ULBs to comply with the orders issued after arranging for publicity.

**2.3.10 Conclusion**

The Performance Audit revealed (a) improvements in the system *viz.*, enabling the citizens to track the status of service requests, integration of separate database of municipalities into a centralised database and (b) deficiencies in planning, implementation of modules and monitoring. Urban Tree Information System adopted Closed Source Software in place of Open Source Software. The Citizen Web Portal provided limited services defeating the objective of ‘Anywhere Anytime’ services to the public. The Grievances Redressal System Module did not provide for toll free complaints. Citizen Facilitation Centre counters did not digitise the mandatory documents. The project scheduled for completion in two phases by August 2015 was in progress. Other significant deficiencies in the system were inaccuracies in data migration, non-correlation of mandatory fields in tables across various

modules and incorrect capture of data, assessment of Vacant Land Tax and Property Tax for same property, incorrect cancellation of assessments, missing demands, leakage of revenue and lack of monitoring.

### **2.3.11 Recommendations**

Government of Tamil Nadu may consider the following:

- All services may be made available in Citizen Web Portal and Citizen Facilitation Centres.
- Provision may be made to capture toll free complaints in Grievances Redressal System.
- Digitised documents may be made available for use in the workflow system.
- Integration of tables within and across modules may be ensured and automate all calculations in the modules.
- Reporting features available in the application software may be utilised for efficient monitoring and escalation matrix with alerts may be incorporated in the system.
- Modifications/deletions in the database may not be carried out through back-end operations.
- Specific observations made in respect of 16 test-checked municipalities may be looked into in the remaining 108 municipalities.

The matter was referred to Government in October 2018; reply has not been received (January 2020).

## MUNICIPAL ADMINISTRATION & WATER SUPPLY AND HOUSING & URBAN DEVELOPMENT DEPARTMENTS

### 2.4 Observance of Development Regulations for planning permission and building licence in Chennai Metropolitan Area

#### *Executive Summary*

*The Chennai Metropolitan Area measuring 1,189 square kilometres, cuts across three districts in the State of Tamil Nadu viz., Chennai, Kancheepuram and Tiruvallur. The local bodies under Chennai Metropolitan Area include the Greater Chennai Corporation, eight Municipalities, 11 Town Panchayats and 179 Village Panchayats in 10 Panchayat Unions. All types of building developments within Chennai Metropolitan Area limits require planning permission and building licence. The grant of planning permissions within Chennai Metropolitan Area is regulated in accordance with the Development Regulations forming part of Second Master Plan for Chennai Metropolitan Area. The Performance Audit on observance of Development Regulations for planning permission and building licence in Chennai Metropolitan Area covering the period from 2013 to 2018, conducted between April and September 2018, revealed the following:*

- *Planning permissions were issued for the construction of ordinary buildings with more than permissible floor area. Additional floors were constructed without planning permission. Structural stability of buildings was not ensured by local bodies.*
- *Local bodies and Chennai Metropolitan Development Authority did not explore the options for creation of green cover within Chennai Metropolitan Area despite availability of funds.*
- *Incorrect adoption of various parameters for calculation of floor space index resulted in non-assessment of premium floor space index charges of ₹ 66.94 crore.*
- *Provision of inadequate parking facilities was in violation of specified parameters. Enforcement Cell to monitor and control the unauthorised buildings was not strengthened.*

#### 2.4.1 Introduction

The Chennai Metropolitan Area (Ch.MA), comprising 1,189 square kilometres, cuts across three districts in the State of Tamil Nadu viz., Chennai, Kancheepuram and Tiruvallur. The local bodies under Ch.MA include the Greater Chennai Corporation (GCC), eight Municipalities, 11 Town Panchayats and 179 Village Panchayats in 10 Panchayat Unions<sup>65</sup>.

<sup>65</sup> Intermediary level of three-tier system of Panchayat Raj Institutions.

The Second Master Plan (SMP) for Ch.MA was notified by GoTN in September 2008 as a broad based plan for Ch.MA upto the year 2026 with a projected population of 125.82 lakh in the year 2026. The SMP is a comprehensive plan with a vision to make Chennai metropolis a more liveable, economically vibrant and environmentally sustainable city. Policies and strategies for development of metropolitan transport, shelter, water supply and sewerage and other physical and social infrastructure including solid waste management, macro drainage and environment protection have been proposed in the plan. Thus, the master plan guides public agencies to tailor their sectoral programming to the plan while facilitating private investments in the same manner. For a balanced, planned development, a multi-pronged approach was formulated for adoption which includes regulation of developments through land use.

All types of building developments within Ch.MA limits require planning permission and building licence (**Appendix 2.19**) before starting construction. The grant of planning permissions shall be regulated in accordance with the Development Regulations<sup>66</sup> (DR) forming part of SMP for Ch.MA. DR 3(1) stipulates that no person should carry out any development without the written permission of the Chennai Metropolitan Development Authority<sup>67</sup> (CMDA) or such other Executive Authority of Local Body or Agency or Person to whom the power has been delegated by CMDA. DR further envisages general and specific parameters for grant of planning permission to various types of buildings as detailed in **Table 2.34**.

**Table 2.34: Planning permission for various types of building**

Sl. No.	Type of Building	Definition of building as per Development Regulations	Authority issuing planning permission
1	Special Building	Residential/commercial building with more than two floors and/or exceeding floor area of 300 square metres	CMDA
2	Multi-storeyed Building	Buildings exceeding four floors and/or 15.25 metres in height	CMDA
3	Ordinary Building	Residential or commercial building, which does not fall within the definition of special or multi-storeyed building	Powers delegated (June 2009) by CMDA to local bodies

(Source: Development Regulations)

After issue of planning permission, the local body concerned was responsible for issuing building licence for construction under the Tamil Nadu District Municipalities Building Rules, 1972, the Chennai City Building Rules, 1972 and the Tamil Nadu Panchayat Building Rules, 1997 for all types of buildings including special buildings (SBs), multi-storeyed buildings (MSBs) and Group Development<sup>68</sup>.

<sup>66</sup> Approved by the Government of Tamil Nadu in September 2008.

<sup>67</sup> A statutory body constituted in 1974 under Tamil Nadu Town and Country Planning Act, 1971.

<sup>68</sup> Accommodation for residential or commercial or combination of such activities housed in two or more blocks of Special or Multi-storeyed buildings in a particular site, irrespective of whether these structures are interconnected or not.



### 2.4.2 Organisational structure

At the State level, the Principal Secretary to the GoTN, Housing and Urban Development (H&UD) Department exercises overall control on regulation of buildings which *inter-alia* includes issue of planning permission. The Principal Secretary is assisted by CMDA in regulation and development of buildings in Ch.MA and by the Director of Town and Country Planning in other districts. CMDA is headed by a Member Secretary who is assisted by Chief Planners, Senior Planners and Deputy Planners on technical matters and a Financial Advisor to assist matters relating to Accounts and Finance. The Principal Secretary, MAWS Department and the Principal Secretary, Rural Development and Panchayat Raj Department exercise overall administrative control over urban and rural local bodies respectively. GCC is headed by a Commissioner who is assisted by Superintending Engineer (Works) and Zonal Officers on matters relating to town planning. The municipalities are headed by Commissioners and assisted by Town Planning Officers. The Town Panchayats and the Panchayat Unions are headed by Executive Officers and Commissioners respectively who are assisted by Assistant Planner of CMDA for issuing planning permission.

### 2.4.3 Audit objectives

The audit objectives were to assess whether

- planning permissions, building licences and completion certificates were granted/issued as per the provisions contained in the Act, Rules and Regulations and in co-ordination with concerned stakeholders/line departments;
- inspections were conducted and penal actions taken as envisaged in the Rules and Regulations; and
- the developments were monitored as per Development Regulations.

### 2.4.4 Audit criteria

The main sources of audit criteria were derived from the following:

- The Tamil Nadu Town and Country Planning Act, 1971;
- The National Building Code of India;
- Development Regulations, 2008 alongwith its subsequent amendments;
- The Chennai City Building Rules, 1972;
- The Environment (Protection) Act, 1986;
- The Tamil Nadu District Municipalities Building Rules, 1972;
- The Tamil Nadu Panchayat Building Rules, 1997; and

- Government orders, rules, executive instructions and circulars issued from time to time.

#### **2.4.5 Audit coverage and methodology**

The Performance Audit was conducted during April - September 2018 covering the period 2013-18. An Entry Conference was held on 17 May 2018 with the Principal Secretaries of MAWS and H&UD Departments to discuss the audit objectives, criteria, methodology and sampling. The audit findings were discussed with related departments in an Exit Conference held on 18 December 2018.

The Performance Audit covered issues relating to planning permission, building licence, completion certificate, enforcement action by CMDA and local bodies by examining the related records in H&UD and MAWS Departments, CMDA and Head office of GCC besides survey reports of the Directorate of Fire and Rescue Services (DF&RS). Joint physical verifications were also carried out wherever required. Audit carried out test-check of records in four<sup>69</sup> out of fifteen Zones of GCC, two<sup>70</sup> out of eight municipalities, three<sup>71</sup> out of eleven Town Panchayats and three<sup>72</sup> out of ten Panchayat Unions. Details of planning permissions issued by test-checked local bodies in Ch.MA and CMDA during the period from January 2013 to December 2017 are furnished in **Table 2.35**.

**Table 2.35: Planning permission issued by test-checked local bodies and CMDA**

Year	GCC	Other local bodies	Total	CMDA		
				Ordinary buildings	Special buildings	Multi-storeyed buildings
2013	2,770	4,169	6,939	554	64	618
2014	1,644	3,766	5,410	319	36	355
2015	1,425	2,633	4,058	338	54	392
2016	1,616	2,664	4,280	310	53	363
2017	1,664	2,939	4,603	331	32	363
<b>Total</b>	<b>9,119</b>	<b>16,171</b>	<b>25,290</b>	<b>1,852</b>	<b>239</b>	<b>2,091</b>

(Source: Data furnished by local bodies and CMDA)

In respect of test-checked local bodies, 10 *per cent* of planning permissions were selected by random sampling. At CMDA, sampling was carried out on

<sup>69</sup> Zone V - Royapuram, Zone X - Kodambakkam, Zone XI - Valasaravakkam and Zone XV - Sholinganallur.

<sup>70</sup> Pallavapuram Municipality in Kancheepuram District and Poonamallee Municipality in Tiruvallur District.

<sup>71</sup> Madambakkam and Perungalathur Town Panchayats in Kancheepuram District and Thirunindravur Town Panchayat in Tiruvallur District.

<sup>72</sup> St. Thomas Mount Panchayat Union in Kancheepuram District, Puzhal and Tiruvallur Panchayat Unions in Tiruvallur District.

the basis of development charges<sup>73</sup> collected for the planning permissions accorded during the calendar years 2013 to 2017. Out of 2,091 planning permissions, all 141 planning permissions, for which development charges were ₹ 5 lakh and above, were checked. From the remaining 1,950 planning permissions, 25 *per cent* i.e. 488 planning permissions were selected by random sampling. The total number of 629 sampled planning permissions worked out to 30 *per cent* of total planning permissions issued.

### Acknowledgement

Audit acknowledges the cooperation extended by the officers and staff of H&UD and MAWS Departments, DF&RS, CMDA, GCC and other local bodies in conducting the audit.

### Audit findings

#### 2.4.6 Planning permissions

##### 2.4.6.1 Development without planning permission

DRs 26 and 28 classify residential/commercial buildings with more than two floors as SBs and MSBs respectively, the planning permission for which are issued by CMDA. Audit compared the planning permission data<sup>74</sup> of CMDA with the property tax data of GCC and municipalities within Ch.MA for the period 2013-17 adopting the common field as criteria *viz.*, 'name of the streets'. The comparison was made to verify whether the buildings were constructed with planning permission issued by CMDA.

Audit found that there were 1,15,633 new assessments in GCC and 51,232 in the municipalities within Ch.MA. Of these, 5,893 and 246 assessments respectively were 'independent buildings'<sup>75</sup> with 3 to 5 floors, out of which 2,437 assessments were in the test-checked zones of GCC and 198 assessments in the two test-checked municipalities. The data disclosed that planning permissions for 1,893 'independent buildings' in 1,110 streets as detailed in **Appendix 2.20** were not accorded by CMDA. Audit further observed that no planning permissions were issued by CMDA during 2007-17 in these streets. Besides, 380 buildings in 252 streets in test-checked four zones of GCC did not qualify for construction with more than two floors due to shortfall in road width as per DR provision.

It is evident from the above that local bodies while assessing property tax failed to detect unauthorised constructions above two floors despite the fact

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<sup>73</sup> Charges are levied for development of building at a rate prescribed per square metre of floor area.

<sup>74</sup> Data for the period from 2007 to 2017, though validity of planning permission is for three years, planning permissions given from the year 2007 were considered for comparison since maximum time allowed for completion from initial approval is six years including the three year period allowed from the date of renewal after initial validity of three years.

<sup>75</sup> A type of building with single ownership, classified by GCC for the purpose of property tax assessment.

that building licences were issued by the respective local bodies based on the planning permissions. This indicates that there was absence of co-ordination between the Revenue Wing and the Town Planning Wing of the local bodies and between the local bodies and CMDA.

Audit examined 2,635 property tax assessments of 'independent buildings' only and observed unauthorised constructions as above. The remaining property tax assessments of all types of buildings may be examined and appropriate action initiated.

During the Exit Conference, the Principal Secretary, H&UD Department, stated that the audit observations could form an useful basis to examine violations of delegation, if any, and directed the officials to issue notices to the individuals concerned for unauthorised constructions. Further, it was stated that a Special Task Force has been constituted to monitor the unauthorised constructions and action would be taken accordingly.

#### **2.4.6.2 Violations in planning permissions issued to ordinary buildings**

DR 2 (29) read with DR 25 specifies the planning parameters in respect of ordinary buildings as residential and commercial buildings with ground *plus* first floors or stilt *plus* two floors, up to nine metres height and with floor area<sup>76</sup> less than 300 square metres (sq.m). Local bodies issued (2013-17) planning permission for the construction of 25,290 buildings in Ch.MA, of which, records for 2,535 buildings were test-checked by Audit and violations noticed are detailed in **Appendix 2.21**.

(i) In 204 approved plans, the extent of floor area for development exceeded 300 sq.m. exceeding the limits of sanction of the local bodies and violating the planning parameters as stipulated under DR 25.

During the Exit Conference, the Principal Secretary, H&UD Department replied that the area restriction of 300 sq.m did not apply to residential buildings. The reply was not tenable as DR specifies that the area restriction applies to both residential and commercial buildings. There is no differentiation specified in the DR as to the type of buildings. The reply of GoTN was an interpretation applied outside the stipulations of the DR.

(ii) According to DR 2 (41), stilt floor is a part or whole of the floor at ground level where the building is on stilt and provides that stilt floor would not be counted as a floor for the purpose of defining SB or MSB, if it is to the standards exemptable<sup>77</sup> for Floor Space Index<sup>78</sup> (FSI). Accordingly, any construction in stilt floor within the ambit of FSI calculation would limit the constructable area in the second floor to the extent of non-FSI area available in the stilt floor. In 231 approved plans, the local bodies accorded planning permission for construction of stilt *plus* 2 floors with dwelling unit(s) on the

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<sup>76</sup> As per National Building Code of India, the area of the floor within the inside perimeter of the outside walls of the floor of the building under consideration with no deductions for corridors and passage-way, stairs, closets, thickness of interior walls, columns, lifts and building shafts or other features.

<sup>77</sup> Annexure XVIII of DR.

<sup>78</sup> The quotient obtained by dividing the total plinth area on all floors by the plot area.

stilt floor but the floor area approved for the second floor exceeded the non-FSI area on the stilt floor not in consonance with DR.

During the Exit Conference, GoTN instructed the local bodies to examine the issue.

#### **2.4.6.3 Planning permission for construction of ordinary buildings in plots earmarked for Economically Weaker Sections**

DR 29 (9) specified that in cases where the extent of the residential layout exceeds 10,000 sq.m, 10 *per cent* of the layout area shall be developed as Economically Weaker Section (EWS) plots and the owner or developer or promoter shall sell those plots only for this purpose.

Nine planning permissions were accorded by GCC on plots earmarked as EWS plots for construction of ordinary buildings having a single dwelling unit with floor area ranging from 83.82 sq.m. to 144.59 sq.m. As per DR 28(17), the maximum limit of floor area of a dwelling unit for Lower Income Group was fixed as not exceeding 45 sq.m. Audit observed that (i) the minimum floor area of the above approved plans exceeded even the maximum limit of floor area fixed for LIG dwelling units and (ii) the applications for construction were submitted by the promoters themselves and not by any EWS individual.

GCC replied (November 2018) that it could not insist on the promoters to sell the EWS plots as plots only or prevent them from applying for building permission in these plots. It was further stated (December 2018) that the planning permissions were accorded to the promoters on behalf of buyers of EWS plots. While accepting the reply of the GCC, Audit is of the view that the GCC needs to bring in a monitoring mechanism, whereby the objective of SMP to set aside plots for EWS in order to encourage social housing provision by private developers of large group developments/MSBs could be effectively achieved.

#### **2.4.6.4 Structural stability of the buildings not ensured**

CMDA, while issuing payment advice for applicable charges, insists for a report by the Structural Engineer/Licensed Surveyor/Architect on the various stages of construction as per approved plan. Such reports, which should mention about the technical specification at each stage of construction, were not available in records produced to Audit. CMDA accorded 2,091 planning permissions during 2013-17, of which 629 were test-checked. The planning permissions were forwarded by CMDA to local bodies for issue of building licence, specifying that the planning permission does not cover the aspect of structural stability including the safety during the construction of building.

As per Building Rules, local bodies should satisfy that provisions were made for the safety and structural soundness before issue of building licence. The local bodies, however, in reply to Audit query stated (June 2018 - December 2018) that (a) there was no sufficient staff with technical/managerial expertise to monitor the structural stability of all SBs/MSBs for which building licences were issued, (b) the responsibility for the structural stability was entrusted to

the respective land owners/builders/promoters/licensed surveyors/architects associated with the buildings and (c) ensuring structural stability and safety of the buildings was the responsibility of CMDA. The reply was untenable as the Building Rule envisaged that the local body should monitor and ensure the structural stability of the buildings.

CMDA stated (December 2018) that structural design of buildings of height exceeding 60 metres was obtained from Indian Institute of Technology (IIT), Madras which was then vetted by Public Works Department (PWD). It was further stated that PWD furnishes structural clearance for the design drawings placing the responsibility with the Structural Engineer for its implementation at site.

This indicated that for buildings less than 60 metres in height, no monitoring mechanism was in place either with CMDA or with local bodies to ensure the structural stability of such buildings.

## **2.4.7 Development charges and Open Space Reservation charges**

### **2.4.7.1 Development charges**

CMDA collects Development Charges (DC) as per Section 59 of the Tamil Nadu Town and Country Planning Act, 1971, for development of building. The rates of DC are fixed by the Government based on the extent of land and the floor area of the proposed building.

During 2013-18, CMDA collected ₹ 64.59 crore towards DC on buildings proposed for construction within the limits of Ch.MA. GoTN instructed (June 2010) CMDA to release 75 *per cent* of the DC to the respective local bodies. CMDA, however, released only ₹ 34.62 crore (54 *per cent*) to the local bodies against the dues of ₹ 48.44 crore as indicated in **Appendix 2.22**.

Despite collection of ₹ 4.08 crore for the period 2013-16 in rural limits, CMDA did not release the amount of ₹ 3.05 crore that was due to the panchayat unions. In urban limits, a sum of ₹ 10.77 crore was pending (September 2018) release to the ULBs.

### **2.4.7.2 Open Space Reservation Charges**

Second Master Plan stated that Chennai City had only about two *per cent* of the area as declared parks and in Ch.MA, the declared forest cover was about 24 square kilometres which accounted for about two *per cent* of the Ch.MA area. It was also observed in the SMP that there was ample scope for further development of green cover within Ch.MA, particularly along roads, drains, riverbanks, etc.

As per Annexure XX to DR, reservation of land for community recreational purposes was to be made, before according planning permission for SBs, Group Developments and MSBs. Where the total extent of the proposed site was between 3,000 sq.m. and 10,000 sq.m., the developer should reserve 10 *per cent* of the area (excluding roads) for public parks/play grounds and hand over that land to the local authority or the designated local bodies

through a registered gift deed<sup>79</sup> or pay the market value of the equivalent land (10 per cent excluding the first 3,000 sq.m.) if it was not possible to provide open space due to physical constraints. Where the total extent exceeded 10,000 sq.m., it was obligatory for the developer to reserve 10 per cent of the area excluding roads.

During 2013-18, CMDA collected ₹ 484.92 crore against Open Space Reservation (OSR) charges i.e., market value of the equivalent land in lieu of the reserve area of 10 per cent. GoTN instructed (June 2010) CMDA to release 75 per cent of the OSR charges to the respective local bodies. CMDA, however, released only ₹ 270.56 crore (56 per cent) to the local bodies against the dues of ₹ 363.68 crore as indicated in **Appendix 2.22**.

Despite collection of ₹ 58.87 crore in rural limits during the period 2013-16, CMDA did not release (September 2018) the dues of ₹ 44.15 crore to the panchayat unions. In urban limits, a sum of ₹ 48.97 crore (15 per cent) was pending release to the ULBs.

CMDA stated (December 2018) that speedy action was being taken to transfer the 75 per cent of DC and OSR charges to rural local bodies.

**(i) Collection of charges in lieu of provision of Open Space Reservation**

As per DR 26(11) and 28(8) read with Annexure XX, value of 10 per cent of the total extent of site is payable in lieu of OSR land by the proponent, only where it was not possible to provide open space due to physical constraints. No such area reserved should measure lesser than 100 sq.m. with a minimum dimension of 10 metres.

Audit, however, observed that in 80 out of 629 selected planning permission records pertaining to the period 2013-17, OSR charges were collected in lieu of reservation of 10 per cent of OSR land without recording the reasons for physical constraint. In 13 cases, an amount of ₹ 31.45 crore was collected (**Appendix 2.23**) as OSR charges in lieu of provision of land even though there were no recorded physical constraints for not reserving OSR lands, wherein the frontage in 13 sites ranged from 42.91 metres to 102.95 metres which indicated that there was no physical constraint to provide open space. Audit is of the opinion that if maximum of 20 metres was allowed for the purpose of gates, the net availability would be between 22.91 metres and 82.95 metres, which could have easily been reserved and handed over as OSR land.

**(ii) Non-creation of open space reservation**

CMDA instructed (October 2010) that OSR charges should be utilised only for provision of parks and playfields or improvement of existing ones and in the absence of such open space, the amount to be utilised for implementation of Detailed Development Plan/Master Plan.

<sup>79</sup> Registered instrument/document required to effect voluntary transfer of property without consideration.

Out of ₹ 234.50 crore received from CMDA towards OSR charges during 2013-17, GCC had spent ₹ 188.06 crore on existing parks, gardens and play grounds. GCC stated (September 2018) that funds were remitted to General Fund Account and that no land was acquired for creation of parks/playfields during the period.

It was envisaged in SMP that there was ample scope for further development of green cover within Ch.MA particularly along roads, drains and riverbanks, which was not explored. Collection of OSR charges in lieu of open spaces without recording physical constraints as discussed in **Paragraph 2.4.7.2 (i)** defeated the purpose of the provision.

**(iii) Non-transfer of Open Space Reserve lands in favour of the local bodies**

During 2013-18, CMDA received 164 gift deeds from developers relating to reservation of land for community recreational purposes. Of this, 88 gift deeds were transferred to local bodies and the remaining 76 gift deeds were pending (September 2018) to be transferred to the local bodies concerned. In the test-checked 629 planning permissions, 48 gift deeds were received by CMDA of which 14 gift deeds (three of which were more than four years old) were not transferred to the local bodies concerned (**Appendix 2.24**).

CMDA stated (December 2018) that local bodies have been addressed in this regard. Specific reasons for not transferring the gift deeds to local bodies were not furnished.

## **2.4.8 Premium Floor Space Index**

Floor Space Index was envisaged as one of the principal tools to regulate density of development with reference to infrastructure availability and provision. Density needs to be linked not only to carrying capacity of land and infrastructure, but also to several sociological parameters particularly for low income communities. The parameters for appropriate FSI and Premium FSI incorporated in the DR are detailed in **Appendix 2.25**.

The additional benefit of Premium FSI was allowed by collection of charges at guideline value of the Registration Department, equivalent to the cost of proportionate land of the additional built area. During the period 2013-18, CMDA collected ₹ 1,467 crore towards Premium FSI charges and remitted into the Government account. Deficiencies noticed in calculation of Premium FSI are discussed in the following sub-paragraphs.

### **Incorrect adoption of parameters for the calculation of FSI**

**(i) Inclusion of plot area gifted for road widening**

DR 28 stipulates special rules for MSBs which include availability of abutting road with minimum width of 18 metres for a stretch of 500 metres and the maximum permissible normal FSI of 2.50. Further, Annexure XXI to DR specifies that FSI benefits can be extended only for the transfer of land required for any road widening/new road formation proposed in the Master Plan/Detailed Development Plan.



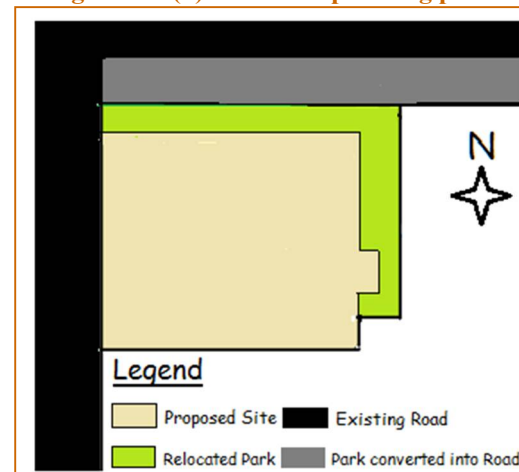
(a) CMDA received an application seeking planning permission for group development of MSBs at a site within GCC jurisdiction. The site inspection report (March 2015) of CMDA disclosed that the gross plot area was 56,429.71 sq.m. and the site abutted a road on the western side with width of 13 to 16.85 metres. Also, another road existed on the northern side with a width of 10.40 to 14.60 metres. Meanwhile, GoTN directed (February 2015) GCC to remove a road side park measuring 2,704.01 sq.m. existing on the northern side road of the MSB site (**Diagram 2.1(a)**) for widening the road as per SMP and permitted to relocate the park in the same area. The MSB applicant offered an equivalent extent of land from the proposed site and gifted (December 2015) 2,704.01 sq.m. of land to GCC for relocating the roadside park in order to widen the road on the northern side of the site and gain an additional width of nine metre, which would qualify the site for construction of MSB. Based on this, CMDA accorded planning permission<sup>80</sup> for construction of the MSBs with 1,188 dwelling units on a total FSI area of 1,39,872.79 sq.m., with FSI of 2.48 (**Diagram 2.1(b)**). FSI benefit was not applicable for the land gifted for road widening to make the road as qualifying for the proposed development. Accordingly, taking into account planning permission accorded, the plot area of 53,725.70 sq.m.<sup>81</sup> should have been taken after reducing the extent of land donated for relocation of park, for the calculation of FSI.

**Diagram 2.1(a): Site prior to planning permission**



(Source: Planning permission records of CMDA)

**Diagram 2.1(b): Site after planning permission**



(Source: Planning permission records of CMDA)

<sup>80</sup> Planning permit number - 9094 dated 30 August 2016.

<sup>81</sup> 56,429.71 sq.m. less 2,704.01 sq.m.

The variation in the plot area escalated the FSI from 2.48 to 2.60 which resulted in a Premium FSI of 0.10 (i.e., FSI above the normal FSI of 2.50). Thus, the failure of CMDA to exclude the area for relocation of park resulted in excess allowance of FSI area. The value of the proportionate land required for excess FSI area at guideline value of ₹ 6,500 per square foot (sq.ft) was ₹ 15.04 crore (**Appendix 2.26 - Sl.No.5**) which would have been the Premium FSI charges payable.

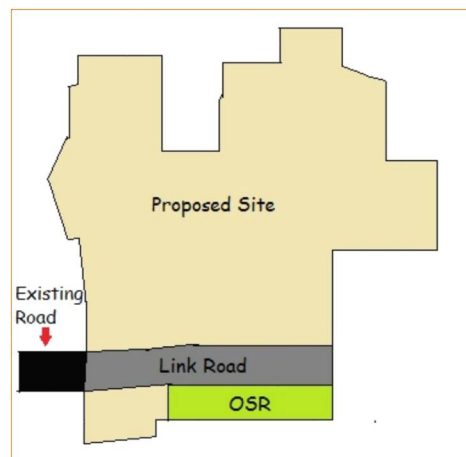
(b) CMDA accorded planning permission<sup>82</sup> for construction of MSB group development in a site having an extent of 62,628 sq.m. with FSI area of 1,56,458.44 sq.m. and FSI of 2.50. The applicant had gifted 3,600 sq.m. of plot area for link road which serves as access to OSR (**Diagram 2.2**) as well as to qualify the parameter of frontage as per DR 28(2). Accordingly, FSI worked out by Audit based on the reduced plot area of 59,028 sq.m.<sup>83</sup> was 2.65. Failure of CMDA to exclude

the area gifted for link road resulted in excess allowance of FSI area by 0.15 above the normal permissible FSI and the value of proportionate land at guideline value of ₹ 2,000 per sq.ft amounting to ₹ 7.62 crore (**Appendix 2.26 - Sl.No.3**) was chargeable as Premium FSI.

**(ii) Inclusion of area gifted for provision of link road to OSR**

DR 28(8) read with Annexure XX stipulates that the land reserved for OSR should be at ground level in a shape and location abutting a public road. Further, DR 28 (2) (19) empowers CMDA to insist on the promoter to provide link road as connectivity to adjoining land areas through the sites applied for development. Annexure XXI to DR, however, extends FSI benefits only for the transfer of land required for any new road formation proposed in the Master Plan/Detailed Development Plan.

**Diagram 2.2: Provision of link road**



(Source: Planning permission records of CMDA)

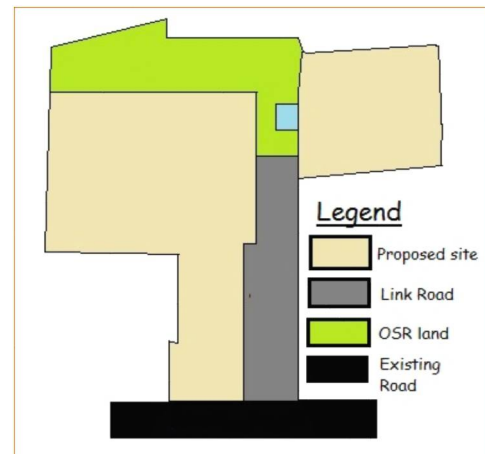
<sup>82</sup> Planning permit number - 9020 dated 10 July 2015.

<sup>83</sup> 62,628 sq.m. minus 3,600 sq.m.

(a) CMDA accorded planning permission<sup>84</sup> for construction of a MSB group development with 913 dwelling units having an abutting road width of 61 metres. The plot area was 35,893.13 sq.m. and FSI area was 89,545.43 sq.m. The applicant gifted 3,810.47 sq.m. of land as link road to the OSR land provided on the rear side of the site (**Diagram 2.3**).

In contravention of the DR provisions, CMDA included the total area of the link roads measuring 3,810.47 sq.m. and FSI allowed was 2.50. Failure to exclude the plot area gifted for link roads resulted in allowance of FSI of 2.79, i.e., 0.29 above permissible FSI. The value of the proportionate land required for excess FSI area at guideline value of ₹ 4,000 per sq.ft was ₹ 16.02 crore (**Appendix 2.26 - Sl.No.6**) was chargeable as premium FSI.

**Diagram 2.3: Provision of link road to OSR**



(Source: Planning permission records of CMDA)

(b) CMDA accorded planning permission<sup>85</sup> for construction of a MSB group development in a site having an extent of 39,860.80 sq.m. with FSI area of 99,542.64 sq.m. at FSI 2.50 and abutting road width of 18 metres. The applicant gifted land measuring 7,705 sq.m. to provide access to the OSR lands not connecting any public road beyond the site (**Diagram 2.4**). Audit, however, observed that the area gifted as link road to OSR was also included for calculation of FSI of 2.50. By excluding the area of the link road, the FSI worked out by Audit was 3.10. Incorrect inclusion of plot area gifted for link roads resulted in allowance of excess FSI of 0.60 and the value equivalent to the cost of proportionate land at guideline value of ₹ 2,750 per sq.ft amounting to ₹ 22.84 crore (**Appendix 2.26 - Sl.No.1**) was chargeable as Premium FSI.

**Diagram 2.4: Link road to OSR**

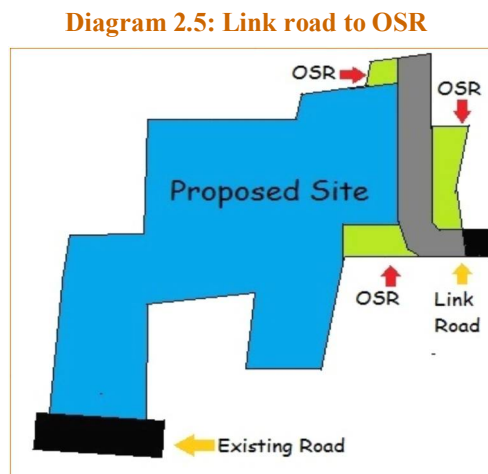


(Source: Planning permission records of CMDA)

<sup>84</sup> Planning permit number - 9097 dated 09 September 2016.

<sup>85</sup> Planning permit number - 7200 dated 28 June 2013.

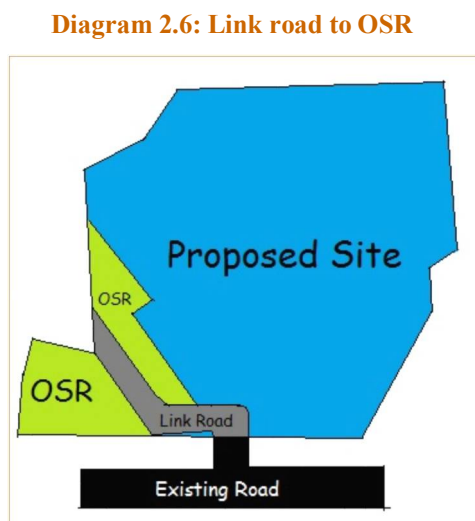
(c) Planning permission<sup>86</sup> for construction of a SB group development in a site having an extent of 22,014.72 sq.m. with FSI area of 32,919.74 sq.m. at FSI 1.50 abutting a 16.20 metre wide road was issued. The applicant gifted land measuring 1,487.36 sq.m., as link road to OSR not connecting any public road beyond the site (**Diagram 2.5**). Audit, however, observed that the area gifted as link road was included for calculation of FSI of 1.50. By excluding the area of the link road, the FSI worked out by Audit was 1.60.



(Source: Planning permission records of CMDA)

Thus, incorrect inclusion of link road portion which serves as an access to OSR land, resulted in FSI going beyond the normal FSI of 1.5 by 0.10 and the value equivalent to the cost of the proportionate land at guideline value of ₹ 2,200 per sq.ft amounting to ₹ 3.24 crore (**Appendix 2.26 - Sl.No.4**) was chargeable as premium FSI.

(d) Planning Permission<sup>87</sup> was issued for construction of a MSB with stilt *plus* seven floors in a plot area of 35,126 sq.m. which abutted a 12 metres road which ended at the entry point of the site. The total FSI area proposed was 52,643.69 sq.m. at FSI of 1.50. The applicant had gifted a link road measuring 1,430 sq.m. to OSR (**Diagram 2.6**). Audit observed that the above FSI of 1.50 was arrived by CMDA for the total plot area, without exclusion of area gifted for link road. Audit worked out the FSI as 1.56 by excluding the extent of land gifted for link roads against the allowed FSI of 1.50. The value of the proportionate land required for excess FSI area at guideline value of ₹ 1,500 per sq.ft amounting to ₹ 2.18 crore (**Appendix 2.26 - Sl.No.2**) was chargeable as Premium FSI charges.



(Source: Planning permission records of CMDA)

As the amounts collected towards the award of Premium FSI are utilised for infrastructure development of the area, the incorrect adoption of FSI parameters resulting in non-assessment of Premium FSI of

<sup>86</sup> Planning permit number - 9413 dated 20 November 2015.

<sup>87</sup> Planning permit number - 8121 dated 26 September 2013.

₹ 66.94 crore (**Appendix 2.26**) brought out in the preceding paragraphs would affect the infrastructure development activities.

CMDA stated (December 2018) that the FSI benefits were extended as per the clarification issued (May 2015) by them. The reply was not tenable as the DR provides for extending the FSI benefits only for the transfer of land required for any road widening/new road formation proposed in the Master Plan/Detailed Development Plan and the clarification issued by CMDA contradicts the DR provision.

**(iii) Sanction of inadmissible additional FSI**

DR 26 stipulated that in the case of residential/predominantly residential developments, where the dwelling units for Lower Income Group did not exceed 50 sq.m. in floor area each, 30 *per cent* of normally permissible FSI was additionally allowable over and above the normal FSI of 1.5 i.e. upto 1.95. CMDA accorded planning permission<sup>88</sup> for construction of an LIG residential building with 36 dwelling units in stilt *plus* four floors after providing FSI at 1.85, including additional FSI of 30 *per cent*. The plot area measured 1,040.40 sq.m. and the FSI area was 1,919.16 sq.m. Audit, however, observed from the plan documents that the floor area of each dwelling unit worked out to 69.54 sq.m.<sup>89</sup> against the allowable limit of 50 sq.m. each. Accordingly, the applicant was ineligible for the benefit of additional FSI of 0.35 and the value equivalent to the cost of the proportionate land at guideline value of ₹ 11,000 per sq.ft worked out to ₹ 2.87 crore. Failure of CMDA to ensure provision of floor area not exceeding 50 sq.m. per dwelling unit resulted in allowance of inadmissible additional FSI area to the applicant.

CMDA stated (December 2018) that the area of each dwelling unit in the above planning permits was less than 50 sq.m. without inclusion of common areas *viz.*, corridor, lobby, staircase and lift. The reply was not tenable as the DR specified the limitation of less than 50 sq.m. in floor area for each dwelling unit which includes common areas.

**2.4.9 Issue of planning permission in violation of various parameters of Development Regulations**

**2.4.9.1 Inadequate provision of parking space**

DR specified standards<sup>90</sup> for parking spaces and parking facilities within the SB/Group Development/MSB site for the use of occupants and persons visiting the premises for any activity.

Audit observed that planning permission was accorded in 18 out of test-checked 629 cases with inadequate car and two wheeler parking spaces as shown in **Table 2.36**.

<sup>88</sup> Planning permit number - 8297 dated 10 September 2013.

<sup>89</sup> Floor area of a dwelling unit = Total floor area (FSI (1,919.16 sq.m) + Balcony area (83.72 sq.m.) + Stilt Parking area (500.72 sq.m.))/Number of dwelling units (36).

<sup>90</sup> DR 26 (7) (a), 27 (6) (a) and 28 (4) (a) read with Annexure XVI.

**Table 2.36: Shortfall in provision for parking spaces**

Type of vehicle	Number of parking slots required	Number of parking slots provided	Shortfall
Cars	13,905	11,141	2,764 (19.88 per cent)
Two-wheelers	21,251	17,005	4,246 (19.98 per cent)

(Source: Planning permission records of CMDA)

Shortfall in car parking spaces ranged from 11 to 710; Similarly, for two wheelers, it ranged from 29 to 1,686 as detailed in **Appendix 2.27**. Violation of parameters specified in the DR for providing parking spaces would affect easy and free movement of vehicles.

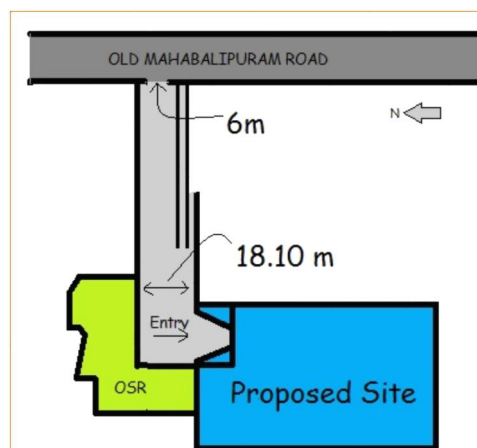
CMDA stated (December 2018) that parking provisions have been calculated as per DR. The requirement for parking spaces was, however, calculated by CMDA based on FSI area and not on floor area as stipulated in DR.

#### **2.4.9.2 Shortfall in road width**

(i) DR 28 specified special rules for MSBs and stipulated that the minimum width of the abutting road to the site should be 18 metres or a part of the site should gain access from public road with a minimum width of 18 metres, for a continuous stretch of 500 metres. Further, Part III of the National Building Code of India stipulated that the minimum width of the main street abutting the site should be 12 metres and that one end of this street should join another street with a minimum width of 12 metres. The stipulation was made considering the movement of fire tenders as part of fire safety measures.

CMDA forwarded (October 2013) to Government a proposal for construction of MSB in a site having a plot extent of 45,716.01 sq.m. Even though the width of the abutting road in front of the site was 18.10 metres, it was less than 18 metres throughout the stretch and narrowed down to six metres at the entry point of the road (**Diagram 2.7**). The proposal, however, did not highlight the shortage in road width at the entry point. Government approved (November 2013) the proposal based on which CMDA issued (March 2014) planning permission<sup>91</sup>. This was in violation to the stipulation of the National Building Code of India.

**Diagram 2.7: Road width at entry point**



(Source: Planning permission records of CMDA)

CMDA stated (December 2018) that planning permission was accorded based on the width of abutting road. Audit observation, however, relates to shortage in road width at the entry point which was not considered by CMDA for

<sup>91</sup> Planning permit number - 8153 dated 13 March 2014.

according planning permission. Further, joint physical verification conducted (December 2018) along with officials of CMDA revealed that the abutting road width comprised of a carriageway (7.9 metres), footpath on sides of the road (2.2 metres and 2.9 metres), cement concrete lane (3.1 metres) and cement concrete median (2.3 metres). Accordingly, the actual road width was restricted to 7.9 metres which was less than the required width of 18 metres.

(ii) As per DR 27, a Group Development is an accommodation housed in two or more blocks of buildings in the site with a minimum abutting road width of 10 metres for a stretch of 250 metres.

CMDA accorded planning permission<sup>92</sup> for construction of a SB group development in two blocks with 75 dwelling units in stilt *plus* four floors on a site which gains access from a road with a width of nine metres. The plot area was 3,592 sq.m. with a total FSI area of 6,338.40 sq.m. As the road width was less than 10 metres, group development at the site was not permissible. The decision of CMDA to grant planning permission for group development was in violation of DR.

CMDA stated (December 2018) that the planning permission was in order for the reasons that though the site abuts nine metre road, the applicant had provided a link road of 7.2m wide to ensure access to the western side of the site. The reply was not acceptable as DR stipulates a minimum abutting road width of 10 metres.

(iii) As per explanation under DR 28 (1) (b), the qualifying road width for permitting MSB should be available at least for a stretch of 500 metres along the length of the road abutting the site and the stretch from a junction can be straight or a curve or *zig-zag* or combination of the above. Further, Part III (4.6 (a)) of National Building Code of India stipulated that for high rise buildings and SBs, the width of the main street on which the building abuts should not be less than 12 metres and one end of this street shall join another street with width not less than 12 metres. Planning permission<sup>93</sup> was, however, issued to an applicant for construction of MSB group development in a plot area of 14,430 sq.m. with a total FSI area of 21,631.94 sq.m. abutting a road not having a consistent width<sup>94</sup> of 12 metres for a stretch of 500 metres, in violation of the provisions of DR as well as National Building Code of India.

CMDA stated (December 2018) that the planning permission was accorded considering the abutting road width as 12 metres. Inspection reports of CMDA, however, recorded that 12 metres abutting road width was not available for a continuous stretch of 500 metres and accordingly, MSB development was not permissible in the site. The reply contradicted the inspection reports.

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<sup>92</sup> Planning permit number - 8864 dated 25 November 2014.

<sup>93</sup> Planning permit number - 11163 dated 23 August 2017.

<sup>94</sup> The width of the road varied from 8.20 metres at the junction to 9.30, 10.70, 12.85 and 13.90 metres in the entire stretch of the road.

(iv) DR 26 provided that in case of residential/predominantly residential SBs with stilt *plus* four floors, the minimum width of the public road on which the site abuts should be 10 metres. The DR further provided that if the extent of the site was more than 1,100 sq.m., SBs for residential use may be permitted on a site abutting or gaining access from a nine metre wide road. Also, if the general road width was less than 10 metres and the site owner agrees to leave enough space to have 10 metres only in front of his site, such provision was not acceptable. DR 36 prescribed the allowable Premium FSI for plots with abutting road width between 9 and below 12 metres at 20 *per cent*, 12 and below 18 metres at 30 *per cent* and 18 metres and above at 40 *per cent*, of the normally allowable FSI of 1.5.

CMDA issued planning permission<sup>95</sup> for construction of a stilt *plus* four floors residential SB apartments, in nine blocks in a pattern of single block with abutting road width of 9.45 metres, which as per DR provision was adequate for 20 *per cent* Premium FSI in terms of road width. The applicant gifted an extent of 6.10 metres of land for widening the road in front of the site to facilitate construction of the SB with Premium FSI of 30 *per cent* above the normal FSI. Accordingly, for a plot area of 7,805.37 sq.m., total FSI area of 15,215.74 sq.m. with 30 *per cent* Premium FSI was allowed, which worked out to FSI of 1.95 instead of 1.80 (20 *per cent* above 1.50). This was in violation of DR provisions as the road width was widened only in front of the proposed site and not uniformly across the entire stretch of the road.

CMDA stated (December 2018) that the planning permission was in order, without providing reason. Hence, the observation is reiterated.

#### **2.4.10 Delay in processing planning permissions and building licences**

CMDA or the respective local bodies shall, within 30 days of receipt of applications, call for further information as deemed necessary and shall grant or refuse the permission taking into account factors like purpose of construction, suitability of the place, future developments and maintenance of the planning area. Permissions granted for development under Section 49 of the Tamil Nadu Town and Country Planning Act, 1971, remain in force for a period of three years<sup>96</sup> from the date of sanction, unless the appropriate planning authority extends the period which should not exceed the prescribed time limit.

Delays in issue of planning permission and building licence and obtaining completion certificate are discussed in the succeeding paragraphs.

##### **2.4.10.1 Delay in issue of planning permission**

The Citizen Charter of CMDA envisaged that applications for planning permission should be disposed off within 45 working days from the date of

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<sup>95</sup> Planning permit number - 9193 dated 20 July 2015.

<sup>96</sup> Three years extended to five years for planning permissions issued on or after 31 March 2017.



receipt of applications in complete shape, in respect of special, industrial and institutional buildings. Further, in the case of incomplete applications, the same were to be returned within 21 days of submission of application for rectification of the defects. An analysis of planning permission database on 'pp application' and 'approved application' for the period from January 2013 to December 2017 revealed that 937 (51 *per cent*) out of 1,852 applications for special, industrial and institutional buildings were disposed off with a delay of more than one month (after allowing the stipulated 45 days) as detailed in **Table 2.37**. It was also noticed from the above database that, no application was returned to the applicant.

**Table 2.37: Delay in issue of planning permission**

Delay (working days)	Number of applications
31 to 60	151
61 to 365	715
More than 365	71
<b>Total</b>	<b>937</b>

(Source: CMDA database)

During the Exit Conference, CMDA stated that the planning permissions would be issued without delay on implementation of single window portal.

#### **2.4.10.2 Delay in issue of building licence by GCC**

The GCC was responsible for issuing building licence under Chennai City Building Rules, 1972 for all types of buildings including special buildings, multi-storeyed buildings and group development for which planning permissions are issued by CMDA. The application for planning permission and building licence is to be made using online mode only through licensed surveyors. The building licence should be issued after conducting site visit within seven days of receipt of application. The data on issue of building licence maintained by GCC revealed that in four test-checked zones, the required field visit was conducted with a delay of one to 339 days in respect of 2,235 (37 *per cent*) cases out of 6,101 applications received in complete shape. Consequently, there was delay of 16 to 620 days in the issue of building licence as detailed in **Appendix 2.28**.

During the Exit Conference, GCC stated that online submission of planning permission application for ordinary buildings was implemented by them. Reasons for the delay in conducting field visit and subsequent issue of building licence were, however, not specified.

#### **2.4.10.3 Issue of planning permissions before obtaining environment clearance**

Under the Environment (Protection) Act, 1986, GoI stipulated (September 2006) that all buildings/construction projects with built area of 20,000 sq.m. or more and Townships/Area Development Projects covering an area above 50 hectares and (or) with built area above 1,50,000 sq.m. require environment clearance from State Environment Impact Assessment Authority (SEIAA)

before issue of planning permission. During 2013-18, 108 planning permissions were issued with environment clearance, out of which CMDA had issued planning permissions for 31 group developments before obtaining environment clearance as detailed in **Appendix 2.29**.

CMDA stated (December 2018) that planning permissions were issued now after ensuring environmental clearance.

#### **2.4.10.4 Non-implementation of Web-enabled Single Window System for planning permission approval**

GoTN directed (May 2015) CMDA to develop a common web-based integrated software<sup>97</sup>, which would facilitate seamless process of planning approval, monitoring of development during the construction phase and issue of completion certificate in centrally architected fashion. CMDA awarded (February 2016) work order to IIT, Madras for study on the software. The scope of the project was to enable online submission of application for planning permission, work flow process at CMDA, creating link with other departments for issuance of No Objection Certificates and other local bodies to direct the files after approval. The study involved two phases at a total cost of ₹ 65.28 lakh. The timeline for Phase I and Phase II was 96 weeks i.e., from March 2016 to February 2018.

IIT, Madras prepared (June 2016) the SRS, based on which CMDA requested (March 2017) Tamil Nadu e-Governance Agency (TNeGA) for the development of the web-based applications. Further, TNeGA was requested (May 2017) to take necessary action to develop the software within nine months. Audit, however, observed that the software for Web-enabled Single Window System was not developed (September 2018), resulting in non-establishment of co-ordination among stakeholders.

CMDA replied (December 2018) that the software for the project would be completed shortly.

### **2.4.11 Monitoring**

#### **2.4.11.1 Ineffective monitoring of approved plans**

(i) DR 4(5) envisages that applicant/owner/builder/promoter/power of attorney holder and any other person who is acquiring interest shall not put the building to use without obtaining completion certificate from CMDA.

CMDA maintains two databases<sup>98</sup> for monitoring their day-to-day activities in the process of issue of planning permission and completion certificate. The issue of completion certificate was entrusted to the Enforcement Cell of CMDA for the purpose of follow up action on the developments approved. Of the 629 planning permission records selected for audit, 324 records related to the period between January 2013 and June 2015, the construction work of which could have been completed as the validity of planning permission was

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<sup>97</sup> Relating to DTCP, CMDA and GCC.

<sup>98</sup> One for capturing details of applicant applying for planning permission and the other for issue of completion certificate.

three years from the date of issue, if not renewed for further period. On comparison of those 324 planning permission records with completion certificate database, it was observed that completion certificate was issued to 125 buildings (39 *per cent*) only. The absence of any information on the completion of the remaining buildings pointed to the failure of CMDA to verify whether the constructions were carried out as per the approved plans.

CMDA stated (December 2018) that the issues pointed out by Audit would be covered in the process of on-line submission of completion certificate to be implemented shortly.

(ii) As per DR 24(4(a)), areas around Mass Rapid Transit System (MRTS) from Thirumayilai to Velachery have been declared as MRTS influence area to encourage transit sensitive activities and allow densification. FSI allowable in this area is maximum two for non-multi-storeyed residential developments with dwelling units each not exceeding 75 sq.m. in floor area.

CMDA accorded planning permission<sup>99</sup> for construction of a SB having stilt *plus* four floors with 71 dwelling units<sup>100</sup> in the MRTS influence area. The plot extent was 2,757.99 sq.m. with FSI area 5,468.26 sq.m. and FSI factor 1.98. Audit analysis of the property tax data of GCC revealed that the floor area of 57 out of the 71 dwelling units exceeded the limit of 75 sq.m. by 15 to 22 *per cent*. CMDA issued completion certificate for the achieved FSI area of 5,545.34 sq.m. which was 77.08 sq.m. more than the approved area of 5,468.26 sq.m. The excess FSI was within the permissible limit of 0.03 *per cent* as recommended by the Monitoring Committee. CMDA, however, did not take into account the restriction on the floor area of each dwelling unit, but considered the overall excess. This indicated failure on the part of CMDA to ensure compliance with the parameters specified for MRTS influence area while conducting site visit of the completed building, resulting in violation of DR provisions.

CMDA stated (December 2018) that the planning permission issued by them was in order. Audit is of the view that construction of the building in deviation from the planning permission was indicative of lack of monitoring of the compliance with specifications of planning permission while issuing completion certificate. CMDA needs to strengthen the monitoring and enforcement mechanisms with adequate checks and balances to ensure that such violations do not occur.

#### **2.4.11.2 Non-strengthening of Enforcement Cell to monitor and control unauthorised buildings**

Enforcement Cell (EC) of CMDA was formed in the year 1985 to monitor compliance to the approvals issued by CMDA. Among other functions, the EC inspects constructions, issues completion certificate and performs follow up action on developments. CMDA submitted (February 2015) a proposal to GoTN to strengthen the EC in CMDA by increasing the staff strength to

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<sup>99</sup> Planning permit number - 8586 dated 31 December 2013.

<sup>100</sup> 60 dwelling units upto a maximum of 75 sq.m. each and 11 dwelling units upto a maximum of 50 sq.m. each.

monitor the vast area of Ch.MA and to take enforcement actions against building violations. GoTN directed (April 2015) CMDA to submit a revised staff requirement proposal by considering outsourcing and use of available technology. Accordingly, CMDA submitted (September 2015) revised proposal for 37 additional officers/staff and 45 outsourced persons. GoTN directed (October 2015) CMDA to furnish the financial implication towards the revised staff requirement which was furnished (January 2018) by CMDA only in respect of additional officers/staff. Further clarifications called for (April 2018) by GoTN were not furnished by CMDA so far (September 2018). Thus, delay in submission of financial implication to GoTN by CMDA for more than two years had resulted in non-strengthening of EC's functions as there was vacancy of 32 staff against the sanctioned strength of 66 staff as of November 2018.

CMDA did not provide reasons for the non-strengthening of EC (December 2018).

#### **2.4.11.3 Shortfall in inspection by CMDA on issuance of planning permission by local bodies**

GoTN appointed (December 1983) CMDA as the inspecting authority for annual inspection of Town Planning Sections of 29 local bodies within Ch.MA to review the issuance of planning permissions. During 2013 to 2017, as against 145 inspections to be conducted, only 49 inspections were carried out by CMDA and no inspection was conducted during 2016. It was noticed that only minor violations like, documents without signature, revocation of planning permit not entered in planning permit register and variation in layout number and settlement deed were pointed out during the inspections conducted and the issues discussed in the preceding paragraphs were not addressed by CMDA.

CMDA stated (December 2018) that due to paucity of staff, there was shortfall in the conduct of inspection of local bodies which would be completed by forming special teams.

#### **2.4.11.4 Monitoring of unauthorised developments and unsafe buildings**

National Building Code of India defines unsafe buildings as those which are structurally and constructionally unsafe or insanitary or not provided with adequate means of egress or which constitute a fire hazard or are otherwise dangerous to human life or which in relation to existing use constitute a hazard to safety or health or public welfare by reason of inadequate maintenance, dilapidation or abandonment.

As directed (August 2006) by the Honourable High Court of Madras, a Monitoring Committee (MC) was constituted (November 2006) to oversee the action to be taken on unauthorised constructions. Based on the directions issued (November 2011) by the MC, DF&RS conducted (November 2011) a survey on the fire safety of the individual buildings in Thiyagaraya Nagar within GCC limits and their fitness to function as commercial establishments, from the point of view of fire safety. Audit observed that no enforcement action was initiated on the unauthorised/unsafe constructions based on the

report due to stay orders issued by the Hon'ble High Court of Madras. Subsequently, the Hon'ble High Court of Madras directed (October 2014) the DF&RS to conduct a survey specifically for 11 commercial buildings located in that area. Accordingly, the DF&RS submitted (March 2015) the survey report to the High Court, which indicated deficiencies in respect of fire safety in the stated buildings. Meanwhile, in May 2017, two out of the above eleven buildings were demolished due to fire accident. Further, another survey of DF&RS carried out (July 2017) on 45 buildings<sup>101</sup> in the same area indicated violations as given in **Table 2.38**.

**Table 2.38: Details of violations noticed during survey**

Parameter evaluated	Buildings which satisfied the requirement	Buildings which did not satisfy the requirement
FSI	16	29
Setback	0	45
Staircase	14	31
Underground water tank	11	34
Fire extinguishers	9	36
Fire pump	8	37

(Source: Survey report of DF&RS)

As observed from **Table 2.38**, all the 45 buildings did not comply with the setback<sup>102</sup> norms specified in DR as below:

- 21 Buildings did not have setback on all the four sides,
- five buildings had no setback on three sides, one building had no setback on two sides and five buildings had no setback on one side,
- nine buildings had set back on all the four sides lesser than the required width of which clear space was not available due to obstructions viz., presence of concrete structures, transformers, generator sets in seven buildings and
- setback was less than the minimum required width in all the four SBs.

Absence/shortfall in setback space would hamper easy movement and operation of aerial ladder platform vehicle of fire and rescue services during emergency.

Further, 29 out of the 45 buildings were constructed with FSI ranging from 3.6 to 10 against the maximum permissible FSI of 3.5. Construction of buildings over and above the permissible FSI leads to strain on the infrastructure of local bodies.

<sup>101</sup> Multi-storeyed buildings (41) and Special buildings (4).

<sup>102</sup> Open space around the building in a plot.

DF&RS submitted (August 2017) the survey report to Home Department, H&UD Department and CMDA to take necessary action against the buildings for non-compliance with fire safety norms. H&UD Department, however stated (June 2018) that communication from Home Department was awaited to initiate follow up action. Thus, lack of co-ordination between the departments of GoTN resulted in unauthorised developments causing threat to public safety in the event of emergencies, such as fire and stampede.

CMDA stated (December 2018) that a decision was taken to constitute a Task Force to develop a mechanism for detection of unauthorised construction and action to be taken on them. Even after the occurrence of a major fire accident during the year 2017, the decision to constitute a Special Task Force was taken after a delay of 20 months indicating that the Government had not given adequate importance to adherence to fire safety norms.

#### **2.4.11.5 Issue of planning permission after completion/commencement of construction**

As per Section 47 of the Tamil Nadu Town and Country Planning Act, 1971, (Act), 'After the coming into operation of any development plan in any area, no person other than any State Government or the Central Government or any local authority shall use or cause to be used any land or carry out any development in that area otherwise than in conformity with such development plan'. As per Section 56 of the above Act, if any development of land or building was carried out without permission, the appropriate authority after giving due notice, was required to take action to restore the land to its condition before the said development.

Further, as per DR 3(1), no person shall carry out any development including sub-division/layout or reconstitution or amalgamation of land without written permission of the Authority or such other Executive Authority of Local Body or Agency or Person to whom this power has been delegated by the Authority. Audit, however, noticed from the inspection reports of CMDA that the applicants (**Appendix 2.30**) had completed or partially completed the construction as on the date of issue of planning permission.

As per Building Rules of local bodies concerned, local bodies should ensure the structural stability of the building. Audit observed that, of the above, five buildings were large constructions having dwelling units in thousands. The buildings were completed or commenced prior to obtaining of planning permission and building licence. This indicates that the local bodies failed to monitor the above developments as envisaged in the Act.

During the Exit Conference, CMDA stated that planning permission can be issued for the constructions commenced or completed if the building plan does not violate the norms of DR and also that penalty shall be levied over and above the normally payable penalty. The reply is not tenable as the Act and DR did not permit issue of planning permission for constructions completed or partially completed and also levy of penalty has not been stipulated for such violations.

#### 2.4.11.6 Unauthorised/deviated constructions in Coastal Regulation Zone

Developments in coastal areas are regulated with reference to Coastal Regulation Zone (CRZ) area classifications such as CRZ-I, CRZ-II, CRZ-III and CRZ-IV based on the developments in the area along the shore as notified by GoI from time to time under Section 3 of the Environment (Protection) Act, 1986. CRZ-III zone is a relatively undisturbed area, and which is not substantially built up, where area upto 200 metres from High Tide Line is to be earmarked as no development zone. CRZ-II zone are areas that have already been developed upto or close to the shoreline.

As directed (September 2017) by the Honourable High Court of Madras on a writ petition filed on the violations/unauthorised construction of buildings in CRZ, a survey on unauthorised/deviated constructions (especially bungalows, resorts, guest houses, palatial houses and farm houses) was carried out and completed (June 2018) in four<sup>103</sup> villages along the coastal areas by the officials of CMDA and GCC. Notices were issued (January to April 2018) by GCC for 798 buildings. Only 48 owners responded with documents as called for in the notice. Scrutiny of the documents by GCC revealed that 31 buildings were constructed without approval from the appropriate authority and 17 buildings were constructed by deviating from the approved plan. Thus, all 48 buildings were in violation of statutory requirement. The remaining 750 owners did not respond to the notice.

Meanwhile, a draft CRZ Notification, 2018 was published (April 2018) by Ministry of Environment, Forest and Climate Change, GoI for stakeholders' remarks and CMDA remarked (May 2018) that a proposal was already addressed to the Director of Environment to reclassify the three villages<sup>104</sup> as CRZ-II under draft CRZ Notification, 2011 and there were presently no villages falling under CRZ-III within Ch.MA i.e., after receipt of concurrence from the Director of Environment on reclassification. The remarks of CMDA clearly indicate that reclassification of the above areas from CRZ-III to CRZ-II was at the draft stage (CRZ Notification, 2011) and not approved by Government of India. The fact remains that all the three villages continued to remain in CRZ-III with unauthorised developments mushrooming in violation of coastal regulations. This area has witnessed phenomenal development and GCC failed to initiate action against rampant violations of the law to safeguard the CRZ norms. Further, even the action initiated to reclassify the areas was to regularise violations.

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<sup>103</sup> Injambakkam, Sholinganallur and Uthandi falling under CRZ-III and Neelangerai falling under CRZ-II.

<sup>104</sup> Injambakkam, Sholinganallur and Uthandi.

#### **2.4.11.7 Complaints and grievances redressal mechanism**

One of the objectives of CMDA was to respond to all grievance and complaint petitions and addressing them with a timeline of 30 working days in respect of SBs and MSBs. Complaints received in respect of ordinary buildings and other deviated/unauthorised constructions were forwarded to the local body concerned for taking action. The details like petitioner's name, address and complaint location are captured in "Enforcement Cell Action" workflow software.

Audit observed that out of 2,264 complaints during 2013-18, details of which were captured in the database, 2,247 complaints related to local bodies and CMDA had to forward the same to local bodies for taking action within 30 days. Delay was, however, noticed in capturing stage itself in 2,257 cases and the delay ranged from 2 to 1,669 days. Further, while 227 complaints were forwarded in time, 1,504 complaints were forwarded to the local bodies concerned with a delay ranging from 31 to 1,512 days and 516 complaints were not forwarded to the local bodies as of September 2018.

Further, the software used by CMDA did not provide fields for capturing vital information *viz.*, detailed description of complaint and follow-up action taken on the complaints.

The implementation of monitoring mechanism in redressal of complaint and grievance petitions was not effective in CMDA due to poor planning in development of software, incomplete data capturing and delay in forwarding complaint to local bodies for follow-up action.

During the Exit Conference, CMDA stated that system developed for Enforcement Cell complaint/grievance redressal mechanism would be implemented shortly.

#### **2.4.11.8 Discharge of devolved function relating to planning permission**

The function of 'Urban planning including town planning' though devolved to the urban local bodies, is restricted to according planning permissions for ordinary buildings. As regards buildings other than ordinary buildings, CMDA, which is under the jurisdiction of the State Government, accords planning permission within Ch.MA by collecting the Development Charges and OSR Charges as fixed by the Government. Seventy five *per cent* of these charges are to be transferred to the respective local bodies. During the audit period of 2013-18, it was, however, observed that, CMDA had transferred only 54 *per cent* and 56 *per cent* of the above respective charges to the local bodies. To carry out the devolved function, the local bodies are empowered to recruit staff, the appointments of which are controlled by the orders of Government.

Though the local bodies have their own revenue, major part of the resource base is in the form of State/Central Finance Commission grants, other grants from GoTN/GoI and assigned revenue. The devolved function stated above does not confer powers to the local bodies to carry out the activities independently.



#### **2.4.12 System to detect and prevent errors/omissions**

The errors/omissions pointed out are on the basis of a test audit. The Department/Government may, therefore, undertake a thorough review of all units to check whether similar errors/omissions have taken place elsewhere, and if so, to rectify them; and to put a system in place that would prevent such errors/omissions.

#### **2.4.13 Conclusion**

The Performance Audit revealed deficiencies in issue of planning permissions and monitoring. There was absence of co-ordination in identifying and controlling unauthorised constructions between the Revenue and the Town Planning wings of the local bodies and between the local bodies and the Chennai Metropolitan Development Authority. Local bodies and Chennai Metropolitan Development Authority did not explore the options for creation of green cover within Chennai Metropolitan Area despite availability of funds. Inclusion of plot area gifted for road widening and provision of link road to open space reserve for calculation of Floor Space Index resulted in short assessment of Premium Floor Space Index charges. Provision of inadequate parking facilities was in violation of specified parameters. Planning permissions were issued after completion/commencement of construction. Enforcement Cell was not strengthened to mitigate/control the deviated/unauthorised buildings.

#### **2.4.14 Recommendations**

Government of Tamil Nadu may consider the following:

- System of sharing of data relating to property tax assessment and planning permission between Chennai Metropolitan Development Authority and local bodies may be institutionalised to monitor and control unauthorised development.
- Physical constraints leading to collection of charges in lieu of Open Space Reservation may be documented and open space area may be created wherever possible.
- Enforcement Cell may be established in local bodies for monitoring and controlling unauthorised developments, besides strengthening of Enforcement Cell in Chennai Metropolitan Development Authority.

The matter was referred to Government in November 2018; reply has not been received (January 2020).