CHAPTER II: ECONOMIC SECTOR

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2.1 Introduction

This Chapter of the Audit Report for the year ended 31 March 2015 deals with the findings of audit on the State Government units under Economic Sector.

The names of the State Government departments and the total budget allocation and expenditure of the State Government under Economic Sector during the year 2014-15 are given in the table below:

Table No. 2.1.1

(₹in crore)

Name of the Departments	Total Budget Allocation	Expenditure
Agriculture Department	318.68	200.73
Animal Resource Development Department	64.74	60.41
Co-operation Department	25.31	22.38
Fisheries Department	43.85	33.68
Forest Department	114.29	85.91
Horticulture Department	86.54	60.48
Industries and Commerce (Handloom, Handicrafts and Sericulture) Department	33.72	27.35
Industries and Commerce Department	64.46	58.66
Information, Cultural Affairs and Tourism Department	26.31	24.93
Information Technology Department	19.48	13.93
Power Department	115.78	100.02
Public Works (Roads and Buildings) Department	871.70	737.80
Public Works (Water Resource) Department	178.85	92.25
Science Technology and Environment Department	8.45	7.68
Total number of Departments = 14	**1972.16**	**1526.21**

Source: Appropriation Accounts – 2014-15.

2.2 Planning and conduct of Audit

Audit process starts with the assessment of risks faced by various departments of Government based on expenditure incurred, criticality/complexity of activities, level of delegated financial powers, assessment of overall internal controls, etc.

After completion of audit of each unit, Inspection Reports containing audit findings are issued to the heads of the departments. The departments are requested to furnish replies to the audit findings within one month of receipt of the Inspection Reports. Whenever replies are received, audit findings are either settled or further action for compliance is advised. The important audit observations arising out of those Inspection Reports are processed for inclusion in the Audit Reports, which are submitted to the Governor of the State under Article 151 of the Constitution of India for being laid in the State Legislature.

The audits were conducted during 2014-15 involving test-check of an expenditure of ₹ 1,505.15 crore (including expenditure pertaining to the previous years audited during the year) of the State Government under Economic Sector. This Sector contains two Performance Audits on "Functioning of Industrial Training Institutes in

Tripura" relating to the Industries & Commerce Department and "Effectiveness in the functioning of State Pollution Control Board" relating to the Science, Technology & Environment Department and six Compliance Audit paragraphs.

INDUSTRIES AND COMMERCE DEPARTMENT

2.3 Functioning of Industrial Training Institutes in Tripura

The main objective of Industrial Training Institutes (ITIs) is to ensure a steady flow of skilled workers in different trades who can serve the industry. ITIs impart industrial training mainly to the less privileged, poor and downtrodden school-leaving youth so that they acquire technical skills for gainful employment. In view of the importance being accorded mainly to skill development, performance audit of the functioning of ITIs was conducted for the State of Tripura which revealed slow progress on setting up of ITIs in the uncovered Sub-Divisions of the State, lack of infrastructure facilities such as lack of availability of tools and equipment in test-checked ITIs, deficient system of procurement of equipment, lack of hostel facility for the girl trainees, poor placement of ITI passed candidates under the Apprenticeship Training Scheme in industries and shortage of qualified trainers. All of these adversely affected overall functioning of the ITIs.

Highlights:

The Government targeted (May 2010) setting up of ten new ITIs in the Sub-Divisions where there was no ITI. However, only three ITIs could be set up during the last 5 years.

(Paragraph 2.3.6.1)

Test checked ITIs lacked adequate infrastructure facilities such as tools & equipment, furniture, etc. No hostel facilities were available for the girl trainees in the test checked ITIs.

{Paragraphs 2.3.9(b)(i) and 2.3.9(b)(v)}

Procurement system was deficient in many ways. There were instances where the suppliers dictated the specification of the supplied articles. Manufactures' warranty papers were not available against the test checked articles valued ₹ 8.01 crore.

{Paragraph 2.3.9(a)(iii)}

Procurement of tools & equipment and furniture valuing ₹ 18.08 crore was made without preparation of cost estimates.

{Paragraph 2.3.9(a)(vii)}

Absence of provision of adequate training grant resulted in short supply of raw material to the trainees. Shortfall ranged from 01 to 56 *per cent* in the test checked ITIs.

{Paragraph 2.3.9(b)(iii)}

Failure on the part of the Government to identify adequate number of seats in the industries and institutions led to inadequate placement and back log of passed out trainees for apprenticeship training.

(Paragraph 2.3.10.1)

Inspection of ITIs at regular interval was not done by the Department and annual physical verification of stores and stock was not carried out.

(Paragraph 2.3.11&2.3.12)

2.3.1 Introduction

Industry is always in need of skilled manpower for production, manufacturing and the nation requires growth of the economy to prosper. In order to provide a steady flow of skilled workers in different trades to the industry, Government of India (GOI) introduced (1950) a scheme called the Craftsmen Training Scheme (CTS). Under CTS, Industrial Training Institutes were established in various States/Union Territories to upgrade the skills of craftsmen.

The main objectives of ITIs were to ensure a steady flow of skilled workers to the industry to meet the manpower requirements in different trades; introduce new courses in emerging areas of industrial production and create self-sustaining courses; impart training to the less privileged, downtrodden and early school leavers to acquire technical skills for gainful employment; provide technical training opportunities to women in the field of electronics and information technology for gainful employment and establish a close interaction with the industries on issues relating to exchange of technical knowledge and experience for the mutual benefit of the institutes and the industry.

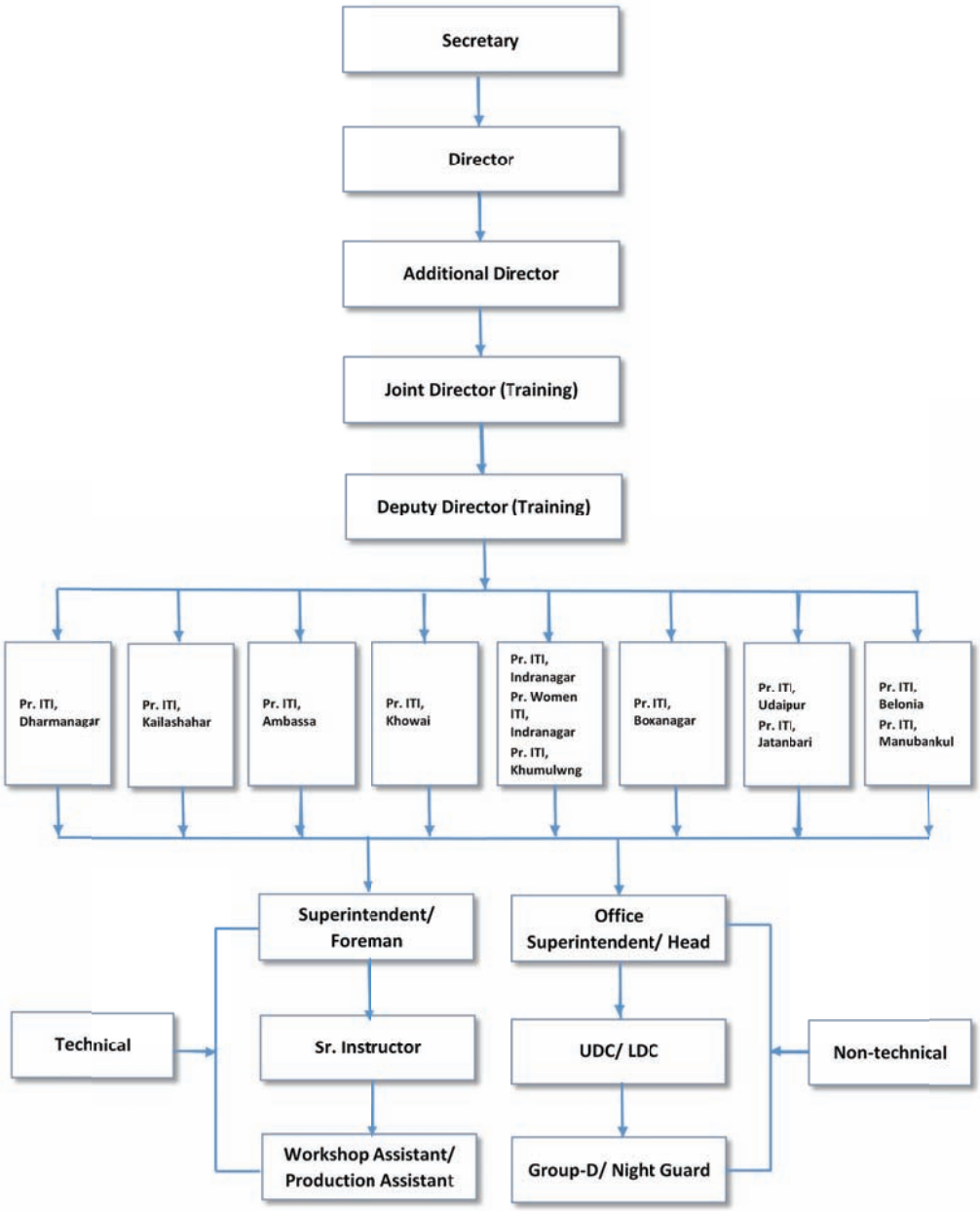
In Tripura, there are 12 ITIs with a total intake capacity of 2,087 seats in the Government sector and one Government-aided ITI in the private sector under Ramkrishna Mission[1] with a seat capacity of 146 (as of March 2015).

2.3.2 Organisational structure

The Principal Secretary/Secretary to the Government of Tripura, Industries and Commerce Department is the administrative head of the ITIs who is assisted by the Director, Industries and Commerce, one Additional Director, one Joint Director (Training) and one Deputy Director (Training) at the Directorate level. The private ITI is headed by the Secretary, Tripura unit of Ramkrishna Mission. Each[2] ITI is headed by a Principal who in turn is assisted by the Vocational Instructors. The Principal is the in-charge of ITI and the Vocational Instructors impart training to the trainees in the respective trades. The organisational chart is given below:

[1] An organisation which aims at harmony of religions and peace for all humanity, without any distinctions of creed, caste, race or nationality with its Headquarters at Belurmath, West Bengal.

[2] Government Sector as well as Private Sector



2.3.3 Scope of Audit and Audit Methodology

The Performance Audit on the working of ITIs was conducted (April - July 2015) covering the period from 2010-11 to 2014-15 by sample-check of records in nine out of 13 ITIs. Records of the Directorate of Industries and Commerce, Government of Tripura were also test checked. The ITIs were selected[3] on Stratified Random Sampling Without Replacement (SRSWR) method. The audit

[3] ITI, Indranagar and the Women ITI, Indranagar were selected being the ITIs in the Capital District and the only ITI for women. Other ITIs were stratified into Groups according to the number of trades available with the ITIs and selected with Random Sampling Method. One ITI was selected from the ITIs with 4 Trades (Boxanagar), 2 ITIs were selected from the list of ITIs with trades upto 9 (Ambasa and Dharmanagar) and two ITIs with more than 9 trades were selected on judgemental sampling (Jatanbari and Kailashahar). ITI, Ramkrishna Mission was selected being the only Private ITI in the State while ITI, Khumulwng was selected because of substantial expenditure in MMV Trade.

objectives, criteria, scope of audit and methodology were discussed with the Secretary, Industries & Commerce Department, Government of Tripura in an Entry Conference held on 20 April 2015. The Audit findings were also discussed with the Secretary to the Government of Tripura, Industries & Commerce Department in the Exit Conference held on 02.11.2015. Replies of the Government have been incorporated in the report wherever appropriate.

2.3.4 Audit Objective

The objectives of the performance audit were to ascertain whether:

- skill development training programmes and sponsored activities were as per the latest industrial/market requirement and technology;
- budgetary control and financial management are adequate and effective and the funds were utilised properly;
- adequate and qualified manpower was available in ITIs;
- required infrastructure was available with the ITIs for imparting high quality training;
- the requirement of the industry was met through a steady flow of skilled man power in different trades;

2.3.5 Audit Criteria

The criteria for the Performance Audit were obtained from the following sources:

- Training Manual for Industrial Training Institutes prescribed by the Director General of Employment and Training (DGE&T);
- GOI/State Government orders on imparting industrial training to trainees;
- Norms prescribed by the National Council for Vocational Training (NCVT);
- The Apprentices Act, 1961 and
- Prescribed monitoring and evaluation mechanism.

Audit Objective 1: Whether latest industrial/market requirement have been considered before developing the programme.

Audit Findings

2.3.6 Planning

2.3.6.1 Absence of planning and shortfall in opening of new ITIs

Department neither prepared perspective plan nor annual plan for the ITIs in the State in general and the test-checked ITIs in specific.In the Eleventh Five Year Plan (2007-12), thrust was given for creation of a pool of skilled personnel in appropriate numbers in line with the requirement of the ultimate users such as industry, trade and service sectors. Accordingly, action plan for up- gradation of existing ITIs as well as setting up of new ITIs was proposed. Keeping in line with the Eleventh Five Year Plan strategy, the Government of Tripura planned (May 2010) to set up at least one ITI in each sub-division of the State.

Accordingly, ten (10) uncovered sub-divisions were identified for setting up of new ITIs. Rural Development (RD) Department was entrusted with the responsibility of civil construction work and the works were to be completed within 18 months.

Audit noticed that out of the targeted 10, only three ITIs[4] started functioning from 2013-14, while construction work in respect of four ITIs[5] was in progress as of March 2015. Construction work for the remaining three ITIs[6] had not been taken up. Delay in implementation of the proposed new ITIs deprived the unskilled workforce of the adjoining areas to have employment opportunities, acquiring technical knowledge and skills as envisaged in the Government plan.

Government stated (November 2015) that the plan for setting up of 10 new ITIs in State was taken up following the decision (July 2009) of the Ministry of Labour & Employment, Government of India for setting up of one ITI in each uncovered Block in the country. However, the proposed scheme did not materialise due to non- identification of specific schemes for financial tie-up. Required funds were arranged by the State Government from Special Central Assistance (SCA), State Plan Assistance (SPA), Non-Lapsable Central Pool of Resources (NLCPR), etc. which resulted in delay in implementation of the programme.

2.3.6.2 Status of construction of four new ITIs

It was noticed that the Department of Industries and Commerce allocated funds to the Rural Development (RD) Department, Government of Tripura for construction of the four new ITIs in April 2013. Though the construction of the ITIs were to be completed within 18 months, these had not been completed and handed-over (November 2015). Status of construction is shown below:

Table No.2.3.1: Status of construction of four new ITIs

(₹in lakh)

Sl. No.	Name of the ITI	Component of work:	Estt. cost	Funds placed	Upto date expenditure	Status of construction
1.	ITI, Bishramganj	Academic Building, Workshop and Hostel	524.39	506.00	Not available with the Department	Construction completed, ready for handing over.
2.	ITI, Teliamura	-do-	626.91	592.00	-do-	-do-
3.	ITI, Kamalpur	-do-	520.87	526.16	-do-	-do-
4.	ITI, LT Valley	-do-	528.50	496.00	-do-	-do-
Total			**2200.67**	**2120.16**	**-do-**	

Source: Departmental reply

Though ₹ 2,120 lakh was placed with the RD Department, the upto date financial progress was not available with the Department which indicated lack of monitoring on financial progress of the work.

[4] Boxanagar, Khowai and Manubankul.
[5] Bishramganj, Kamalpur, LT Valley and Teliamura.
[6] Gandacherra, Kanchanpur and Santirbazar.

Government Stated (November 2015) that DGE&T increased the space norms for the trades and other computer labs, additional drawing hall, class rooms, etc. after the constructions were taken up which required reconstruction, reorientation and additional works to suit the requirements of the Ministry and resulted in delay in completion of the ITI buildings.

As regards the status of financial progress it was stated that the Department had no mechanism to verify the financial progress as measurement of works completed against the estimated cost was to be verified.

But the fact remained that ITIs scheduled to be completed in September 2014 had not been handed over till November 2015 due to lack of planning at the initial stage and the physical as well as the financial progress was not being monitored by the Department.

2.3.6.3 Selection of trades for the ITIs

Tripura being an industrially backward State the trades for the ITIs were selected in consideration of employability scope and demand in the domestic market. Scrutiny of the selection process of the trades of the upcoming four[7] ITIs and four[8] ITIs which came up during the audit period revealed that trades were selected *inter-alia* on the basis of the demand of the existing trades in other ITIs, types of trades available in other ITIs, target group of trainees and demographic profile of the State and Skill Gap Study. The selected trades were Information and Communication Technology System Maintenance, Electronics Mechanic, Mason, Building Maintenance, Driver-cum-Mechanic, Gold Smith, Welder, Pump Operator, etc. keeping in view the employability in the domestic market.

2.3.6.4 Introduction of new courses in the ITIs

In order to ensure a steady flow of skilled workforce, which was one of the objectives of the craftsmen training scheme, the Department was to introduce new courses in the emerging areas of fast changing industrial environment by conducting skill assessment survey. A decision was taken in the review meeting held in May 2010 taken by the Chief Minister to conduct survey with the help of Confederation of Indian Industries (CII) and representatives of local industries to make realistic assessment of demand of various trades. However, report of the committee could not be made available to audit. It was noticed that except for creation of Center of Excellence on automobile sector, information technology, bamboo product sector, etc. no new courses had been introduced in the existing ITIs under Craftsman Training Scheme during the period covered in Audit. It was also noticed that though 2[9] trades were not running in the ITI, Indranagar (Boys)[10] since 2009-10, no new trades were introduced to replace the non-functional trades.

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[7] Bisramganj, Teliamura, Kamalpur and Manu
[8] Boxanagar, Khowai, Khumulwng and Manubankul
[9] Radio and TV Mechanic and Mechanic Diesel Engines
[10] The oldest ITI in the State set up in the year 1959.

Government replied (November 2015) that Centre of Excellence (CoE) courses were introduced in 7 ITIs in the State which were itself specialised modular courses comprising of 6 Broad Based Basic Training (BBBT) modules with 3 additional Advanced modules in the popular sectors like Automobile, Bamboo, Electronics, Electricals, Food Processing and Information Technology. It was further stated that 2 existing trades of Mechanic Motor Vehicle (MMV) and Mechanic Diesel became redundant because of introduction of CoE courses in Automobile Sector in ITI, Indranagar (Boys).

As regards introduction of new courses in the existing ITIs it was stated that new trades were introduced in the newly opened four ITIs[11]

Audit Objective-2: Whether budgetary control and financial management were adequate and effective

2.3.7 Allocation and expenditure

The details of budget estimates, revised estimates, allocation of funds, actual expenditure and savings/excess during 2010-11 to 2014-15 are given in the table and chart below:

Table No. 2.3.2: Year-wise actual expenditure and savings/excess

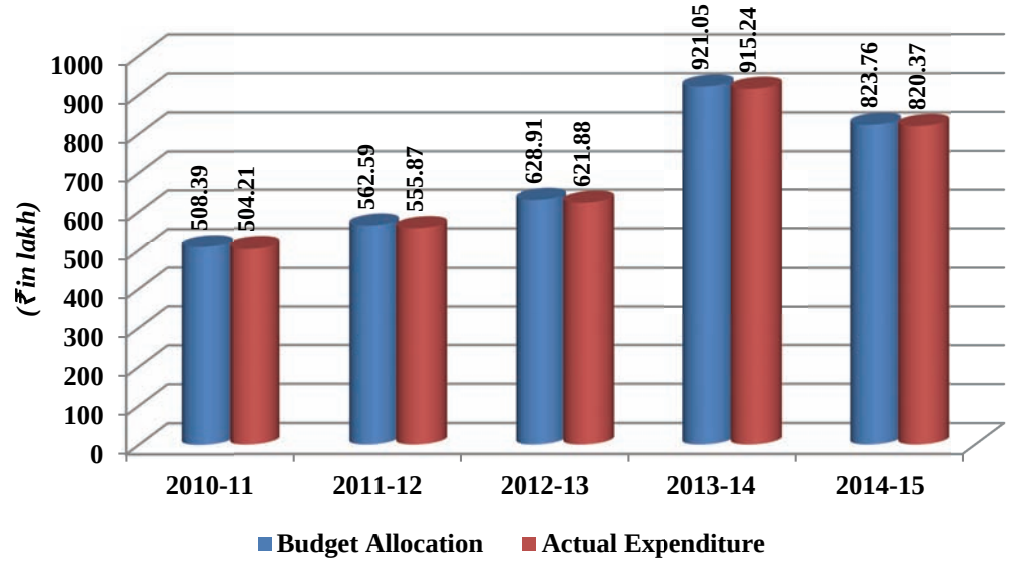
(₹ in lakh)

Sl. No.	Year	Budget Estimates (BE)	Revised Estimates (RE)	Percentage of variation w.r.t BE	Budgetary allocation	Actual expenditure	Savings(+)/ Excess (-)	Percentage of savings/ excess with budgetary allocation
1.	2010-11	444.70	460.14	3	518.39	504.21	(+) 14.18	3
2.	2011-12	344.23	392.95	12	562.59	555.87	(+) 6.72	1
3.	2012-13	414.95	622.87	50	628.91	621.88	(+) 7.03	1
4.	2013-14	911.57	1,267.05	28	921.05	915.24	(+) 5.81	1
5.	2014-15	1,027.29	845.03	17	823.76	820.37	(+) 3.39	0
Total		**3,142.74**	**3,588.04**	**14**	**3,454.70**	**3,417.57**	**(+) 37.13**	**1**

Source: Budget Document, Government of Tripura and Departmental Reply.

[11] Boxanagar, Khowai, Khumulwng and Manubankul

Chart No.2.3.1: Budget Allocation and Actual Expenditure



The budgetary allocation for the ITIs increased from ₹ 518.39 lakh during 2010-11 to ₹ 628.91 lakh in 2012-13 recording a modest growth of 10 *per cent*. Sudden rise in allocation of ₹ 921.05 lakh during 2013-14 from ₹ 628.91 lakh in the previous year was due to opening of four new ITIs in the State. A marginal savings ranging from 0 to 3 *per cent* over the allocation during last five years indicated maximum utilisation of funds by the ITIs.

Demand and allocation of funds to the test checked ITIs were also analysed in audit. Failure in assessment of requirement and demand for funds led to short[12] placement of funds for consumables-cum-training grants in four[13] test checked ITIs while no demand for funds was placed by the ITIs[14] for library books and recreation facility.

Government stated (November 2015) that proper allocation of funds and maximum utilisation had been ensured.

Audit Objective 3: Whether adequate and qualified manpower was available in ITIs

2.3.8 Shortage of manpower

DGE&T had prescribed a specific scale of technical staff admissible for ITIs. The number of posts admissible for an ITI depends upon the intake capacity of the Institute and the number of units[15] in various trades imparted in the ITI. The State Government sanctioned technical posts for ITIs, based on the above. Shortage of qualified teaching staff in the ITIs is shown below:

[12] Reference to **Para. 2.3.9(b)(iii)** of this report.
[13] Dharmanagar, Indranagar (Boys), Women ITI, Indranagar and Kailashahar.
[14] Reference to **Para. 2.3.9(b)(vi)** and **Para. 2.3.9(b)(vii)** of this report.
[15] Unit: A batch of 16 trainees in each trade.

Table No. 2.3.3: Shortage of qualified teaching staff

Sl. No.	Name of the ITI	No. of trades/ CoE modules available	Shortage existing in no. of trades	Name of the trade	Name of the post	Appointment of non-qualified staff in place of qualified staff	Required qualification	Possessed qualification
1.	Ambassa	8	1	Draughtsman Civil	Sr. Instructor	1	Deg./Dip. in Civil Engg.	BE in Mechanical Engg.
2.	Dharmanagar	8	1	Sanitary Hardware and Fitter	do	1	Deg./Dip. in Civil/Architectural Engg.	BE in Mechanical Engg.
3.	Indranagar (Boys)	19	1	Automobile Sector (CoE)	do	1	Deg./Dip. in Mechanical Engg.	Dip. in Electronics and Telecommunication Engineering
4	Khumulwng	6	1	Cane,Willow and Bamboo	do	1	i) Deg./Dip. in relevant Trade	i) Deg. in Mechanical Engg.
Total		**41**	**4**			**4**		

Source: Departmental records

Audit noticed that out of the 41 trades/modules of CoEs in the test checked ITIs, there was shortage of qualified instructors in 4 trades. It was also noticed that the shortage was met by non-qualified instructors. Shortage of qualified teaching instructor in the respective trades adversely affected the teaching to the trainees.

Government stated (November 2015) that recruited instructors sometimes resigned for taking up of better employment opportunities which creates vacancies and stop-gap arrangements were made from available instructors of similar branch since filling up of the vacancies required time.

Reply of the Government is not tenable as audit scrutiny revealed that all the above ineligible candidates were recruited on regular employment and were discharging their duties on regular basis.

2.3.8.1 Training of trainers

The success and sustainability of any training system depends upon, *inter alia*, availability of good and trained instructors. A new modular pattern of Craft Instructors Training in Engineering trades (December 2008) and Non-Engineering trades (August 2010) was evolved by DGE&T. The training was to be conducted in four[16]/three[17] modules, each having three/four months duration replacing the conventional one year training. The Craft Instructor Certificate was to be awarded only after successful completion of all the modules within a period of three years. As per DGE&T instructions (September 2010), all the existing vocational instructors should be trained in all the modules within a period of three years. After three

[16] i) Training methodology, (ii) Engineering Technology, (iii) Trade Technology - I and (iv) Trade Technology - II

[17] (i) Training methodology (including soft skills), (ii) Trade skill I and (iii) Trade Skill-II

years, there would be no untrained instructors for the already affiliated trades/branches in the Institutes.

Audit noticed that 81 *per cent* of the available trainers (instructors) were not sent for any training programme during the period covered in audit as shown in **Table No. 2.3.4**:

Table No. 2.3.4: Training of trainers

Sl. No.	Name of the ITI	No of faculty available	Number of faculty sent for training of trainers Course	No of faculty awaiting training	Percentage of trainers who attended no training during last five years
1.	Ambassa	8	3	5	63
2.	Boxanagar	9	0	9	100
3.	Dharmanagar	18	3	15	83
4.	Indranagar (Boys)	22	10	12	55
5.	Indranagar (Women's)	15	2	13	87
6.	Jatanbari	16	1	15	94
7.	Kailashahar	12	1	11	92
8.	Khumulwng	15	3	12	80
9.	Ramkrishna Mission	6	0	6	100
Total		**121**	**23**	**98**	**81**

Source: Departmental record

It would be seen that out of 121 faculty in the 9 ITIs, only 23 were sent for training. This indicated that a large section of trainers were not acquainted with latest technological development in the industrial sector.

While admitting the fact that training of trainers in Craft Instructor Training Scheme (CITS) was necessary for effective training to the trainees, Government stated (November 2015) that while sending the instructors for undergoing training it was ensured that ongoing training programmes at the respective ITIs were not hampered since most of the training institutes were located outside the State. It was also added that most of the instructors were newly recruited and the Department was in the process of identification of corresponding training institutes.

Audit Objective 4: Whether required infrastructure was available for imparting high quality training.

2.3.9 Deficiencies in infrastructure

The National Council for Vocational Training (NCVT) prescribed specific norms for providing basic infrastructure such as classrooms and workshops. To impart training in ITIs, the space for conducting various trades, power supply, tools & equipment and furniture was to be provided as per NCVT norms.

Availability of adequate infrastructure was analysed in audit in two segments *viz*; (i) procurement of tools & equipment and furniture and (ii) availability of infrastructure and its optimum utilisation by the Department.

2.3.9(a) Procurement of tools & equipment and furniture

For procurement of tools & equipment, furniture, etc. the Department followed General Financial Rules while World Bank's Procurement Management guidelines were followed for procurement under World Bank assisted Vocational Training Improvement Project (VTIP). Audit findings are narrated below:

(i) Central Tendering System

Unlike the tendering procedure followed in other Departments like State PWD, etc. the Industries and Commerce Department followed centralised tendering system where invitation of tender, finalisation, issue of supply orders, etc. were done by the Directorate itself while receipt of material and payment were made by the respective ITIs. As a result, basic documents like NIT, Bid documents submitted by the respective bidders were not available with the test checked ITIs. Original copies of supply orders were also not available with the ITIs. Payments were made without basic Tender documents which paved the way for committing irregularities by the suppliers as discussed in the succeeding paragraphs.

Government stated (November 2015) that the system of centralised tendering was followed for the newly created ITIs where no adequate mechanism was available for invitation of tenders by the respective Institutes while tendering for procurement of existing ITIs for Centre of Excellence (CoE) was done centrally for administrative convenience for scrutiny of tender papers, evaluation of tenders under the supervision of the Directorate and accepted that receipt of goods and release of payment were done by the respective ITIs while the tender related papers were retained at the Directorate for review audit by the funding authority i.e Central Government.

Reply of the Government substantiated the audit contention that tender related papers were not available with the ITIs which made payment to the contractors without having the basic documents relating to the terms and conditions of the tender. Further, Department's contention for retention of tender related papers at the Directorate for review audit by the Central Government was not tenable as audit of Scheme funds remained incomplete without audit of receipt of goods & services and related payments which were made by the ITIs at different locations.

(ii) Deficiency in the tendering system and existence of a detrimental tenderclause

Audit noticed that the Department was inviting tenders with the conventional tendering system. It was also noticed that though the Department had been floating the Tenders in the Websites (State Government and the Government of India) but provision for downloading the 'Tender Form' from the Websites and submission of Bids with the cost of Tender Form was not available in the tender notices, selling of Tender Form was done from the Directorate Office at Agartala only which would have hindered the interested suppliers from outside the State. Audit also noticed that only two suppliers bagged all the supply orders, barring one or two marginal supply

orders by other bidders in the absence of good number of interested bidders. The details thereof are given in the table below:

Table No. 2.3.5: Analysis of tenders for procurement of tools & equipment and furniture for the ITIs

(in ₹)

Sl. No.	Name of the ITI	Tenders invited for number of trades	Tender settled with a single bid			Tender settled with only 2 bidders		
			No of cases	Name of the bidder	Amount of supply order issued	No of cases	Name of the bidder	Amount of supply order issued
1.	Ambassa	8	-	-	-	8	NCCF	2,06,52,325
							Music Assam	4,64,155
2.	Boxanagar	5	1	NCCF	29,69,865	4	NCCF	28,05,625
							EEAS	44,01,544
3.	Dharmanagar	10	-	-	-	10	NCCF	95,96,788
							EEAS	80,54,261
4.	Jatanbari	10	-	-	-	10	NCCF	75,44,095
							EEAS	1,59,19,479
5.	Kailashahar	10	3	NCCF	53,59,196	7	NCCF	1,71,88,354
							TFS	8,89,243
6.	Khowai	5	2	NCCF	51,24,905	3	NCCF	32,46,228
							EEAS	55,22,238
7.	Khumulwng	7	4	NCCF	88,28,099	3	NCCF	98,63,353
							EEAS	53,70,590
8.	Manubankul	5	1	NCCF	19,98,425	4	NCCF	1,28,28,200
							EEAS	59,04,579
9.	Ramkrishna Mission	3	-	-	-	3	NCCF	26,22,570
							EEAS	60,64,309
Total		**63**	**11**	**NCCF**	**2,42,80,490**	**52**	**NCCF**	**8,63,47,538**
							EEAS	**5,12,37,000**
							Music Assam	**4,64,155**
							TFS	**8,89,243**

Source: Departmental records.

It could be seen from the table that National Co-operative Consumers Federation (NCCF) of India Ltd., Guwahati got 11 supply orders for ₹ 2.43 crore without any second tenderer while 52 supply orders were shared between NCCF and M/s Engineering Elements and Allied Suppliers (EEAS), Agartala with marginal participation of Music Assam Ltd., Guwahati and TFS Tele System of Guwahati.

Analysis of Tender Conditions revealed that tender notice stipulated that "a bidder should quote for all the items of a trade as called for, in the Tender Notice without which the Bid would be liable for cancellation and the Bid would not be evaluated". Since all the items[18] required for a trade were not being manufactured by a particular manufacturer, this stipulation ensured that no manufacturer was able to take part in the Bid Procedure during the audit period of 2010-11 to 2014-15 though offers were invited from the reputed manufacturers/small scale industries. Only two major suppliers arranged the required tools and equipment, furniture and fulfilled the tender requirement. Again, a number of unspecified goods were supplied as revealed from audit of different ITIs which are narrated in the succeeding paragraph.

[18] Item number in a tender notice varied from 2 to 411 as noticed during audit.

Government stated (November 2015) that the Department had undertaken all procurements following the provision of the Delegation of Financial Power Rules, Tripura (DFPRT) and had already taken necessary steps for undertaking e-tendering and also added that no complaint had been received from any interested bidder facing any hindrance in the existing tendering process though mechanism of receipt of complaints and its disposal was not stated to audit.

As regards the tender clause for bidding of all the items in a tender, it was stated that the provision ensured participation of solvent and genuine suppliers in the tender process which provided timely supply of all the tendered items without going for repeated tenders.

Accepting the underlying reasons, it still remained that only two suppliers got the major supply orders over the years and supplied the tools and equipment to the ITIs.

As regards, award of 11 supply orders valuing ₹ 2.43 crore to NCCF without any second bidder it was sated that this was done following the provisions of the DFPRT 2011 but relevant provision was not quoted as the same could not be verified in audit.

(iii) Warranty documents against goods supplied

As per the tender conditions, the rates quoted by the supplier should be for brand new items[19] and the items costing above ₹ 5,000 (five thousand) should be supported with detailed technical specification/leaflet. Relevant documents in support of offered brand, model and make with specification of the items were also to be submitted with the bid documents. Audit noticed that except one bidder[20] no other bidders[21] complied with the above instructions. Models of the products and Brands were neither mentioned nor cross-referenced in the Price-bid. The tendered price of a product is always directly related to its Brand (Make) and the Model. In absence of these basic information it was not clear as to how the Tender Evaluation Committee compared the various offers, justified the offered price of a product and finalised the tender of the respective bidder. There was no mention of the bid evaluation criteria in the Evaluation Committee meeting proceedings. We conclude that all the successful firms were declared to have been qualified by the Committee for awarding contract though all of them violated the basic Tender Conditions.

Receipt of high value goods were test checked in audit. No ITI could submit manufactures' warranty papers in respect of the goods received from the suppliers. As a result, receipt of branded new goods along with the manufacturers' warranty certificate was not ensured. Table below would give the position at a glance:

[19] Tools and Equipment, Furniture etc.

[20] M/s Sunil Kumar Banik, Agartala, Authorised dealer of Godrej Company.

[21] i) M/s Engineering Elements and Allied Suppliers, Agartala, ii) M/s National Co-operative Consumers' Federation of India Ltd., Guwahati, iii) M/s Quality Tents, Agartala, iv) Music Assam, Guwahati and v) TFS Tele System, Guwahati.

Table No.2.3.6: Warranty papers against high value goods

Sl. No.	Name of the ITI	Number of high value goods test checked	Warranty papers not available	Amount paid *(in ₹)*	Average cost of test checked items
1.	Ambassa	102	102	96,23,011	94,343
2.	Boxanagar	47	47	32,15,867	68,423
3.	Dharmanagar	64	64	83,57,649	1,30,588
4.	Indranagar (Boys)	50	50	60,68,249	1,21,365
5.	Indranagar (Women's)	28	28	42,65,247	1,52,330
6.	Jatanbari	82	82	1,67,27,033	2,03,988
7.	Kailashahar	58	58	1,53,06,700	2,63,909
8.	Khumulwng	49	49	1,22,13,411	2,49,253
9.	Ramkrishna Mission	41	39	43,03,010	1,04,951
Total		**521**	**519**	**8,00,80,177**	**1,53,705**

Source: Departmental records and audit requisition and reply to audit observation.

It would be seen that out of 521 test checked items, warranty papers were not available in respect of 519 items whose average cost was ₹ 1.54 lakh while tender conditions stipulated that item costing above ₹ 5,000 should be supported by all relevant documents.

Government Stated (November 2015) that technical leaflet was only an additional support document. The reply was not tenable as scrutiny of the tender notice showed that it was a mandatory document for the bidder bidding for an item costing ₹ 5,000 or more. No reply was furnished regarding absence of 'Model No.' of the items, in the price bid, proposed to be supplied by the bidders.

As regards non-availability of manufacturers' warranty papers it was stated that goods were procured from the suppliers instead of manufacturers who were supposed to render the warranty services as per the clause of the tender notice. Contention of the Department was not tenable as without the product documentation and relevant papers from the manufacturer, supply of unused, brand-new goods by the suppliers as per the condition of the tender was not ensured.

(iv) Excess payment of ₹ 63.98 lakh in procurement for VTI Project

Department procured tools & equipment[22] and furniture for Vocational Training Improvement Programme (VTIP) under World Bank assistance in 6 Packages from Package No.1 to 6 during March 2014 for the ITI, Indranagar (Boys). The Department put the tools & equipment and furniture in 6 separate packages and invited tender for supply of the items in package as a whole though the option for evaluation of tender separately for each tendered item was available with the Department as per World Bank procurement policy. It was noticed that procurement of material in Packages led to excess payment of ₹ 63.98 lakh when compared to the offered rates of individual items within the package. The effective tender evaluation policy should have been the

[22] Tools and equipment required for running of trades under Craftsman Training Scheme.

lower cost either package as a whole or the cost of individual items offered by the bidders. The details are given in the table below:

Table No. 2.3.7: Cost difference between package cost and item rate cost

(in ₹)

Sl No	Package No.	Particulars of the package	Awarded cost of the package to a single bidder	Cost of the items in the package with the lowest offered rates from different bidders	Difference in cost
1.	Package No.-1	Tools and Equipment (Hand, Measuring Etc.)-414 items	31,74,971	15,39,816	16,35,155
2.	Package No.-2	Equipment and Machineries—19 Items	43,06,750	24,04,266	19,02,484
3.	Package No.-3	Electrical and Electronics Equipment and Machinery-112 Items	42,01,435	27,34,260	14,67,175
4.	Package No.-4	Computer, Peripherals and Softwares-43 Items	43,07,720	30,89,989	12,17,731
5.	Package No.-5	Furniture-47 Items	11,55,830	10,40,552	1,15,278
6.	Package No.-6	Automobile Equipment for Centre of Excellence-2 Items.	4,91,205	4,30,800	60,405
Total			**1,76,37,911**	**1,12,39,683**	**63,98,228**

Thus, the Department incurred ₹ 1.76 crore for procurement of tools & equipment and furniture under VTI Programme which could have been procured at ₹ 1.12 crore had the items under the package been distributed to different suppliers.

Government stated (November 2015) that grouping of similar items together in a package and procurement from the same supplier ensured compatibility of tools of equipment and machineries, etc. in addition to smooth and timely supply. Reply of the Government was not tenable as the list of tools and equipment where the issue of compatibility was considered at the time of procurement should have been prepared beforehand and got approved by the appropriate authority.

(v) Awarding of supply order on false credentials of the tenderer -₹ 43.07 lakh

For procurement of materials from the open market, the Department stipulated in the Tender Notice that the bidder concerned should have successfully completed at least one similar work (with total monetary value of not less than 50 *per cent* of the estimated cost put to tender) in the last 2 (two) years for a Government organisation. Audit noticed that M/s. Suniti Computer and Telecom, Jogendranagar, Agartala submitted false performance certificate of supplying computer peripherals to Agriculture Department, Government of Tripura and bagged a supply order for

₹ 43.07 lakh under VTI Programme during 2013-14. The Department accepted the performance certificate without verification and issued supply order to the firm.

Audit team visited the O/o Executive Engineer, West Division, Agriculture Department, Agartala and the O/o the Principal, College of Agriculture, Government of Tripura, Lembucherra and verified the Supply Order Register and Cash Book in the office of the former for verification of the issue of the Supply Order and its related payment while Stock Book was checked in the office of the latter for verification of receipt of materials as claimed by the above firm. The fact of non-issue of supply order and non-receipt of materials was also confirmed by above two offices in reply to a audit query.

Department lodged (November 2015) FIR against the firm and the matter was under investigation.

(vi) Idle tools and machineries

Department procured tools and equipment for Mechanic Motor Vehicles (MMV) trade 2006-07 but failed to get affiliation from the NCVT and thetradecould not be made operational. Subsequently, some of the common tools and equipment were transferred to another trade 'Driver cum Mechanic' but audit noticed that one Motor Lorry[23] and Motor Car purchased for the trade at a cost of ₹ 7.77 lakh were lying idle, in the open causing wear and tear, which could have been transferred to other ITIs where MMV trade was in operation. It was also noticed that chemicals[24]purchased at a cost of ₹ 5.98 lakh for Cane, Willow and Bamboo trade was lying idle at ITI, Khumulwng. It was further noticed that the chemicals were purchased by the Department without any test analysis report. Photographs are given below:

Photograph of the Idle lorry at ITI, Ambassa

Photograph of the unused chemicals at ITI, Khumulwng.

Government stated (November 2015) that vehicles were being utilised for imparting practical training to the trainees of Driver-cum-Mechanic trade and chemicals were intended for long term use and accepted from the supplier on inspection by affiliation team.

[23] TATA truck and Ambassador car
[24] Borax and Boric Acid chemical

Reply of the Government was not tenable as on verification of the Government reply, the ITI, Ambasa could not furnish any records regarding actual utilisation of the vehicles for imparting practical training to the trainees of Driver-cum-Mechanic trade while no certificate regarding competency on chemical test analysis could be furnished by the ITI, Khumulwng in respect of the affiliation team members who conducted inspection of aforesaid chemicals.

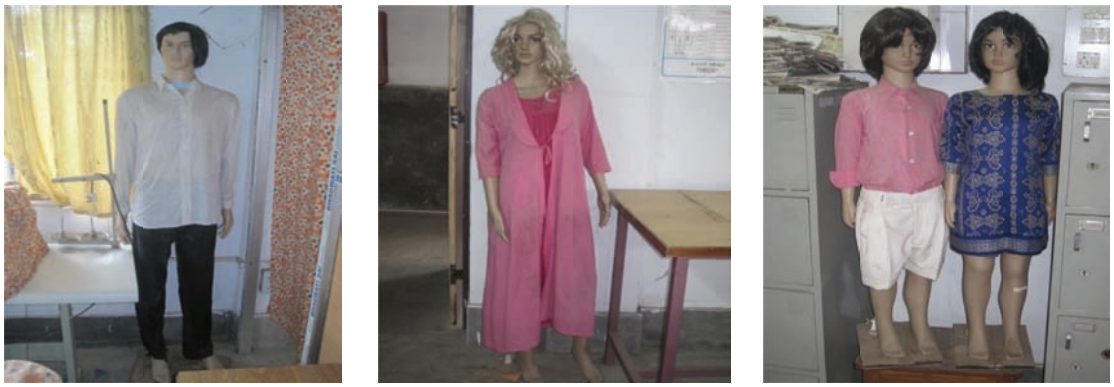
(vii) Procurement of tools & equipment and furniture without estimates andother irregularities.

Department did not maintain Notice Inviting Tender (NIT) Register, Tender Form Selling Register, Tender Opening (Technical and Financial) Register. Page numbering and sealing of bid documents were not done, tender opening committee did not sign the bid papers on each page as a proof of authentication. As a result, change in bid papers after opening of bid documents could not be ruled out. Department procured tools & equipment valuing ₹ 24.92 crore during the period covered in audit out of which procurement valuing ₹ 18.08 crore was test checked. But no estimate/ cost assessment was prepared by the Department before tendering and bids were accepted at the rate offered by the bidders. It was also noticed that the Bidders dictated the specification of the supplied items for *e.g.* the Department invited tenders for maximum 3 years old Heavy Vehicles for the MMV Trade in ITI, Khumulwng and Manubankul but the NCCF offered rates for 5-6 years old vehicles and the Department procured four such old vehicles at a cost of ₹ 51.40 lakh (@ ₹ 12.85 lakh per vehicle). Audit also noticed that cost of such new vehicles under DGS&D rate[25] was ₹ 13.62 lakh per vehicle. Therefore, the cost of the old vehicles seemed inflated. Another example of procurement without cost assessment by obtaining rates from the manufacturers/dealers can also be cited as procurement of six Dummies for Dress making trade at ITI, Khumulwng at the cost of ₹ 2.32 lakh which could have been procured merely at ₹ 0.42[26] lakh. It was also noticed that a new vehicle[27] was purchased through tender at higher rate (₹ 5.39 lakh) despite its availability at company price (₹ 3.76 lakh) with the local dealer. Photograph of trucks and dummies at the ITI, Khumulwng are given below:

[25] Sl No. 31 of DGS&D rate contracts for Built-up TATA Trucks and Truck Chassis for 2013-14, RC No. BT.LB_TC/AM-2/RC-2I010000/0214/72/05767/648 Dt.19-09-2013. Rate of Trucks for 2012-13 was available in DGS&D server but not accessible due to technical error, thus comparison was made with the rates of 2013-14.

[26] Adult Male Dummy-₹ 15,500 (2 Nos), Adult Female Dummy-₹ 17,000 (2 Nos) and Kids Dummy (boy and girl)-₹ 9,500, online prices of full plastic body with arm models at Shopclues.com and e-bay.in with free shipping facilities at current prices. The supply order did not mention the make of the dummies which left the supplier with wide option of supplying plastic or wooden or other make dummies.

[27] Maruti Eeco Vehicle at ITI, Khumulwng for Mechanic Auto Electricals and Electronics trade.



2 gents dummies were procured at ₹ 48,500 each, 2 ladies dummies @ ₹ 42,500 and children dummies @ ₹ 24,950 each were procured for ITI, Khumulwng.

Trucks were procured @ ₹12.85 lakh for MMV Trade in the ITI, Khukulwng.

Government accepted (November 2015) the fact that Tender Form Selling Register, NIT Register and Tender Opening Register were not maintained as per the prescribed format. While no reasons were furnished for non-adoption of standard procedure of sealing of bid documents and page marking of bid papers, etc. it was stated that the tender evaluation committee consisted of members from different departments having several pre-occupations which rendered authentication of each page of the bid papers by the committee members difficult and time consuming.

Reply of the Department was not tenable as non-authentication and scrutiny of all the bid papers by the Department paved the way for submission of forged performance certificate by one firm which was detected in audit and led to lodging of police complaints by the Department.

As regards absence of cost estimates it was stated that no schedule of rate for tools and equipment was available with the Department as the items listed for procurement were non-scheduled items and the tenders were evaluated by comparing the rates of earlier procurement and with the knowledge and experience of the tender evaluation committee members.

Reply of the Government was not tenable as the Department could have utilised the rates of earlier procurement and the knowledge and experience of the tender

evaluation committee members for preparation of cost estimates as utilised on receipt of rates from the bidders.

2.3.9(b) Availability of infrastructure and its utilisation by the Department.

Test check of records in the sample ITIs revealed that they lacked infrastructural facilities. The major deficiency was noticed in respect of tools & equipment and furniture, provision of raw material, books and library facilities, etc. as discussed below:

(i) Shortage of tools & equipment and furniture

The ITIs were required to maintain tools and equipment as per the standard lists[28] of tools and equipment of the trades concerned, as prescribed by NCVT. As per NCVT norms, for each trade, a total of 16 plus one set of tools were to be provided to the trainees. In the test-checked ITIs, audit noticed shortfall in the availability of tools and equipment ranging between 16 and 74 *per cent* with reference to the standard list of tools and equipment**.** Example of running trades without basic tools and equipment like absence of (i) Split AC, Duct able Split AC, Cassette Air Conditioner in the Mechanic (Refrigeration and Air- Conditioning) Trade, (ii) Absence of Surveying Instruments like Digital Theodolite, Instrument for Total Station, Hand held GPS in the Draughtsman Civil Trade and (iii) providing training to Electronics Mechanic with 2G Mobile phone sets instead of 3G mobile phones and Smartphones as per the guidelines of the NCVT in the ITI, Indranagar Boys. Shortfall in furniture[29] ranged from 15 to 70 *per cent*. Thus, conducting of industrial training without the required tools and equipment in ITIs affected the scope of the trainees in acquiring necessary trade skills and gainful employment. **Table No. 2.3.7** would give the ITI wise position of shortage of Tools & Equipment and Furniture.

Table No.2.3.8: Shortage of tools and equipment in the ITIs

Sl. No.	Name of the ITI	Requirement: tools & equipment	Availability: tools & equipment	Shortage: tools & equipment	Percentage of shortage: tools & equipment
		Furniture	Furniture	Furniture	Furniture
1.	Ambassa	629	289	340	54
		51	27	24	47
2.	Boxanagar	359	277	82	23
		27	8	19	70
3.	Dharmanagar	1,509	1,261	248	16
		201	162	39	19
4.	Indranagar (Boys)	1,550	974	576	37
		141	97	44	31
5.	Indranagar (Womens)	620	425	195	31
		157	133	24	15

[28] A list containing the names of the tools and equipment considered as the basic minimum requirement for the trade.

[29] Table, chair, stools, Black Board, Drrwaing Board etc were regarded as furniture requirement of the respective trades.

Table No.2.3.8: Shortage of tools and equipment in the ITIs (concld.)

Sl. No.	Name of the ITI	Requirement: tools & equipment	Availability: tools & equipment	Shortage: tools & equipment	Percentage of shortage: tools & equipment
		Furniture	Furniture	Furniture	Furniture
6.	Jatanbari	783	391	392	50
		87	29	58	67
7.	Kailashahar	1,265	329	936	74
		88	28	60	68
8.	Khumulwng	662	263	399	60
		65	27	38	58
9.	Ramkrishna Mission	403	232	171	42
		42	14	28	67
Total		**7,780**	**4,441**	**3,339**	**43**
		859	**525**	**334**	**39**

Source: Departmental records.

It is seen from the above table that the overall shortage of tools and equipment was 43 *per cent* while 39 *per cent* shortage was noticed in case of furniture items. ITI, Kailashahar had 74 *per cent* shortage of tools & equipment while ITI, Boxanagar had highest shortage of furniture with 70 *per cent*.

Government stated (November 2015) that shortages occurred due to regular revision of courses by the DGE&T and proposal for regular provision of funds had already been initiated at the appropriate level.

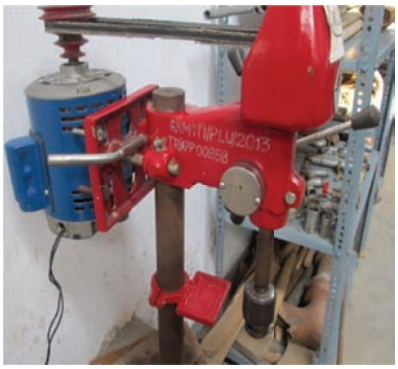
(ii) Tools & Equipment were not marked and identified

Quality Council of India (QCI) was set up jointly by the Government of India and the Indian Industry represented by the three premier industry associations i.e. Associated Chambers of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI), to establish and operate national accreditation structure and promote quality through National Quality Campaign. According to the QCI guidelines regarding creation of adequate infrastructure and availability of tools, equipment and furniture for awarding affiliation to a trade under CTS, the tools and equipment are to be identified with unique identification number by the respective ITIs.

Test check revealed that none of the Government ITI took adequate steps to put unique number to the tools and equipment. Name of the machines, year of procurement and name of the ITI, etc. were also not found recorded in the tools and equipment. Photographs of the tools & equipment at the Government ITIs and the Government aided ITI run by the Ramkrishna Mission, Agartala are given below.

Voltage Transformer machine at ITI, Ambassa under Electrician Trade.

Electrical Machine Trainer at ITI, Boxanagar under Electrician Trade



Drilling Machine at the ITI, Ramkrishna Mission for Plumber Trade

It would be seen from the above photographs that the equipment in respect of Government ITIs were not marked while the same was marked in private ITI of Ramkrisna Mission.Thus, transfer of tools and equipment from one ITI to another ITI could not be ruled out.

Government stated (November 2015) that the system of engraving in the tools & equipment was introduced in 2012 and added that instruction would be issued to all the ITIs which got affiliation before 2012 to mark and identify all assets while engraving was available with the tools & equipment of new ITIs.

Verification of Government reply showed that tools & equipment of the newly affiliated ITIs also lacked identification marks designed for uniqueness by the QCI.

(iii) Inadequate supply of raw material to the trainees

According to the DGE&T Manual, a training grant is allowed to each institute to cover the cost of raw material, consumables, stationery, etc. @ ₹ 400 per month per trainee for the engineering trades and ₹ 300 for the non-engineering trades per month, per trainee. Audit noticed that fund allotment to the Institutes were inadequate. Shortage of supply of raw material were noticed in 7 test-checked ITIs which indicated that raw materials and consumables were not available to the desired extent for the trades as per the NCVT norms. This affected the practical training to the trainees. The table below gives the position in detail:

Table No.2.3.9: Purchase of raw material by the ITIs

Sl. No.	Name of the ITI	Number of students during 2010-11 to 2014-15[30]		Raw material to be purchased as per norms	Raw material actually purchased including consumption of electricity	Shortfall (in ₹. (5- 6)	Percentage of shortfall
		Engg. trade	Non-engg. trade				
1.	2.	3.	4.	5.	6.	7.	8.
1.	Ambassa	208	74	12,15,200	10,77,098	1,38,102	11
2.	Boxanagar	47	21	3,73,800	3,81,743	(-) 7,943	(-)2
3.	Dharmanagar	513	86	29,62,800	21,43,608	8,19,192	28
4.	Indranagar (Boys)	1,011	154	53,87,600	26,99,148	26,88,452	50
5.	Indranagar (Women's)	131	659	26,51,600	12,35,032	14,16,568	53
6.	Jatanbari	294	131	20,86,000	18,23,690	2,62,310	13
7.	Kailashahar	398	220	32,96,800	14,52,802	18,43,998	56
8.	Khumulwng	40	55	3,28,000	3,77,103	(-) 49,103	(-)15
9.	Ramkrishna Mission School	92	0	2,94,400	2,92,728	1,672	1
Total		**2,734**	**1,400**	**1,85,96,200**	**1,14,82,952**	**71,13,248**	**38**

Source: Departmental records and reply.

It could be seen that percentage of overall shortfall was 38 *per cent,* the ITI, Kailashahar recorded the highest shortfall of 56 *per cent* and the ITI, Dharmanagar recorded least shortage with 01 *per cent*.

Government accepted (November 2015) the facts and stated that allocation for raw material and consumables would be increased as and when required.

(iv) Availability of basic amenities

In the test-checked ITIs, information on basic amenities for trainees such as potable water supply, playgrounds and toilet facilities were obtained. Audit noticed insufficient toilet facilities at ITI Kailashahar, Jatanbari and Indranagar (Boys) while well maintained playground was not available at any of the test checked ITIs.

Government stated (November 2015) that toilets were constructed as per CPWD norms but reply was not tenable as new construction were required to be undertaken with the increase of strength of trainees on introduction of Center of Excellence courses in the above three ITIs.

(v) Absence of hostel facilities for girl trainees and security of the boarders.

Test check revealed that Hostel facilities were available only in 6 ITIs out of the 9 test checked ITIs. Out of the 6 ITIs where hostel facilities were available 4 ITIs were co-educational but no hostel facilities were available for girl trainees though accommodation for male trainees were made available by the respective institutes.

[30] Restricted up to March 2015

Absence of hostel facilities for the girl trainees deprived the willing candidates from remote areas to take the benefit of ITIs to augment their skills for earning employment. Audit also noticed that except the Hostel at ITI, Kailashahar, none of the hostels in ITIs had been provided with kitchen facilities[31] and 2 hostels in the test-checked ITIs also lacked basic facilities such as toilet/drinking water, etc. as detailed in Table below:

Table No.2.3.10: Facilities in the ITI Hostels

Sl. No.	Name of the ITI	Status of hostel building	Drinking water facility	Bathroom and toilets	Kitchen/ lighting/fan etc	Security and surroundings
1.	Ambassa	2 Hostel Buildings. One was abandoned and another in a dilapidated condition.	Quality of water was not fit for drinking. Excessive iron content noticed.	Dilapidated condition.	Kitchen Facility was not available.	Occupancy Register and Register for visitors at entry and exit was not maintained. Bushes and Jungle required cleaning.
2.	Jatanbari	Good	Two Nos. treated water connection was available.	Available without water facility	Kitchen Facility was not available.	Occupancy Register and Register for visitors at entry and exit was not maintained.
3.	Indranagar (Boys)	Good	Available	Good	Kitchen Facility was not available. Only one ceiling fan was provided in 3 bedded hostel rooms.	Occupancy Register and Register for visitors at entry and exit was not maintained. Bushes and Jungle required cleaning
4.	Dharmanagar	Good	Available	Good	Kitchen Facility was not available.	Maintained
5.	Kailashahar	Good	Available	Good	Kitchen Facility was available.	Register for visitors at entry and exit was not maintained. Bushes and Jungle required cleaning

Source: Physical verification in audit.

Photographs of the cooking arrangements made by the trainees at the ITI, Jatanbari and Ambassa are given below:

[31] Where kitchen was available without any cook that was not taken into account.

Cooking arrangement made by the trainees at ITI, Jatanbari

Cooking arrangement made by the trainees at ITI, Ambassa.

Further, DGE&T had prescribed the provision of compound walls in all ITIs to protect their infrastructure and equipment. Audit however, noticed the absence of compound walls in 2[32] out of 9 of the test-checked ITIs. In the ITI, Indranagar (Boys) and ITI Jatanbari it was also noticed that some portion of the compound walls were broken posing a threat to the properties of the respective ITIs. Photographs of the broken compound wall are given below:

Broken compound wall of the ITI, Indranagar (Boys). Parking of private vehicle within the ITI campus area.

Broken compound wall of the ITI, Jatanbari in close proximity to a private household needed immediate reconstruction.

Government stated (November 2015) that funds were sanctioned for renovation of the hostels of the ITIs. As regards non-availability of hostels for girl trainees it was stated that there was no demand from the trainees. Reply was not tenable as audit analysis of student enrollment data in respect of WITI, Indranagar for 2010-11 to 2014-15 revealed that on average 19 girl trainees enrolled in the Institute every year who resided beyond 20 kilometers. Further, no demand survey report also could be produced to audit.

(vi) Functioning of libraries in ITIs

According to the DGE&T Manual, ₹ 25 per trainee per month was to be allotted for the purchase of books and trade-oriented magazines for the libraries in ITIs. However,

[32] Kailashahar and Ambassa

purchase of books fell far short of the norms prescribed by the DGE&T during the period covered in audit. Table below gives details:

Table No. 2.3.11: Purchase of library books

(in ₹)

Sl. No.	Name of the ITI	Number of Students during 2010-11 to 2014-15	Library Books to be purchased as per norms	Library books actually purchased	Shortfall *(in ₹)*	Percentage of shortfall
1.	Ambassa	282	85,380	9,865	75,515	88
2.	Dharmanagar	599	1,93,500	16,766	1,76,734	91
3.	Indranagar (Boys)	1,165	3,51,550	0[33]	3,51,550	100
4.	Indranagar (Women's)	790	2,05,400	22,466	1,82,934	89
5.	Jatanbari	425	1,43,400	5,031	1,38,369	96
6.	Kailashahar	618	2,19,500	3,245	2,16,255	99
Total		**3,879**	**11,98,730**	**57,373**	**11,41,357**	**95**

Source: Departmental records

It could be seen that the overall shortfall of purchase of library books was 95 *per cent* while maximum shortage was noticed in respect of Indranagar (Boys) ITI where no books and journals were purchased during the period of audit.

Government stated (November 2015) that there was a shift in reading habit from print to electronic material and trainees were more interested in reading from internet. Reply was not tenable because had the trainees been interested in electronic mode of books and study material, the Department could have procured e-books and e-journals with the quantum of allocation prescribed by the DGE&T.

(vii) Sports and recreation facility

According to the norms of the DGE&T, a sports and recreation grant of ₹ 50 per trainee per month was allowed. But test check revealed that only a meagre fund of 3 percent of the admissible amount was provided to the ITIs for sports and recreational facilities. Table below gives the details:

Table No. 2.3.12: Expenditure on sports and recreation

Sl. No.	Name of the ITI	Number of Students during 2010-11 to 2014-15	Expdr. on sports and recreation to be made as per norms	Expdr. actually made	Shortfall *(in ₹)*	Percentage of shortfall
1.	Ambassa	282	1,70,760	9,114	1,61,646	95
2.	Dharmanagar	599	3,87,000	18,320	3,68,680	95
3.	Indranagar (Boys)	1,165	7,03,100	4,384	6,98,716	99
4.	Indranagar (Women's)	790	4,10,800	9,773	4,01,027	98
5.	Jatanbari	425	2,86,800	9,885	2,76,915	97
6.	Kailashahar	618	4,39,000	12,585	4,26,415	97
Total		**3,879**	**23,97,460**	**64,061**	**23,33,398**	**97**

[33] ITI, Indranagar purchased books for ₹1,74,346 during 2009-10 and thus not included in the above table.

Thus, trainees were deprived of sports and recreation facility due to non-provision of adequate funds on this account.

Government stated (November 2015) that the amount of ₹ 50 per trainee per month was the maximum allowed limit for sports and recreation facilities but not the least amount.

(viii) Renovation of ITIs

ITI, Kailashahar was established in the year 1962 and was one of the oldest ITIs in the State and required extensive renovation works of old workshops including dismantling and construction of new building as revealed during audit check. Two proposals for renovation of the ITI were sent to the Department in 2009-10 and 2013-14 but no renovation work was taken up. Hostel Building attached to the ITI, Ambassa also required extensive renovation to make it suitable for lodging of the ITI, trainees. Photograph of the approach road to the Electrician and Mechanic Motor Vehicle (MMV) trade at the ITI, Kailashahar and hostel building of the ITI, Ambassa gives the position of the respective ITIs .

Photograph of the Workshop-cum-Class Room of the Electrician and MMV Trade at ITI, Kailashahar.

Photograph of the Hostel Building at ITI, Ambassa.

Department stated (November 2015) that renovation works were taken up depending upon the fund availability and added that funds had been sanctioned for renovation of hostel building and improving of water supply arrngements of ITI, Ambasa.

(ix) Diesel generator

NCVT also prescribed provision of backup diesel generating sets to keep training activities continuing at the time of load-shedding/power-cuts. Audit however, noticed that no such diesel generating sets were provided in the test checked ITIs.

Government stated (November 2015) that small generators and on-line UPS were available with the ITIs but running of heavy machineries with the assistance of generator was technically not feasible.

Reply was not tenable as the provision of diesel generator was a mandatory criterion as per the DGE&T guidelines. Department may consider generator sets of adequate capacity for running heavy machineries too.

2.3.9.1 Trends in admission and dropouts

Admission to ITIs was made annually on the basis of merit. The duration of engineering trades varies from one year to two years, whereas the duration of non-engineering trades was six months to one year. The minimum educational qualification for admission to the ITIs was from Class-VIII Standard to Higher Secondary (10+2) according to the trades. Male trainees between the age of 14 and 40 were admitted in ITIs while there was no upper age limit for girls.

The sanctioned strength, admission and vacant seats in ITIs during 2010-11 to 2014-15 are given in the Table below:

Table No. 2.3.13:**Pass dropout and admission details**

Sl. No.	Name of the ITI	Sanctioned strength	Admission	Percentage of admission	Drop out	Passed	Pass percentage	Drop out percentage
1.	Ambassa	179	177	99	46	131	74	26
2.	Boxanagar	80	44	55	11	33	75	25
3.	Dharmanagar	727	641	88	193	448	70	30
4.	Indranagar (Boys)	1,289	1,265	98	422	843	67	33
5.	Indranagar (Women's)	912	787	86	253	534	68	32
6.	Jatanbari	436	390	89	148	242	62	38
7.	Kailashahar	540	535	99	176	359	67	33
8.	Khumulwng	100	72	72	22	50	69	31
	Total:	**4,263**	**3,911**	**92**	**1,271**	**2,640**	**68**	**32**

Source: Departmental records

It could be seen from the above table that 92 *per cent* of available seats were filled up during last five years in the respective ITIs while 32 *per cent* of the trainees left the courses midway and did not continue and remaining trainees successfully completed the training courses.

Government stated (November 2015) that trainees left the trade on getting employment, some women trainees got married and some trainees also left trades for other reasons leaving the seats vacant. Department took steps to curb the trend of drop out by counseling, forfeiting the caution money and keeping the original mark-sheet of the trainees and also added that percentage of drop out could be reduced by the measures but could not to be fully annulled.

2.3.9.2 Irregular continuance of upper age limit in admission for male trainees

According to an instruction issued by the DGE&T in September 2010 there was no upper age limit for admission to Craftsman Training Scheme (CTS). But it was noticed that the Department of Industries and Commerce, Government of Tripura irregularly put upper age-limit barrier of 40 years for the male candidates willing to take admission in CTS.

Thus, the Department irregularly deprived the candidates who had attained the age of 40 years and were desirous to take admission in the CTS in violation of the instruction of the DGE&T.

Government accepted (November 2015) the facts and stated that subsequent admission would be done as per the instructions of the DGE&T as pointed out in audit.

2.3.9.3 Award of stipends

According to the DGE&T Manual, a stipend of ₹ 100 per month per trainee was to be awarded to all the trainees. In addition, GOI had instructed ITIs to pay merit scholarships of ₹ 125 per trainee to 4 *per cent* of the total number of trainees. The State Government however, had sanctioned stipend at varying rates for the hostellers and non-hostellers. In non-hosteller category, ₹ 100 per month was given to the General, OBC and Minority group of trainees and ₹ 200 per month was given to the SC and ST trainees while for the hostel-boarders ₹ 240 per month was given to General, OBC and Minority group and ₹ 900 to ₹ 1,200 per month was given to the ST/ SC trainees. No merit stipend was given to the meritorious trainees as per the Government of India norms. Audit observed that in two ITIs[34] stipend amounting to ₹ 0.58 lakh was refunded to the Government account due to non-disbursement of stipend to the trainees on account of late receipt of funds while ₹ 0.18 lakh remained un-disbursed at the ITI, Khumulwng as the trainees left the ITI on completion of the courses.

Government confirmed (November 2015) that no merit stipend was awarded to the trainees of the ITIs and also added that possibility of awarding merit stipend would be explored. As regards refund of stipend by two ITIs it was stated that excess funds were deposited back to government account. Reply of the Government was not tenable as verification[35] of Government reply confirmed that stipends were refunded due to late receipt of funds by which time trainees left the institutes.

Audit objective 5: Whether the requirement of the industry was met through a steady flow of skilled man power in different trades

2.3.10.1 Placement of trainees as apprentices

As per the provision of the Apprentices Act, 1961, it is obligatory on the part of an employer to train a certain number of apprentices assigned by the State. The ITIs produce semi-skilled workers. In order to improve their skills and expose them to industrial environment, the trainees who successfully complete their trainings are sponsored to industrial establishments and are given apprenticeship training under the Apprentices Act, 1961. The period of apprenticeship training varies from six months to four years depending upon the trade. The position of ITI passed out trainees in the test checked ITIs and placement for apprenticeship training are given in the table below:

[34] ITI Indranagar (Boys) and Ambassa.
[35] Records of the ITI, Indranagar were verified (December 2015)again on receipt of the Government reply.

Table No. 2.3.14: Placement of Trainees as Apprentices

Name of the ITI	Number of trades available	No. of trainees passed	No. of trainees sponsored for apprenticeship training	Percentage of placement as apprentices	Name of the trades for which trainees were placed	Sector where placed
1	2	3	4	5	6	7
Ambassa	7	145	46	32	Welder, Draughtsman (Civil), Wireman	Not furnished
Dharmanagar	8	279	240	86	Welder, COPA, Fashion Technology, Sanitary Hardware and Fitter, Electronic Mech., Mech. Motor Vehicle, Electrician, Wireman	Except 2 batches of wireman all the trainees were sent to private sector for apprenticeship training.
Indranagar (Women's)	6	239	35	15	COPA, Draughtsman (Civil), Electronic Mech.,IT&ESM,	Not furnished
Jatanbari	10	242	36	15	Draughtsman (Civil), Surveyor, Electrician, Carpenter	Government Offices and Corporations
Kailashahar	12	359	301	84	COPA, Mech. Motor Vehicle, Electrician, DTPO, Fitter, Draughtsman (Civil), Surveyor,	Government offices/institutes as well as private institutes.
Total	**43**	**1,264**	**658**	**52**		

Source: Departmental records and replies furnished to audit queries.

It could be seen that overall only 52 *per cent* passed out trainees were sponsored for apprenticeship training to Government offices/ Corporations and private institutes. Poor placement of trainees for apprenticeship in ITIs at Ambassa, Indranagar (Women's) and Jatanbari deprived them of on-job training after completion of successful training at the respective ITIs.

Audit analysis further revealed the following:

- In ITI Ambassa 76 passed out trainees from COPA, Mech. Radio & TV, and Driver-cum-Mechanic were not sent for any apprenticeship training while 23 trainees out of the 50 passed out trainees of Welder trade during the audit period were waiting for the said training.
- In ITI Jatanbari 144 passed out trainees from Stenography, COPA, ITESM, Mech. Radio & TV, Electronic Mechanic and Wireman were not sent for any apprenticeship training, 36 trainees out of the 98 trainees passed from Surveyor, Draughtsman (Civil), Electrician and Carpenter trades were sponsored while 62 trainees were waiting for the said training.
- In the Women ITI, Indranagar 104 passed out trainees from Stenography and Dress Making were not sent for any apprenticeship training , 35 trainees out of the 135 trainees passed from COPA, Draughtsman (Civil), Electronic Mechanic

and ITESM trades were sponsored for apprenticeship training while 100 trainees were waiting for the said training.

- In ITI Kailashahar, 49 trainees who had passed Stenography (English) were not sent for any apprenticeship training.

Government stated (November 2015) that industrial establishments in the State were very limited and seats for engagement of apprentices were also very low. It also assured that adequate steps would be taken to locate more seats for apprenticeship training for the ITI trainees.

2.3.10.2 Ex-trainees follow up

As per the DGE&T Manual, ITIs are to maintain 'Record cards' of ex-trainees as a follow-up measure to ensure that the ITI trainees, on successful completion of the training, have been able to secure employment. If employed, the name of the employer should be given; failing which, the whereabouts of unemployed trainees should be shown in the record cards.

Though the ITIs furnished employment data in respect of few ex-trainees but no detail cards as prescribed in the DGE&T Manual were maintained.

Government stated (November 2015) that detailed information of all the passed out trainees could not be maintained as the trainees were least interested to provide the information regarding employment etc.

2.3.10.3 Employability of ITI trainees

The objective of establishment of ITIs was to impart industrial training to school-leaving youth so that they could acquire technical skills for gainful employment. ITIs in the State produce nearly 2,200 skilled persons every year by imparting industrial training in various trades.

An audit survey[36] disclosed that only six *per cent* of the ITI candidates registered in the Employment Exchanges in the State and 6 *per cent* got employed as detailed in **Table No. 2.3.15.**

Table No. 2.3.15: Results of survey on employment

Details	No. of Trainees
Number of persons to whom *proformae* were sent	1000
Number of persons who responded	339
Number of ITI passed candidates registered with Employment Exchanges	253
Number of persons who got employment through Employment exchanges	15
Number of persons who got employment through own effort	101
Number of persons who got jobs in the relevant trade	21

Source: Information obtained during audit by carrying out survey.

[36] A survey done through collection of responses to questionnaires on their employment sent to trainees, who had completed their courses in the test-checked ITIs during 2010-11 to 2014-15.

It was also noticed that only eighteen[37] *per cent* ITI passed trainees got jobs in their relevant trade.

Audit query also revealed that though 156 trainees passed out from the ITIs in the State during 2010-11 to 2014-15 in the Electrician Trade, none of them were recruited[38] by the Tripura State Electricity Corporation Limited (TSECL).

2.3.11 Monitoring

According to the DGE&T Manual, inspecting officers of the State Directorate of Training should inspect the ITIs in their charge as frequently as possible and give advice on the training, take trade test, check the efficiency of the instructors and assist Principals of training institutes on all matters relating to training classes. Audit however, noticed that no such inspection was carried out either by the Directorate staff or any designated officer in the test-checked ITIs during 2010-11 to 2014-15 and no observations were found recorded in the format[39] prescribed by the DGE&T. Thus, monitoring mechanism in the ITIs was not upto the desired extent.

Government stated (November 2015) that consolidated reports of ITIs were reviewed in each monthly meeting and corrective actions were taken.

2.3.12 Physical verification of stock

According to the General Financial Rules (GFR) physical verification of Stock shall be done once in a year. It was noticed that annual physical verification of tools & equipment and furniture was not done in any of the test checked ITIs.

As a result, availability of tools & equipment, furniture and other articles as recorded in the Stock Register could not be ascertained and verified in audit.

Government stated (November 2015) that physical verification of stock/assets was completed in 4 ITIs while the process of verification was going on in the remaining ITIs.

2.3.13 Conclusion

Government's plan to provide ITIs in all the uncovered Sub-Divisions of the State remained unachieved. The test checked ITIs lacked infrastructural facilities such as adequate tools & equipment and hostel facilities for the girl trainees. Similarly, adequate raw material for the trades and reference material for trainees were not available in the test-checked ITIs. Irregularities in procurement of equipment/material by the Department led to supply of goods without basic documents from the manufactures. Procurement was done without any cost estimate and supplier dictated the specification of the supplied items. Failure of the Government in identifying new industries and institutions for placement of ITI passed candidates resulted in

[37] 21/ (101+15)
[38] 62 persons were recruited during the period of audit based on the applications against recruitment notice 2001 and 2007.
[39] Appendix-XV of the Training Manual of ITIs, 3rd Edition, January 2014.

inadequate placements for apprenticeship training scheme in industries. The increasing trend of vacant seats and dropouts in ITIs was a matter of concern.

2.3.14 Recommendations

- Government's plan to establish ITI in the uncovered Sub-Divisions should be ensured in a time bound manner;
- Availability of adequate tools, equipment and raw material for trainees in ITIs should be ensured so as to provide quality training to trainees;
- Procurement procedure should be revamped and procedure of e-tendering be adopted;
- Apprenticeship training to be ensured for all the passed out trainees,
- Initiatives may be taken to organise campus interview for the ITI passed out trainees,
- Inspection of the ITIs should be conducted periodically as envisaged in the DGE&T Manual.

SCIENCE, TECHNOLOGY & ENVIRONMENT DEPARTMENT

2.4 Effectiveness in the functioning of Tripura State Pollution Control Board

For abatement of pollution and protection of environment in the State, Tripura State Pollution Control Board (TSPCB) was set up by the Government of Tripura in the year 1988 under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act 1981. The Board was also entrusted with the responsibility of enforcement of the Environment (Protection) Act 1986 and various rules made thereunder. A review of functioning of TSPCB brought out the following points:

Highlights:

TSPCB did not complete the work of preparing the inventory of the polluting industrial units which led to deficiencies in formulating annual action plans for preventing/ controlling water and air pollution.

(Paragraph 2.4.6)

The laboratory of TSPCB was functioning without accreditation and without required testing facilities. The laboratories at zonal offices could not be made operational due to lack of infrastructural facilities.

(Paragraphs 2.4.8.1, 2.4.8.2 and 2.4.8.3)

Due to lack of controls in consent administration, 728 industrial units were running without consent during 2010-15 and the Board did not take any action against them.

(Paragraph 2.4.9.1)

The municipal bodies did not have sewage treatment plants and untreated sewage was being discharged into rivers and other water bodies. No action plan as required under Water Act was prepared by TSPCB for taking remedial measures and restoring the water quality of the rivers and water bodies.

(Paragraphs 2.4.11.2, 2.4.11.3 and 2.4.11.4)

The municipal bodies did not comply with the provisions of Municipal Solid Waste (Management and Handling) Rules, 2000 regarding Municipal Solid Waste management.

(Paragraph 2.4.14.1)

Out of identified 1258 Health Care Establishments (HCEs), 694 HCEs were operating in the State without authorisation from TSPCB and there were inadequate bio-medical waste treatment and disposal facilities as prescribed in Bio-medical Waste (Management and Handling) Rules, 1998.

(Paragraphs 2.4.15.1, 2.4.15.2 and 2.4.15.3)

Financial management of TSPCB was lacking as it could utilise only 4.72 *per cent* to 14.13 *per cent* of yearly available funds for pollution control measures during last five years.

(Paragraph 2.4.18)

Insufficient man power adversely affected the functioning of TSPCB.

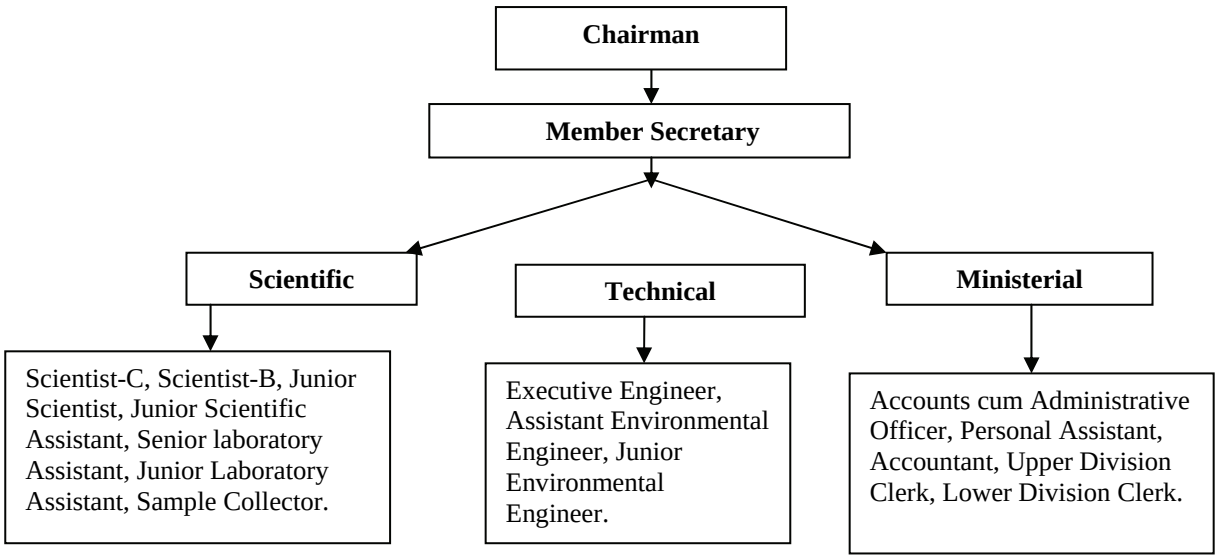
(Paragraph 2.4.19)

2.4.1 Introduction

Tripura State Pollution Control Board (TSPCB) is the nodal agency of the State Government for planning, coordination, prevention & control of pollution and also protection of environment in accordance with the framework of environmental regulations. TSPCB was set up by the Government of Tripura in the year 1988 under the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981. TSPCB was also entrusted with the responsibility of enforcement of the Environment Protection Act, 1986. The Acts largely provide TSPCB a predominant role in monitoring of compliance with the provisions of these Acts by industrial units, municipal bodies, hospitals, etc. To enable it to discharge the mandated functions effectively, TSPCB was vested with powers to obtain information from the persons in charge of any establishment; inspect and collect samples of effluents/emissions; grant/reject/withdraw consent for establishment/operation of any industry, operation or process.

2.4.2 Organisational set-up

TSPCB is headed by a Chairman who is assisted by a Member Secretary. TSPCB operates under the Science, Technology and Environment Department, Government of Tripura. It has three zonal offices at Kumarghat, Ambassa and Udaipur, which are functioning without laboratory. The organogram of TSPCB is given below:



(**Source**: Information provided by TSPCB)

2.4.3 Audit Objectives

The objectives of this performance audit were to ascertain whether:

- Mechanisms adopted by TSPCB to prevent and control the pollution were effective and efficient;

- Monitoring of compliance with Acts, Rules and conditions was adequate and effective;
- Funds management by the Board was efficient to secure optimum utilisation, and
- Adequate manpower and effective internal control mechanism existed.

2.4.4 Audit criteria

The audit criteria for assessing the achievement of the audit objectives were derived from the following sources:

- The Water (Prevention and Control of Pollution) Act,1974 (Water Act);
- The Water (Prevention and Control of Pollution) Cess Act,1977;
- The Public Liability Insurance Act, 1981;
- The Air (Prevention and Control of Pollution) Act, 1981 (Air Act);
- The Environment (Protection) Act,1986 (EP Act) and various Rules made there-under;
- Directions and notifications issued by Central Pollution Control Board (CPCB), Government of India (GoI) and State Government.

2.4.5 Scope of Audit and Methodology

Performance Audit on the "Effectiveness in the functioning of Tripura State Pollution Control Board" was conducted between April 2015 and August 2015 covering the period from 2010-11 to 2014-15. The focus areas of audit were to examine areas of adequacy of measures adopted to address environmental pollution and the efficiency with which they have been executed and to assess the effectiveness in funds management by the Board in respect of programmes relating to pollution and compliance with relevant statutes. Audit also assessed whether the measures adopted in addressing pollution had the desired impact in abatement or control of pollution in the State.

The audit methodology comprised examination of reports and records, analysis of documents at TSPCB[40], responses to questionnaires issued at various levels like TSPCB, Municipal bodies, Health care establishments etc. Before taking up of audit, the audit party participated (27 April- 1 May 2015) an workshop cum national training programme on "Introduction to Environmental Audit with special emphasis on Audit of SPCBs" organised by the Indian Audit & Accounts Department in the International Centre for Environment Audit & Sustainable Development (ICED), Jaipur. In this workshop, the experts related to environment guided the audit parties, of North Eastern States, related to this Performance Audits.

An Entry Conference was held on 18 May 2015 with the Secretary to the Government of Tripura, Science, Technology and Environment Department (STED) and Member

[40] The zonal offices were carrying out inspections of industrial units, processing of consents and collection of samples. However, the records of the TSPCB were maintained in the Head office at Agartala.

Secretary of TSPCB wherein audit objectives, scope of audit, audit criteria and methodology were discussed.

An Exit Conference was held on 13 November 2015 with the Special Secretary, STED wherein the audit findings were discussed. Response of the Government and Board during exit conference and written replies of the Board duly approved by the Government (November 2015) have been taken into account while finalising this report.

Audit findings

Audit Objective 1: Whether the systems adopted by TSPCB to prevent, control and for abatement of pollution were effective and efficient?

2.4.6 Inventory of polluting sources not prepared

As per Section 17 of Water and Air Acts, TSPCB was required to plan comprehensive programmes for prevention and control of water and air pollution. For this purpose, polluting sources and the type and quantity of pollutants discharged into environment were to be identified. The resultant inventory was to form the basis for planning pollution prevention/abatement programmes.

Audit observed that TSPCB entrusted (October 2011) the tasks of preparing inventories and categorising industries to National Environmental Engineering Research Institute (NEERI), Nagpur (a constituent of Council of Scientific and Industrial Research, New Delhi) at a project cost of ₹ 15 lakh. As per project proposal submitted (September 2011) by the NEERI, it was to submit final project report with full documentation after one year from the date of entrustment of the job. The NEERI was paid (between October 2011 and July 2014) ₹ 14.89 lakh (90[41] *per cent* of ₹ 15 lakh *plus* service Tax) after submission (February 2014) of the draft project report as per terms and conditions of their project proposal.

However, it was noticed that the NEERI did not furnish the final project report as of November 2015 for which no reasons were found on record. There was no evidence that TSPCB pursued the matter with the NEERI for early completion of the work.

TSPCB stated (August 2015) that the project for inventorisation and categorisation of industries was done by the NEERI. The reply is not tenable as the project report was not finalised as of August 2015. TSPCB further informed (November 2015) that the matter of finalisation of report by NEERI was under process subject to rectification of some basic requisites.

Besides, identification of hospitals and other health care establishments was not done.

After this being pointed out, TSPCB informed (November 2015) that the preparation of inventory of Health Care Establishments (HCEs) would be taken up.

[41] 50 *per cent* project cost was paid as advance and 40 *per cent* project cost was paid after receipt of draft project report

Thus, TSPCB was not in a position to plan comprehensive programmes to prevent, control and abate water and air pollution due to non-preparation of inventory to identify the polluting industries and HCEs in the State.

2.4.7 Annual Action Plans

Annual Action Plan of any organisation defines various activities and sub activities proposed to be taken up including physical and financial targets to be achieved in the ensuing year in line with the vision and long/short term goals of the organisation.

It was seen that the Board did not prepare the Annual Action Plans (AAPs) for 2012-13 and 2013-14. Though AAPs were prepared for the years 2010-11, 2011-12 and 2014-15 by the TSPCB, physical and financial achievement against target fixed in the AAPs was not assessed/ prepared.

However, the Special Secretary, STED stated (November 2015) during exit conference that target shown in the AAPs could not be achieved due to irregular flow of funds from different funding agencies.

2.4.8 Environmental laboratories

Under the Section 52 of Water Act and Section 28 of the Air Act, the State Board may establish or recognise laboratories for analysing water/air samples to enable the Board to perform the functions stipulated in the Acts. There was only one Laboratory at Agartala for this purpose.

2.4.8.1 Accreditation of laboratory

As per Central Pollution Control Board (CPCB) guidelines issued in June 2008, laboratory accreditation provides recognition of technical competence including quality system management of the laboratories. Such recognition is considered the first essential step towards mutual acceptance of test results and test certificate.

Further, according to instructions issued (August 2011) by the Ministry of Environment and Forests (MoEF), GoI, TSPCB was required to acquire accreditation under the Environment Protection Act, 1986 (EP Act), ISO 17025 (NABL[42] Accreditation) or ISO 9001 certification along with OHSAS[43] 18001 certification within a period of one year for its laboratory. However, it was noticed that the laboratory was functioning without accreditation.

TSPCB attributed (November 2015) the main reasons for non-accreditation of laboratory to non-fulfilment of required infrastructure/ technical manpower/ instruments/ equipment.

Thus, test results and test certificate issued by TSPCB's lab could not be considered for mutual acceptance as per CPCB guidelines/ instructions due to not acquiring of the accreditation by TSPCB.

[42] National Accreditation Board for Testing and Calibration of Laboratories
[43] Occupation Health and Safety Assessment Series

2.4.8.2 Insufficient equipment/instruments and testing facilities in the laboratory

As per Central Pollution Control Board (CPCB) guidelines issued in June 2008, every laboratory should have facilities for a minimum of six categories of tests, *viz*. physical, inorganic, organic, microbiological, toxicological and biological tests for water analysis. Similarly, for air analysis, the laboratory should have facilities for five categories of tests. An environmental laboratory should provide for facilities for hazardous waste and soil/sludge/sediment/solid waste analysis. It was noticed that the laboratory did not have the capacity for conducting all the mandatory tests as existing equipment/ instruments were not in conformity with the mandatory equipment/instruments required for water, waste and air analysis as per CPCB guidelines**.** Further, equipment/instruments required for hazardous waste analysis were not available in the laboratory. The details are given in the **Appendices 2.4.1** and **2.4.2.**

TSPCB replied (November 2015) that apart from few inorganic and toxicological parameters, it was capable to analyse all the physical, organic, microbiological and biological parameters for the water and waste water analysis and it was also capable to analyse five important air parameters including SO_x[44], NO_x[45], PM_{10}[46] and $PM_{2.5}$[47].

Thus, in the absence of the required testing facilities and equipment in the laboratory, it implied that TSPCB was not fully equipped to analyse the samples for water/ air pollutants.

2.4.8.3 Lack of infrastructural facilities in zonal offices

TSPCB established (August 2012) three zonal offices at Kumarghat, Ambassa and Udaipur. Those offices were temporarily accommodated in the building premises (one room for each office) of district offices of the STED.

TSPCB procured pollution testing equipment valuing ₹ 34.71 lakh for laboratories of zonal offices during 2013-14 (shown in **Appendix 2.4.3**). However, equipment were not sent to zonal offices for installation due to adequate space not being available and remained idle at TSPCB's central office at Agartala. Thus, the zonal offices could not be operationalised.

TSPCB replied (November 2015) that initiatives were already taken to construct the buildings for the zonal offices and laboratories and also added that for that purpose, it had sent a number of proposals to the various funding agencies like North Eastern Council, Ministry of Environment and Forests (MoEF), State Government and CPCB for providing financial assistance.

[44] Sulphur Oxides
[45] Nitrogen Oxides
[46] Particulate Matter with a diameter of 10 micron
[47] Particulate Matter with a diameter 2.5 micron

2.4.8.4 Survey not conducted to assess arsenic contamination in ground water

It was observed that the North Eastern Regional Institute of Water and Land Management (NERIWALM), Tezpur, Assam conducted an analysis of ground water samples of 117 locations in different parts of Tripura during the year 2003 and analysis report showed that arsenic concentration in groundwater exceeded[48] the permissible level (i.e.50 microgram/litre) in three[49] out of four districts[50].

TSPCB decided (February 2005) to conduct a comprehensive survey of ground water by analysing a large number of samples to ascertain the presence of arsenic in ground water. However, no such survey was conducted even 10 years later as of November 2015. However, Family Welfare and Preventive Medicine (FW& PM) Department, Government of Tripura stated (November 2015) to audit that no case of 'Arsenocosis' or any other disease/ health symptoms caused by arsenic rich drinking water was reported in the State in the period 2010-15.

The TSPCB replied (August 2015 and November 2015) that steps would be taken to start extensive investigation of arsenic contamination in ground water in Agartala Municipal area and Indo-Bangla Border area. However, time frame for completion of the investigation work was not fixed as informed during exit conference (November 2015).

Thus, the fact remained that TSPCB did not conduct comprehensive survey for detection of arsenic contamination in ground water even after lapse of 10 years of taking the decision in this regard. Further, the reply of FW& PM Department indicated towards a position which was not factual as the arsenic content in the groundwater of the State exceeded the permissible limit by a very large margin.

Audit Objective 2: Whether monitoring of compliance with Acts, Rules and conditions was adequate and effective?

The Water Act, Air Act and EP Act empowered the State PCBs to take all such measures necessary for prevention, control and abatement of environmental pollution, to take appropriate action for regulation and control of any industry, operation or process and to initiate legal proceedings in the cases of infringement of environmental laws. Under the EP Act, various waste management and handling rules were also framed by GoI requiring the State PCBs to control and abate the pollution emanated by various types of wastes. The power to issue directions includes the power to direct closure of any industry, operation or process under Section 33 A of Water Act, Section 31A of Air Act and Section 5 of EP Act. The Acts have provision for prosecution and imprisonment of the convicted up to three months to seven years and/or a penalty ranging from ₹ 10,000 to ₹ 1,00,000 for violation of provisions of environmental laws and non-compliance with directions of the Board.

[48] The exceeded levels of arsenic ranged from 65 to 444 microgram/ litre
[49] West Tripura, Dhalai and North Tripura
[50] From April 2011, the State was divided into eight districts.

2.4.9.1 Lack of effective consent administration

Under Section 25 of Water Act and Section 21 of Air Act, consent of TSPCB was required to establish any industry, operation or processes which were likely to discharge sewage or trade effluent into a stream, well, sewer or on land and/or pollute the air by emission. These Acts empowered TSPCB to issue consent for establishment (CFE) and consent for operation (CFO) to the industrial units and carry out its periodical renewal.

Further, according to Section 51 of the Air Act read with Section 25 of the Water Act, every State PCB should maintain a register containing particulars of the persons to whom consent has been granted and the register should be open for inspection by any person.

Scrutiny of consent register revealed that the details indicating pollution category of industry (i.e. Red/Orange/Green), type of consent applied for and granted, date of issue of consent, provisions of Water/ Air Act under which consent issued, etc. were not recorded in the register. As such, category-wise position of industries to which CFO and CFE were issued during 2010-15 could not be ascertained.

In reply to an audit requisition issued in May 2015, TSPCB submitted (June 2015) a list of 728 industrial units which were running without renewal of consent during 2010-15. Of these, 617 units did not apply for renewal and no action was taken against them. In respect of remaining 111 units applications for renewal of consent submitted by them were pending with TSPCB for disposal.

TSPCB replied (August 2015) that action would be taken against the industries which were running illegally without consent and further added (November 2015) that a notice was issued in the local newspaper in July 2015 directing the defaulting industries to apply for renewal of consent certificate. However, it was informed during exit conference (November 2015) that timeframe would be fixed for taking action against them.

The above irregularities indicate that the Board was not interested in enforcing its regulatory function of granting / withholding consent for functioning of industries-the primary reason for which it had been set up.

2.4.9.2 Delay in issue of consent

Under Section 25 of Water Act and Section 21 of Air Act, the consent to operate or establish the industrial units was to be granted to these units within four months from the date of application.

Test-check[51] of records revealed that 54 annual consents were granted/ renewed to 41 large scale red category (highly polluting) industries[52] during 2010-15. It was seen that out of 54 consents, 36 consents were issued after the stipulated time of four

[51] Records of 41 highly polluting red category large scale industries (having fixed capital investment of more than ₹ 5 crore) to which consent orders were issued during 2010-15, were selected for test-check

[52] Latex processing units, thermal power plants, oil & gas drilling units, etc.

months. The period of delay in issue of consent ranged from one month to 43 months beyond the stipulated time of four months. The details are shown in the **Appendix 2.4.4.**

TSPCB, however, stated (August 2015) that though the number of industries was increasing day by day, the manpower of the Board was inadequate. It further added (November 2015) that because of lack of manpower the consent certificates could not be issued within stipulated time.

Thus, failure of the Board to issue consents within stipulated time led to operation of the industrial units in the State without consent which indicated towards functioning of these units without following the prescribed norms.

2.4.10 Inadequate inspection of industrial units

TSPCB did not fix the frequency of inspection by its officials for red/orange/green category industries to check compliance of Water and Air Acts. However, as per instructions issued by MoEF in December 1999, industrial units should be regularly inspected with frequency depending on their classification *viz*., Red (highly polluting), Orange (moderately polluting) and Green (least polluting), which is also followed by TSPCB, as shown in the following table:

Table No. 2.4.1

Sl. No.	Size of industry	Category of industry	Frequency of visit and effluent sampling
1.	Small scale	Red	Once in 12 months
		Orange	Once in three years
		Green	Once in three years
2.	Large and Medium scale	Red	Once in three months
		Orange	Once in six months
		Green	Once in 12 months

It was noticed that there was 74 *per cent*[53] shortfall in inspections in respect of 41 test-checked large scale industrial units to which consent was granted during 2010-15 (**Appendix 2.4.5).**

On this being pointed out, TSPCB informed (August 2015 and November 2015) audit that the instructions regarding frequent inspections could not be followed due to lack of manpower. However, the Board did not take adequate steps to increase its manpower as discussed in the **Paragraph 2.4.19**.

Thus, failure to conduct required number of inspections left the scope of non-compliance of Pollution Control Acts and Rules by the industrial units.

2.4.11 Water pollution

Water pollution is the presence of harmful and objectionable material in water in sufficient concentrations to make it unfit for use. The Water Act empowers TSPCB to make any order for the prevention, control or abatement of discharge of waste into streams or wells and requires any person concerned to construct new systems for the

[53] Only 54 inspections representing 26 *per cent* were conducted out of 205 (41 industries x once per year x 5 years) inspections to be conducted during 2010-15.

disposal of sewage and trade effluents or to modify, alter or extend any such existing system or to adopt such remedial measures as are necessary to prevent, control or abate water pollution.

2.4.11.1 Installation of Effluent Treatment Plants by the industrial units

Section 25 of the Water Act envisages that every person or entity to which consent has been granted by the Board should install treatment equipment in the premises where the industry is carrying on its operation and keep it in good running condition.

It was noticed that out of 41 red category large scale industrial units to which consent was granted during 2010-15, 28 industrial units were required to install ETP as per terms and conditions of the consent orders. It was seen from the inspection reports of TSPCB that out of these 28 units, 12 units had installed ETPs and seven units did not install ETPs. Status about installation of ETPs in remaining nine other industrial units was not indicated in the inspection reports. The details are shown in **Appendix 2.4.5.**

TSPCB replied (August 2015) that it would take steps to maintain database regarding industrial units operating without ETPs and ETPs installed but not complying with the standards.

During exit conference (November 2015) it was informed that timeframe would be fixed to take action against those industries which were operating without ETPs or their ETPs were not functional.

However, the fact remained that in absence of the database regarding industrial units operating without ETPs, TSPCB could not take action against all such defaulting industrial units.

2.4.11.2 Lack of sewage treatment facilities

Sewage emanating from populated areas is one of the major sources of water pollution. As per Section 25 of Water Act, the Municipal bodies have to ensure that the sewage emanating from their jurisdictional areas are not released untreated and are responsible for management of the sewage under their jurisdiction.

It was seen that 52-55 litre/capita/day of sewage was generated from the jurisdictional areas of the Urban Local Bodies (ULBs) in the State but no Sewage Treatment Plant (STP) was constructed by the ULBs and untreated sewage contaminated the rivers and water bodies as mentioned in the succeeding **Paragraphs 2.4.11.3** and **2.4.11.4.**

Test-check of records revealed that TSPCB never issued directions under Water Act to the municipal bodies for construction of STPs. There was also no evidence from the records made available to audit that TSPCB had at any time analysed the reasons for non-construction of STPs by the municipal bodies during 2010-15.

After this being pointed out, TSPCB replied (November 2015) that it would issue directions to the ULBs for construction of STPs for treatment of un-treated sewage.

2.4.11.3 Excess organic and bacterial contamination in the rivers

Based on water quality data for the years 2009-12, the CPCB identified (February 2015) two polluted river stretches in the State *viz*. (i) Telkajila to Amarpur (20 km.) on river Gumti and (ii) Agartala to Bishramganj (10 Km.) on river Howrah. The maximum BOD recorded in these river stretches was 4.5 mg/l (Gumti) and 4.8 mg/l (Howrah) respectively against the prescribed limit of $\leq$ 3 mg/l. However, these rivers of Tripura were less polluted when compared to others large rivers[54] of the country.

It was noticed that the Central Pollution Control Board (CPCB) had instructed (March 2015) TSPCB to provide feedback and comments on the above issue and TSPCB informed (April 2015) the CPCB that the drain water of nearby localities was being directly discharged into the rivers Gumti and Howrah and outlet of *kutcha* latrines were directly linked to the river Howrah in the Agartala region and added that it would instruct concerned authorities for restoration of these rivers. Analysis of data of TSBCB's water quality monitoring stations on the downstream of rivers Howrah (at Chandrapur, Agartala) and Gumti (at Sonamura) showed that the organic pollution (indicated by the BOD level exceeding the prescribed limit of $\leq$ 3 mg/l) and bacterial contamination (indicated by the Total Coliform[55] level exceeding the prescribed limit of $\leq$ 500 MPN/100ml[56]) continued to be critical during 2010-15.

In reply, TSPCB stated (November 2015) that it had prepared a project proposal covering ten major rivers of the State to solve environmental problems of entire river stretches including polluted degraded stretches and efforts would be taken to secure funding from external agencies to implement the project jointly by all line Departments like Forest, Urban Development and Agartala Municipal Corporation (AMC).

However, the fact remained that the TSPCB did not take steps to plan a comprehensive programme for the prevention, control or abatement of pollution of river and other water bodies of the State and to ensure the implementation of the same as envisaged in Section 17 of Water Act.

2.4.11.4 Contamination of water bodies due to sewage and solid waste influx

It was observed that TSPCB made a pollution load assessment of four water bodies[57] of Udaipur under Gumti District in April 2014. TSPCB collected water samples from the four water bodies and analysed the different parameters that determined water quality in the laboratory of the Board. It was noticed from the report on the above pollution load assessment that BOD values of almost all the water samples collected

[54] Examination of Report on 'River Stretches for Restoration of Water Quality' prepared by CPCB in February 2015 revealed that the BOD in respect of Yamuna river ranged between 39 to 113 mg/l (stretch between Wazirabad to Asgarpur in Delhi); the BOD in respect of Godavari river ranged between 4 to 40 mg/l (stretch between Someswara temple to Rahed in Maharastra) and the BOD in respect of river Ganga ranged between 7.8 to 27 mg/l (stretch between Buxur to Bhagalpur).

[55] Coliform is the commonly used bacterial indicator of sanitary quality of food and water

[56] Most Probable Number is a unit for measurement of coliform bacteria in turbid water samples

[57] Amarsagar, Jagannathdighi, Mahadebdighi and Dhanisagar

were higher (ranging between 3.53 mg/l to 24.1 mg/l) than the prescribed standard value (≤ 3 mg/l) and therefore, all the water bodies had high bacteriological load.

TSPCB made (April 2014) recommendations to the Government to restore and conserve the water quality of the water bodies such as diverting existing canals and drains, prohibiting dumping of solid wastes in water bodies and to create awareness among the local people.

TSPCB replied (November 2015) that the matter was noted for communication to Udaipur Municipal Council, Urban Development Department and other related departments to take necessary steps. However, it was informed during exit conference (November 2015) that the timeframe for implementation of the recommendations was not fixed by the Government.

This indicated that the Government was not serious about implementation of the recommendations made by the Board to restore and conserve quality of the water bodies.

2.4.12 Air quality monitoring

The Air Act empowers TSPCB to make any order for the prevention, control or abatement of emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or an aircraft.

2.4.12.1 Partial functioning of Ambient air quality stations

The CPCB initiated (1984) National Air Quality Monitoring Programme (NAMP) with the objective to determine status and trends of ambient air quality and to ascertain whether the ambient air quality standards are violated or not. The CPCB instructed (March 2012) TSPCB to report daily data of air monitoring for ten parameters prescribed under the NAMP.

It was decided by TSPCB that the location of the two air monitoring stations would be fixed at the office complex of the Board and Chandrapur Bus stand (both located in Agartala). For the purpose, TSPCB procured (October 2013 and February 2014) Respirable Dust Sampler (five numbers) and Particulate Matter 2.5 Analyser (five numbers). TSPCB informed (August 2015) that it had established station at its office complex and another station at Chandrapur was yet to be operationalised. It was seen that the air quality tested (13 March 2015) at the office complex of TSPCB represented status of only four parameters (tests) (*viz.* PM_{10}, $PM_{2.5}$, Sulfur Dioxide and Nitrogen Dioxide) out of the 10 essential parameters prescribed under NAMP. However, the test report of the above four air parameters was found to be within the prescribed standard. Reason for non- conducting of remaining six tests [58]was neither stated nor found on record. Moreover, daily monitoring data, though specifically called for (August 2015), was not furnished to audit.

[58] NH_3, Lead, Nickel, Arsenic, Bap and Benzene.

After this being pointed out, TSPCB replied (November 2015) that it had sent a letter to the CPCB for finalisation of another station at Chandrapur. After getting reply from CPCB the monitoring of air quality under NAMP would also be started. It further added that, for analysing all the 10 parameters required high-end equipment for which a proposal was sent to the CPCB but no fund had been approved/ allotted and it was trying to explore other sources for establishment of modern high-end equipment to serve the required ten parameters.

During exit conference (November 2015) it was informed that the Board did not send the monitoring data/ reports but reasons for the same could not be furnished to audit.

Thus, the fact remained that the air quality monitoring station at office complex of the Board could not be made fully functional as the six out of 10 air parameters still remained un-tested (November 2015). Moreover, the Board did not start reporting of data of air pollutants to the CPCB from the air quality monitoring station even after lapse of three years since the instruction was issued by the CPCB in that regard.

2.4.12.2 Compliance of provisions of Air Act on vehicular smoke emission

Section 20 of Air Act provides that with a view to ensuring that the standards for emission of air pollutants from automobiles laid down by the State Board are complied with, the State Government shall, in consultation with the State Board give such instructions as may be deemed necessary to the concerned authority in charge of registration of motor vehicles under the Motor Vehicles Act, 1939 and such authority shall, notwithstanding anything contained in that Act or the Rules made thereunder be bound to comply with such instructions.

It was decided in a joint meeting of TSPCB and the Transport Department (July 2012) that periodic inspections of the emission test centres would be carried out by TSPCB along with Motor Vehicle Inspectors to ensure veracity of Pollution Under Control (PUC) certificates and also to ascertain the quality and efficacy of equipment used by the emission test centres. TSPCB replied (August 2015) that joint inspections with Transport Department were made. However, details of inspections carried out and results thereof, though called for (August 2015), were not furnished.

TSPCB stated (November 2015) that matter was taken up with the Transport Department to carry out inspections of all emission test centres soon.

Thus, TSPCB did not monitor the functions of Transport Department regarding compliance of standards for emission of air pollutants from automobile as envisaged in the Air Act.

2.4.13 Online continuous emission and effluent monitoring mechanism not implemented by highly polluting industries

To strengthen the monitoring mechanism for effective compliance through self regulatory mechanism, the CPCB instructed (February 2014) all State PCBs to issue

directions to industries belonging to 17 categories[59] of highly polluting industries, Common Effluent Treatment Plants (CETPs) and Common hazardous waste and biomedical waste incinerators. As per these directions, these industries were to install online continuous stack emission and effluent monitoring system to measure the parameters mentioned in the consent certificates by 31 March 2015 and to install and upload the online emission and effluent monitoring data at State PCBs and CPCB server in a time bound manner but not later than 31 March 2015.

Simultaneously, the CPCB also instructed the State PCBs to install the necessary software and hardware in their headquarters for centralised data collection, analysis and taking corrective action.

Test-check of records revealed that TSPCB identified 12 units (ten Gas Thermal Power plants, one incinerator and one small scale steel factory) in that category and issued (July 2014 and December 2014) the above directions to the units for effective monitoring and self-compliance by March 2015. However, it was noticed from a status report on implementation of the system submitted (March 2015) by TSPCB to the CPCB that no unit {except Tripura Power Company Limited (TPCL) of Oil and Natural Gas Commission at Palatana} had installed the system. Besides, TSPCB had not installed necessary software and hardware for data collection and analysis (November 2015). Further, the CPCB directed (March 2015) the SPCB to withdraw the consent to operate and forfeit the bank guarantee if the industry failed to install online monitoring system by June 2015. Audit also observed that even if the industries like TPCL had installed the online monitoring devices, TSPCB could not link online with those devices due to non-availability of server with it.

While comparing the status of implementation of online monitoring system, it was seen that for the first time in India, Odisha State Pollution Control Board had implemented Real Time Data Acquisition System in September 2012 to capture and transmit Ambient Air Quality Monitoring System, Stack Monitoring System and Waste Water Monitoring System data from different plants in Odisha over GPRS[60] network. Further, some of the State PCBs like Tamilnadu and Gujarat PCBs had already included specific conditions for installation of continuous emission and effluent monitoring systems in the consent to operate order issued to the 17 categories of highly polluting industries.

While agreeing with the facts, TSPCB informed (August 2015 and November 2015) that it would set up its own server and during exit conference it was informed

[59] Distillery including Fermentation industries, Sugar (excluding khandsari), Fertilizer, Pulp and Paper, Chlor Alkali, Pharmaceuticals (basic) (excluding Formulation), Dyes and Dye intermediate, Pesticides (Technical) (excluding Formulation), Oil Refinery (Mineral Oil and Petro Refineries), Tanneries, Manufacture of Petrochemicals, Cement, Thermal Power Plants, Iron & Steel (Involving processes from ore/scrap, and Integrated Steel Plants), Zinc Smelter, Copper Smelter and Aluminium Smelter.

[60] General packet radio service (GPRS) is a packet oriented mobile data service on the 2G and 3G cellular communication system's global system for mobile communications.

(November 2015) that action would be taken against the defaulting industries as per CPCB's instructions.

However, TSPCB did not take any action to implement the online continuous emission and effluent monitoring mechanism in respect of 17 categories of highly polluting industrial units and thereby it ignored the directions issued by CPCB in this regard.

2.4.14 Municipal solid waste management

2.4.14.1 Rules for municipal solid waste management not followed

As per Rule 4 of Municipal Solid Waste (Management and Handling) Rules, 2000 (MSW Rules) notified by the Central Government under EP Act, every municipal authority is responsible for implementation of the provisions of these Rules and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes within its territory. The municipal authority or an operator of a facility should obtain authorisation from the Board for setting up waste processing and disposal facility including landfills. Further, Rule 6 of MSW Rules provides that the State PCB shall monitor the compliance of the standards regarding ground water, ambient water, leachate quality and the compost quality including incineration standards. The State PCB was also required to issue directions under Section 5 of EP Act to municipal authorities for ensuring full coverage of waste collection, segregation, transportation, treatment and disposal in accordance with the Rules.

It was noticed from the latest annual report (year 2013-14) on MSW management furnished (September 2014) by TSPCB to the CPCB that 407 tonnes of municipal solid waste had been generated per day in the State under the jurisdictional areas of 20 ULBs (One Municipal Corporation, 10 Municipal Councils and nine Nagar Panchayats). Scrutiny of annual reports revealed the following:

- 15 out of 20 ULBs did not obtain authorisation from the Board for setting up waste processing and disposal facility including landfills.
- MSW was being dumped at open places without any treatment which was hazardous to human beings and ecosystem.
- The ULBs were not complying with the provisions of the MSW Rules and there was no improvement in MSW management in the State during last five years as shown in A**ppendix 2.4.6.**

TSPCB stated (November 2015) that in order to monitor the compliance of standard regarding ground water, ambient air, leachate quality and compost quality including incineration standard, it had entrusted a project titled " Status of Municipal Solid Waste Management in Tripura" to the National Institute of Technology (NIT), Agartala in the year 2012. However, the said project was not finalised by the NIT, Agartala (November 2015).

Thus, the fact remained that none of the ULBs segregated and processed[61] the MSWs as per MSW Rules as it can be seen in **Appendix 2.4.6** and all kinds of MSW were disposed by open dumping instead of proper and secured land filling[62] as per detailed procedure laid down in Schedule III of MSW Rules.

2.4.15 Bio-medical waste management

2.4.15.1 Health Care Establishments (HCEs) functioning without authorisation

According to Rule 8 of the Biomedical Waste (Management and Handling) Rules, 1998 (BMW Rules) notified by the Central Government under EP Act, every occupier of an institution generating, collecting, receiving, storing, transporting, treating, disposing and/or handling bio-medical waste (BMW) in any manner (except clinics, dispensaries, pathological laboratories, blood banks providing treatment/service to less than 1,000 patients per month), should make an application to the Board for grant of authorisation.

It was noticed from the latest annual report (calendar year 2014) on BMW management submitted (March 2015) by TSPCB to the CPCB that 1258 Health Care Establishments (HCEs) having more than 1,000 patients per month in the State were required to obtain authorisation from the TSPCB. TSPCB granted authorisation (upto December 2014) to 564 HCEs which had applied for authorisation and remaining 694 HCEs did not apply to the Board for authorisation[63].

TSPCB replied (August 2015) that most of the 694 HCEs were Government Health Sub Centres which generated negligible amount of BMW and hence, were not taken into account. However, reply of the Board was not tenable as all HCEs of every size having more than 1000 patients per month were required to obtain the authorisation as per BMW Rules, which was also mentioned in the Board's annual reports on BMW management.

TSPCB further stated (November 2015) that it had issued number of advertisements in the local newspapers for obtaining authorisation from TSPCB by the HCEs which had not obtained authorisation.

Thus, unauthorised operation of 694 HCEs left the scope of collecting, receiving, storing, transporting, treating, disposing and/ or handling BMW in a manner, which was not being monitored by TSPCB.

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[61] As per Schedule II of MSW Rules, bio-degradable wastes should be processed by composting, vermicomposting, anaerobic digestion or any other appropriate biological processing for stabilisation of wastes.

[62] As per Schedule II of MSW Rules, Land filling should be restricted to non-biodegradable, inert waste and other waste that are not suitable for recycling or for biological processing. Land filling of mixed waste should be avoided unless the same is found unsuitable for waste processing.

[63] Permission granted by the Pollution Control Boards for the generation, collection, reception, storage, transportation, treatment, disposal and/or any other form of handling of bio-medical waste in accordance with BMW Rules and any other guidelines issued by the Central Government.

2.4.15.2 BMW Rules, regarding treatment and disposal of BMW not complied with

Schedule I of Rule 5 of BMW Rules provides treatment and disposal options of different categories bio-medical wastes (BMW). Scrutiny of the annual report of BMW management for the year 2014 furnished (March 2015) by TSPCB to the CPCB revealed the following:

- 1336.50 kg solid BMW was generated per day in the State of which 1129.59 kg waste per day was reported to be treated by using incinerator and deep burial method and thus, the balance 206.91 kg/day remained untreated.
- Solid BMW of Category No. 4, 7 and 10 as per Schedule I of BMW Rules (i.e. waste sharp, solid waste and chemical waste) generated by 207 HCEs at Agartala was disposed of using incinerator although disposal of these items through incineration was not permissible under Schedule I of BMW Rules.
- All categories of solid BMW generated by the HCEs situated outside Agartala were disposed of by deep burial method only; though deep burial method was permissible only for BMW Category No. 1 and 2 (i.e. human anatomical waste and animal waste) under Schedule I of BMW Rules.

Thus, the HCEs did not comply with the treatment and disposal method of BMW for regulating environmental pollution as envisaged in the BMW Rules.

2.4.15.3 Liquid waste treatment facilities

According to Schedule V of the BMW Rules, the effluents generated from hospitals should conform to the specified standards of pH, suspended solids, oil and grease, BOD, and Chemical Oxygen Demand. These standards were applicable to those hospitals which were either not connected to public sewers or connected with sewers without terminal Sewage Treatment Plants (STPs).

It was noticed that only two[64] out of the total 564 authorised HCEs had installed the STPs. Out of these two treatment plants, the plant of Agartala Government Medical College & GB Pant (AGMC & GBP) hospital had become dysfunctional last year due to theft of motor and pump as intimated (June 2015) by the hospital authorities to audit.

[64] Agartala Government Medical College and GB Pant Hospital and ILS Hospital at Agartala

Non-functional liquid waste treatment plant at AGMC & GBP Hospital

TSPCB replied (November 2015) that the AGMC & GBP Hospital and IGM Hospital would construct STPs to enable liquid waste treatment facility. After completion of establishment of those plants, the Board would collect and assess the pollution load of the treated effluent sample.

Thus, the fact remained that the liquid waste generated by the HCEs remained largely untreated for want of STPs.

2.4.15.4 Common Bio-medical Waste Treatment and Disposal Facility

A Common Bio-medical Waste Treatment and Disposal Facility (CBWTF) was set up for treatment of BMW generated in all healthcare units to cater upto 10,000 beds situated within a radius of 150 km so that adverse effects of waste could be reduced. The treated waste was to be finally sent for disposal in a landfill or for recycling process as per guidelines of CBWTF.

The State had only one CBWTF at Hapania near Agartala operated by the Agartala Municipal Corporation (AMC). The BMW generated by the HCEs at Agartala was being burnt by the incinerator installed in the CBWTF.

Test-check of records revealed the following deficiencies in the operation of CBWTF:

- The CBWTF should have facilities like incineration, autoclaving/ microwaving/hydroclaving, shredder, container, effluent treatment plant, etc. However, it had only the incineration facility.
- As per Schedule V of BMW Rules, suitably designed Air Pollution Control Device (APCD) should be installed/retrofitted with the incinerator to achieve the emission standards prescribed in the Rules. However, APCD was not installed in the incinerator. The Board neither inspected the incinerator nor conducted stack emission test to assess the extent of air pollution through incinerator.
- As per Schedule V of BMW Rules, the incinerator ash was to be disposed off in municipal landfill and toxic metals in incineration ash should be limited within the regulatory quantities as defined in the Hazardous Waste (Management and

Handling) Rules, 1989 which was later superceded by Hazardous Waste (Management, Handling and Trans-boundary) Rules, 2008. However, TSPCB had never tested the limit of Hazardous Waste present in the incinerator ash which was being burried in the site nearby to the incinerator and thus possibility of presence of hazardous toxic metals in the incineration ash as well as in the environment of burial site could not be ruled out.

- The incinerator belongs to red category activities and thus, the AMC being the operator of incinerator was required to obtain consent to operate annually under Water and Air Acts. However, the AMC did not apply for the consent to operate during 2010-15.

Further, as per EP Act, TSPCB should issue directions to the AMC to comply guidelines regarding operation of CBWTF, which was framed under BMW Rules. However, TSPCB did not issue any such directions to the AMC in the period 2010-15.

After this being pointed out, TSPCB replied (November 2015) that the matter would be taken up with AMC.

2.4.15.5 Prescribed reporting mechanism not complied with

Rule 10 of BMW Rules provides that every occupier/operator should submit an annual report to the Board by 31st January every year, providing information about the categories and quantities of BMW handled during the preceding year. The Board should send this information in the compiled form to the CPCB by 31 March every year.

Test-check revealed that the HCEs (including three highest BMW generators[65] of the State having more than 500 bed capacity) did not submit the annual reports to TSPCB regularly during 2010-15. On this being pointed out, TSPCB informed (June 2015) that list of such defaulting HCEs would be compiled.

TSPCB replied (November 2015) that for effective implementation of the BMW Rules and also for identification of the defaulting HCEs, it would execute a project titled “Status of BMW Management in Tripura” with the financial assistance of the CPCB. Based on the data compilation, interpretation and identification of defaulting HCEs, it would be possible to improve prescribed reporting mechanism and to take policy decision for compliance of BMW Rules.

Thus, the fact remained that in absence of compiled data of defaulting HCEs, the Board was not in a position to take action against the defaulting HCEs as per EP Act.

[65] Agartala Government Medical College and GB Pant Hospital (furnished annual report of the year 2010 only), Indira Gandhi Memorial Hospital (annual reports not furnished for the years 2010 to 2015) and Tripura Medical College & BR Ambedkar Memorial Teaching Hospital (annual reports not furnished for the years 2010 to 2015).

2.4.16 Hazardous waste management

2.4.16.1 Implementation of Hazardous Waste (Management, Handling and Trans-boundary) Rules, 2008

According to Hazardous Waste (Management, Handling and Trans-boundary) Rules, 2008 (HWMHT Rules) notified by the Central Government under EP Act, the State PCBs are to perform inventorisation of hazardous wastes, grant and renew authorisation, register and renew registration of recyclers/re-processors, monitoring compliance of various provisions and conditions of authorisation, implementation of programmes to prevent/reduce/minimise the generation of hazardous wastes and initiate action against the violators. Further, the HWMHT Rules also provides that the occupier[66] generating hazardous wastes and operator of the facility for disposal of hazardous waste shall maintain records of such operations and the occupier/operator of a facility shall send annual returns to the State PCB.

Scrutiny revealed that:

- TSPCB did not prepare inventory required under HWMHT Rules. It had no information regarding type and quantum of hazardous waste that was generated, treated and disposed by the HW generating units.
- Nine industrial units[67] were granted authorisation for management of hazardous waste under HWMHT Rules. However, the units did not furnish the annual returns during the years 2010-15.

TSPCB replied (August 2015) that a project on inventory of hazardous waste in Tripura showing database on hazardous waste generating industrial units, classification of industries based on type and category of hazardous waste, the unit wise quantum of hazardous waste generation, etc. would be taken up. TSPCB further stated (November 2015) that the MoEF, GoI would amend the HWMHT Rules and inventory work of Hazardous Wastes generating industries would be prepared after amendment.

The fact, however, remained that TSPCB did not maintain inventory of HW generating units and the database on HW generation, disposal etc. in the State. Further, due to not furnishing of annual reports by the HW generating units to the TSPCB, the details regarding type, quantity, storage, transportation and disposal of HW by those units, could not be ascertained.

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[66] As per HWMHT Rules, **"**occupier**"** in relation to any factory or premises, means a person who has, control over the affairs of the factory or the premises and includes in relation to any hazardous waste the person in possession of the hazardous waste;

[67] Three oil and gas drilling units generating HW like drill cutting containing oil, drilling muds, etc., two petrol pumps generating oil sludge, one unit storing outdated medicine generating toxic waste, one rubber processing unit storing Ammonia, one LPG bottling unit and one oily sludge generating used oil processing unit.

2.4.17 Evaluation study on impact of pollution conducted by TSPCB through external agencies

2.4.17.1 Environment Management Plan not implemented at Bodhjungnagar Industrial Growth Centre

The Bodhjungnagar Industrial Growth Centre (BIGC) in West Tripura District is the largest Industrial Estate of Tripura, with an area of 238.53 acres comprising industries such as electrical & electronic, pharmaceutical, rubber, chemical, tobacco, rice mill, cold storage, brick kilns, fertilizer & pesticides, grill and steel fabrication, stone crushers, etc. TSPCB entrusted (February 2011) the NEERI (National Environmental Engineering Research Institute, Nagpur) for preparation of study report on Environmental Impact Assessment (EIA) in BIGC area due to industrial activities along with Environmental Management Plan (EMP) for mitigating the adverse impacts. The report was submitted in August 2013. It was mentioned in the study report that river water and pond water within 10 km radius of BGIC was moderately polluted. Further, the rubber industries (three numbers) had ETPs and two out of three ETPs (except ETP of M/s Brite Rubber) were functioning inadequately. The waste water of rubber industries required adequate treatment and recycling/safe disposal in the nearby water bodies/land to prevent environmental hazards. It was also reported that uncontrolled dumping of wastes might pollute the land, water bodies in future. The polluted surface water might reach the ground water bodies due to leaching thereby affecting the nearby villages. Based on the impacts identified, the NEERI recommended (August 2013) in the study report a detailed conceptual EMP for (i) air environment (viz. operation of emission control equipments within specified design parameters, regular monitoring of stack emission, development of green belt with native plant species, etc.), (ii) noise environment (viz. procurement of low noise level equipment, etc), (iii) land environment (viz. disposal of solid waste in lined pit or engineered landfills etc.), (iv) water and waste water environment (viz. establishment of CETP, proper sewage treatment etc.), (v) solid waste environment (viz. disposal of solid waste by proper land filling, reuse, recycling etc.), (vi) biological environment (viz. minimising the discharge of gaseous, liquid and particulate wastes into the atmosphere, etc.), (vii) socio-economic environment (viz. employment of local people, organise awareness campaign, medical chek-up camp to the local population, etc.) and (viii) odour management (viz. development of green belt around the waste water pit used for disposal of waste water from rubber industries, use of charcoal/ activated carbon mask, etc.).

However, it was noticed that even after lapse of more than two years after the submission of study report, the EMP was implemented for mitigation of pollution and environmental impact as of November 2015.

TSPCB replied (August 2015 and November 2015) that meetings with the stakeholders for implementation of EMP would be organised shortly.

Thus, even after lapse of more than two years of the submission of study report by the NEERI in August 2013, the EMP was not implemented for mitigation of adverse environmental impact due to pollution in BIGC area (November 2015).

2.4.17.2 Degradation of geo-environmental status of the rivers

To investigate the pollution status and extent of physical deterioration of rivers Howrah and Gumti, the TSPCB in collaboration with Department of Geography and Disaster Management, Tripura University prepared (Howrah river: January 2012 and Gumti river: December 2012) project reports on geo-environmental status of these rivers through extensive field level survey.

Scrutiny of the project reports revealed that the water of these rivers was polluted by human activities and various measures were proposed to be taken mainly from the administrative side for prevention of pollution and restoration of water quality in the rivers as shown below:

- stop deforestation in the catchment area causing declining of water level;
- stop lifting of uncontrolled excess water for irrigation purposes, etc.;
- shift brick fields to at least one km. away from the river course;
- construct waste water treatment plants; and
- stop dumping of solid waste/use of chemical fertilisers/disposal of toxic substances, etc.

TSPCB replied (November 2015) that the main objective to take up the project was to generate a baseline for taking conservation programme of both rivers and it had prepared a project proposal for conservation of all the ten major rivers. It further added that Forest Department, Government of Tripura also submitted similar treatment plan to the State Government and GoI for the major rivers and consequent work mode would be implemented after finalisation of both the projects.

However, even after lapse of more than two years since preparation of the project reports in the year 2012, no detailed action plan in co-ordination with the State administration had been formulated by TSPCB for implementation of the proposals as envisaged in the project reports.

Audit Objective 3: Whether fund management by the Board was efficient to secure optimum utilisation?

2.4.18 Under utilisation of financial resources in pollution control measures

The receipts of TSPCB consist of grants received from the Government of India (GoI) and State Government, fees for issuing consent and authorisation, interest on investments and other miscellaneous receipts as given in the following table**:**

Table No. 2 4.3

(₹ in lakh)

Year	Opening balance	Funds received from					Total funds available	Total expenditure	Closing balance
		GoI	State	Misc. receipt	Bank interest	Own revenue			
2010-11	1441.59	38.91	93.06	7.37	61.39	16.67	1658.99	160.03	1498.96
2011-12	1498.96	119.69	52.56	3.35	93.61	21.34	1789.51	207.10	1582.41
2012-13	1582.41	78.24	97.50	31.94	171.33	21.99	1983.41	397.35	1586.06
2013-14	1586.06	88.80	72.75	12.46	8.05	45.29	1813.41	284.06	1529.35
2014-15	1529.35	76.31	108.98	19.42	174.46	17.23	1925.75	324.31	1601.44

(**Source**: Annual Accounts of TSPCB and information provided by TSPCB)
Note: Figures of 2013-14 & 2014-15 are unaudited

The utilisation of available funds by TSPCB is provided in the following table**:**

Table No. 2.4.4

(₹ in lakh)

Year	Expenditure on				Total expenditure	Percentage of expenditure on pollution control measures (Col.4 *plus* Col.5) over total available fund during the year
	Salary & other administ -rative.	Creation of capital asset	Laboratory equipment	Programme implementation		
(1)	(3)	(3)	(4)	(5)	(6)	(7)
2010-11	65.91	15.79	36.79	41.54	160.03	4.72
2011-12	67.54	15.50	0.23	123.83	207.10	6.93
2012-13	115.04	2.08	34.93	245.30	397.35	14.13
2013-14	137.50	13.26	53.82	79.48	284.06	7.35
2014-15	148.02	5.25	43.79	127.25	324.31	8.88

(**Source**: Annual Accounts of TSPCB and information provided by TSPCB)
Note: Figures of 2013-14 & 2014-15 were unaudited

From the above tables, it would be seen that TSPCB utilised only 4.72 *per cent* to 14.13 *per cent* of yearly available funds on pollution control measures. It was also noticed that the unutilised funds had been accumulated year after year and TSPCB invested the funds in Fixed Deposits (FD). Out of unspent balances of ₹ 16.01 crore as of 31 March 2015, ₹ 15.23 crore (95.13 *per cent*) had been invested in FDs.

The detailed break-up of unutilised funds like unspent balances of GoI/ State fund, misc. receipts, accrued bank interest, own source of revenue etc. were not furnished to audit, though called for (July 2015). TSPCB informed (August 2015) that the huge accumulation of funds was mainly due to collection of consent fees, Bio-Medical authorisation fees and bank interests.

TSPCB further replied (November 2015) that it had provided tipper trucks to the ULBs for effective MSW management and was providing grants to the NGOs for creating mass awareness. However, it remained silent about the non-utilisation of accumulated funds for addressing major issue of non-availability of required manpower and lab equipment for its proper functioning as discussed in the succeeding **Paragraph 2.4.19**.

Thus, the fact remained that TSPCB could not utilise the accumulated funds for setting up of laboratories in the zonal offices, procurement of requisite equipment for

the Central Laboratory at Agartala and for better management of municipal and bio-medical waste, etc.

Audit Objective 4: Whether adequate man power and effective internal control mechanisms exist?

2.4.19 Manpower management

Efficient functioning of an organisation depends upon the availability of requisite manpower and proper management of available manpower. Out of sanctioned post of 35, eight posts remained vacant during 2010-15 as detailed in **Appendix -2.4.7.**

Test-check of records revealed that CPCB requested (March 2015) all State PCBs to furnish information regarding the number of officials required to take care of monitoring and enforcement of environmental rules/laws for consideration of demands of grants of MoEF by Parliamentary Standing Committee. Accordingly, TSPCB assessed the manpower requirement and sent (June 2015) a proposal for creation of additional 65 posts[68] with fund requirement (salary support) of ₹ 16.80 crore for the years 2015 to 2020 wherein it was stated that acute shortage of manpower was causing serious degradation in the performance in many environmental thrust areas including monitoring and enforcement of various environmental rules and norms.

TSPCB informed (November 2015) that problem of lax monitoring and enforcement of various environmental rules and norms would be solved after creation of these additional posts with the financial support of GoI. However, the fact remained that TSPCB had assessed its manpower requirement only in June 2015 despite establishment of zonal offices in August 2012 and its admission in failure of conducting required number of inspections, timely issue of consents to the industrial units and making its zonal offices/ laboratories functional due to lack of manpower.

The Board, while accepting the audit observation, stated in the exit conference (November 2015) that there was no proper distribution of works among the Scientific, Technical and Ministerial staff and rational distribution of works among the different category of staff according to their designation, qualification and expertise in different fields of activities would be done after proper assessment.

2.4.20 Internal control mechanisms

2.4.20.1 Annual reports

Under Section 39 (2) of the Water Act, read with Section 35 (2) of the Air Act, every State Board should, during each financial year, prepare an Annual Report giving full accounts of the activities undertaken during the previous financial year and the copies thereof should be forwarded to the State Government within four months from the last date of the previous financial year and that the Government should cause every such

[68] 17 scientific posts, 26 technical posts and 22 official posts including one Law Officer. For head office (17 posts) and three Zonal offices (48 posts)

report to be laid before the Legislature within a period of nine months from the last date of the previous financial year.

It was seen that the Board did not prepare the Annual Reports for 2010-11, 2011-12 and 2014-15. Annual Reports for the years 2012-13 and 2013-14 were prepared but the same were yet to be placed before the legislature (July 2015).

After this being pointed out, TSPCB informed (November 2015) that it would prepare and publish the Annual Report for 2014-15 by November 2015.

Thus, the activities undertaken by TSPCB remained un-discussed in the Legislature by the public representatives due to non-submission of Annual Reports to the Legislature as required under Water Act.

2.4.20.2 Internal audit

Internal auditing is an independent appraisal function established within an organisation to examine and evaluate its activities as a service to the organisation. The objective of internal audit is to assist members of the organisation in the effective discharge of their responsibilities.

It was noticed that TSPCB had no internal audit wing of its own and Audit Directorate under the State Finance Department responsible for internal audit of the State Government Departments/Organisations also did not conduct audit of TSPCB in the period 2010-15.

TSPCB replied (August 2015) that it communicated with the Audit Directorate of Finance Department, Government of Tripura for conducting internal audit of TSPCB.

2.4.20.3 Inadequate number of Board meetings

Section 8 of Water Act stipulated that the Board shall meet at least once in every three months. It was noticed that during 2009-14, the Board met only nine[69] times as against the minimum requirement of 20 meetings.

Non-conduct of meetings of the Board as per stipulated norms indicated that its functioning was not periodically reviewed.

TSPCB replied (November 2015) that due to election process relating to Lok Sabha, Assembly Election, ADC election, Panchayat Election, etc. the Board meetings could not be held as per stipulated norms. However, the reply of the Board is not tenable as election process cannot be a persistent hindrance in the conduct of meetings of the Board.

2.4.21 Online consent management and monitoring system

Test-check of records revealed that as per request of TSPCB (March 2013), the National Informatics Centre (NIC), New Delhi submitted (May 2013) a proposal with the project cost of ₹ 6.68 lakh for customisation and implementation of Online Consent Management & Monitoring System (OCMMS) for TSPCB. OCMMS was

[69] Once in 2010-11, twice in 2011-12, thrice in 2012-13, twice in 2013-14 and once in 2014-15.

proposed as a web based generic application software package developed by the NIC, New Delhi for automating the workflow associated with consent management and monitoring system in the State PCBs. The system was to allow online submission of applications for consent, authorisation, etc. and was expected to reduce processing time of application and related paper work, which in turn would have enhanced transparency in the existing application processing mechanism.

As per the project proposal, NIC was to start the work on payment of ₹ 6.68 lakh and complete the project within five months. Accordingly, TSPCB paid (June 2013) ₹ 6.68 lakh to NIC, but the project scheduled to be completed by November 2013 was not completed even after lapse of more than two years (November 2015).

On this being pointed out, TSPCB informed (August 2015) that it was in the process of providing information to the NIC, New Delhi for customisation of the OCMMS. TSPCB further informed (November 2015) that the matter would be pursued by the NIC for early implementation of the project.

However, the fact remained that due to non-completion of the online OCMMS project the efficiency and transparency in processing of application for consent remained un-achieved.

2.4.22 Public grievances on environmental issues

In response to the advertisement published (July 2015) in local daily newspapers and website by Office of the Accountant General (Audit), Tripura requesting General Public to offer their views on certain environmental issues, one Shri Sujit Kumar Paul, a resident of North Gate of Rajbari, Agartala responded and raised (July 2015) the following issues:

- dumping of cow dung as fish feed in two water bodies situated within the AMC area (namely, the lake opposite to Jagannath Temple and Dimsagar lake), leased out to the private parties for fishery purpose by AMC, which causes water borne diseases to the children who came to learn swimming in these lakes;
- noise pollution created through use of amplifiers in marriage ceremony halls;
- plastic fumes and noise generated from one pipe manufacturing unit at Golbazar, Agartala and
- open slaughter and selling of meat on the road side at various locations at Agartala; and
- foul odour generated from garbage carriers of AMC.

TSPCB and AMC were requested (July 2015) to offer their comments on the above issues. In reply, TSPCB stated (August 2015) that all the issues would be assessed and remedial measures would be taken but the AMC did not comment upon those issues.

TSPCB further stated (November 2015) that all the issues were redressed in co-ordination with the AMC. However, the AMC did not furnish any comment on the matter as of November 2015. Thus, the claims of TSPCB could not be ascertained.

Moreover, Shri Sujit Kumar Paul again informed (November 2015) audit that no action was taken to redress the issues.

2.4.23 Good practices

TSPCB adopted the following good practices to mitigate the environmental pollution in the State:

- TSPCB approached the State Government for imposing ban on plastic carry bags and the State Government issued (July 2013) order of complete ban on manufacture, import, storing, transport, sale and use of plastic carry bags in the State. For effective implementation of the ban order, the TSPCB took various steps like conducting review meetings with the officers of State Administration authorised to implement the ban order, publishing advertisement in local newspapers/ souvenirs/ journals appealing to the common people to refrain from use of plastic bags.
- TSPCB conducted classes on environmental subjects in the National Institute of Technology, Tripura Institute of Technology, Tripura University, Degree Colleges and Schools. Students/ research scholars were also allowed to carry out their study /research work in the laboratory of TSPCB free of cost under the supervision of Board officials.

2.4.24 Conclusion

TSPCB, being the main agency for the enforcement of environment laws and responsible for formulation of policy for prevention, control and abatement of pollution did not conduct any survey to identify the polluting industries in the State and had not drawn up a comprehensive plan for preventing and controlling water and air pollution in the State. TSPCB's laboratory at Agartala was functioning without accreditation and without required testing facilities. The laboratories at zonal offices could not be made operational due to lack of infrastructural facilities. Large numbers of industrial units were operating in the State without renewal of consent. There was substantial shortfall in conducting inspections of even highly polluting 'Red' category industries. TSPCB could not establish the ambient air quality monitoring stations with requisite testing facilities for analysing all the essential parameters prescribed under NAMP. No action plan as required under Water Act was prepared by TSPCB for restoring the water quality of the rivers and water bodies. The municipal bodies did not comply with the provision of Municipal Solid Waste (Management and Handling) Rules, 2000 and TSPCB did not take any action under EP Act. Out of identified 1258 Health Care Establishments (HCEs), 694 HCEs did not obtain authorisation from TSPCB and there were deficient bio-medical waste treatment and disposal facilities. Financial management of TSPCB was deficient as it could utilise only 4.72 *per cent* to 14.13 *per cent* of yearly available funds on pollution control measures. Inadequate manpower adversely affected the functioning of TSPCB. The TSPCB had no internal audit wing of its own and Audit Directorate under the State Finance Department

responsible for internal audit of the State Government Department/ Organisations also did not conduct audit of TSPCB during the period 2010-15.

2.4.25 Recommendations

TSPCB should consider implementing the following recommendations:

- conduct survey and prepare the inventory including categorisation of polluting industrial units and HCEs;
- take immediate steps to complete the extensive investigation of arsenic contamination in ground water and take remedial measures in a time bound manner;
- take action against the defaulting industries operating without consent and also to avoid the practice of delay in issuing consents to the industrial units;
- regular inspections and analysis of effluents should be conducted and follow up action initiated against industries particularly in respect of highly polluting 'Red' category industries;
- maintain data base of industrial units operating without ETPs and operating with non-functional/ partly functional ETPs for taking action against them under Water Act;
- action plan as required under Water Act should be prepared and implemented by TSPCB for restoring the water quality of the rivers and water bodies.
- TSPCB should make the ambient air quality monitoring stations fully operational for generating data on daily basis for all the required air parameters;
- issue directions to the municipal bodies and health care establishments for violating the rules regarding handling and management of municipal solid waste and bio-medical waste and also to take action against them for violation of Waste Management Rules under the provisions of EP Act; and
- adequate manpower should be provided at Headquarters and in zonal offices to facilitate better enforcement of various Acts and Rules and effective functioning of TSPCB.

PUBLIC WORKS DEPARTMENT (Roads and Buildings)

2.5 Avoidable expenditure

Adoption of incorrect parameters in computation of design life resulting in execution of richer specifications of Bituminous Macadam (BM) instead of required Open Grade Premix Carpet (OGPC) with seal coat caused avoidable expenditure of ₹ 6.59 crore on construction of 15.90 Km road from Maharani to Amarpur.

Para 2.5 of CPWD works Manual, 2007 provides that an officer while according Technical Sanction (TS) of work estimate is responsible for soundness of its design and specification. According to Indian Road Congress (IRC: 37 2001[70] and IRC: 81-1997[71]) specifications, the crust (thickness of pavement) and type of bituminous course are designed on the basis of design traffic in terms of Million Standard Axle (MSA)[72] and California Bearing Ratio (CBR)[73] of sub-grade[74]. Wherever the designed traffic is less than two MSA and CBR of sub-grade is upto 10 *per cent*, provision of only 20 mm Open Graded Premix Coat (OGPC) with seal coat should be provided as a bituminous wearing course and Bituminous Macadam (BM) is not required. Further, Para 3.3.3.2 of IRC: 37 2001 *inter alia* provides that design life for pavements should be considered for a term of 15 years.

The work for widening, strengthening and improvement of road from Maharani to Amarpur (15 Km) was awarded (February 2009) to M/s GPT Infraprojects Ltd. @ 29 *per cent* above the estimated cost of ₹ 13 crore based on lowest tender under cost plus basis including preparation of Detailed Project Report (DPR), structural drawing, survey, etc. The Chief Engineer (CE), PWD (R&B) accorded (November 2009) technical sanction of (DPR) for ₹ 19.20 crore (including agency's profit) prepared by M/s GPT Infraprojects Ltd. Meanwhile, the work commenced in September 2009 and was in progress (March 2015). Total value of work done upto 18th Running Account (RA) Bill was ₹ 20.84 crore against which M/s GPT Infraprojects Ltd. was paid ₹ 20.72[75] crore till March 2014**.**

Scrutiny of records (March 2015) of Executive Engineer, Amarpur Division, PWD, (R&B) revealed that M/s GPT Infraprojects Ltd. had prepared the DPR based on Indian Road Congress Standards (IRC: 37 2001) specification considering the design life of 20 years instead of 15 years from the date of opening to traffic. In this connection, audit observed that while conducting traffic survey no significant heavy commercial traffic had been recorded and traffic mostly comprised of two wheelers

[70] Guidelines for the design of flexible pavements.
[71] Strengthening of flexible road pavement using Benkelman Beam Deflection Technique
[72] Million Standard Axles denotes load of traffic on road
[73] California Bearing Ratio (CBR) denotes strength of soil. It is the ratio of material resistance or the unit load on the piston for 2.54 mm of penetration to standard unit load for well graded crushed stone for 2.54 mm penetration.
[74] Sub-grade is top 30 cm to 50 cm layer of earth work in roads
[75] Amount already paid upto 17th RA bill (i.e. ₹ 19,72,10,570/-) + 18th RA 1st part payment of ₹ 1,00,00,000/- = ₹ 20,72,10,570/-

and a few light commercial vehicles. During the survey made by M/s GPT Infraprojects Ltd. it was noticed that average daily commercial vehicles were only 82[76]. Therefore, according to the IRC guidelines, the commercial vehicles of the road after completion of the project worked out to 95[77]. Audit also observed that M/s GPT Infraprojects Ltd. considered the Million Standard Axel (MSA) as 4.7 without any analysis for computation of traffic design. The Department also accepted the same ignoring the provision of IRC: 37- 2001 and accorded the TS by adopting richer bituminous base course consisting of BM of ₹ 4.64 crore in the estimate. However, as per calculation made by audit according to the traffic volume as well as design life, the MSA would be 1.02[78]. Therefore, inclusion of BM in the estimate was not at all justified as the agency in violation of IRC guidelines had adopted incorrect design life of 20 years instead of 15 years. It was seen that M/s GPT Infraprojects Ltd. executed 5582.185 cum BM and was paid ₹ 6.59[79] crore (including profit) till date of audit (March 2015).

During joint verification (July 2015) with the departmental representative it was observed that maximum portion (10 out of 15 km) of the road were damaged indicating poor quality and substandard work done by the agency as evident below.

[76] Average daily traffic with weight 3 tonnes or more comes to 82 (Agricultural tractor = 08, Mini Bus/Bus = 37 and Trucks = 37 Nos.). Light vehicles with load less than 3 tonnes excluded i.e. maruti vans, jeeps, etc.

[77] The traffic in the year of completion is estimated using the following formula $A= P(1+r)^{x,}$ where,
A= initial traffic in the year of completion of construction in terms of the number of commercial vehicles per day, P= number of commercial vehicles as per last count , r= Annual growth rate of commercial vehicles (for 7.5 *per cent* annual growth rate i.e r = 0.-75) and x= number of years between the last count and the year of completion of construction i.e 2 years for completion of date
Therefore , $A = 82 (1+0.075)^2 = 95$

[78] Computation of design traffic can be computed using the following equation
$N= 365 x[(1+r)^n -1] x A x D x F/r$ where
N= the cumulative number of standard axles to be catered for in the design in terms of MSA.
A= initial traffic in the year of completion of construction interms of the number of Commercial Vehicles Per Day (CVPD)
D= Lane distribution factor (0.75)
F= Vehicle damage factor (1.5) , n= Design life in years (15) and
r= Annual growth rate of commercial vehicles (for 7.5 *per cent* annual growth rate i.e r = 0.075) and x= number of years between the last count and the year of completion of construction.
$N= 365 x [(1+0.075)^{15}-1] x 95 x 0.75 x 1.5 / (0.075 x 10^6)= 1.02$ MSA

[79] ₹ 5,10,87,320/- + 29 *per cent* profit (i.e. ₹ 1,48,15,322/-) = ₹ 6,59,02,642/-

Thus, incorrect adoption of basic data for computation of traffic design and execution of richer specification of BM to increase the thickness in the pavement unnecessarily in violation of road guidelines was not justifiable and the Department incurred an avoidable expenditure of ₹ 6.59 crore for BM work.

The Government stated (August 2015) that total Commercial Vehicle Per Day was 227 including Jeep, Van, Agricultural tractor, Mini bus, etc. and on the same basis BM was executed which inter-alia increased the stability of pavement and reduced the recurring maintenance cost.

The reply was not acceptable as it was clearly mentioned in the DPR that the traffic largely includes motor cycles/two wheelers and very few light commercial vehicles and passenger cars like maruti vans and no significant commercial vehicles were noticed during traffic survey. Therefore, as per IRC 37: 2001 while calculating the MSA, traffic volume of jeep, van, etc. may not be considered except Agricultural Tractor and mini bus (gross weight more than three tonnes).

In addition, due to poor quality of work in execution of Bituminous Macadam (BM), the departmental claim to increase the stability of pavement could not be sustained as the Department had already taken up the maintenance work of the road at various stretches as seen during joint physical verification.

2.6 Blockade and diversion of SPA funds

Withdrawal of funds from the Consolidated Fund of the State in violation of provisions prescribed by the GoI under SPA and charging to the work which had not commenced led to blocking of funds of ₹ 5.34 crore for more than 34 months. There was also diversion of ₹ 5.47 crore coupled with issue of false UC of ₹ 10.83 crore. This was not only irregular but was also fraught with the risk of misappropriation of Government funds.

Based on the project proposal submitted (August 2011) by the State Government, the Planning Commission (GoI), after examination, approved (September 2011) a project for "Construction of RCC Bridge Parallel to the existing one just adjacent to Eastern side of Astabal Permanent Bridge" at Agartala, for ₹ 12.36 crore with recommendation to the Department of Expenditure, Finance Department, GoI to release the grant as Special Plan Assistance (SPA) for Annual Plan 2011-12. The State Government however, accorded the Administrative Approval (AA) and Expenditure Sanction (ES) of ₹ 12.36 crore in June 2011 itself and the State Finance Department also released ₹ 11.12 crore to the Chief Engineer (CE), (R&B) during July 2011 to February 2012. The EC also released the funds to the Executive Engineer (EE), Agartala Division No- III (Agartala Division) for execution of the above work.

While approving the project, the GoI stipulated that State Government would monitor the physical and financial targets against the project before release of allocated funds to the line department and also check the progress of utilisation at regular intervals.

Further, Rule 290 of Central Treasury Rules Vol–I provides that no money would be drawn from the treasury unless it is required for immediate disbursement. It is not permissible to draw money from the treasury in anticipation of demands or to prevent the lapse of budget grants.

Test check of records (April 2015) of EE, Agartala Division revealed that the EE without carrying out preliminary works, such as preparation of detailed project report, Notice Inviting Tender (NIT), etc. obtained Proforma Bills[80] from the EE, Stores Division and against that an advance payment of ₹ 5.36 crore[81] was made in March 2012 for procurement of 1147.20 MT of steel. The advance payment so made was shown as expenditure under SPA by the Agartala Division. The EE, Stores Division issued Sale orders in May 2012 to lift the requisitioned materials. However, against the requisitioned quantity of 1147.20 MT steel valued ₹ 5.36 crore, only ₹ 0.02 crore worth steel were lifted by the Agartala Division from the Stores Division as of April 2015. Moreover, the work had not commenced as of May 2015. Thus, the aforesaid work to which the cost of materials was debited in March 2012 under SPA, was neither commenced nor the material lifted by the Division even after lapse of 46 months from the date of GoI approval

It was also observed in audit that:

- Division further diverted an amount of ₹ 5.47 crore out of the remaining balance of ₹ 5.76[82] crore to different works other than sanctioned work by the GoI though the GoI had prescribed that SPA would be utilised only for the purposes for which it was approved and it stands earmarked for the same
- Even without execution of the work, the EE, Agartala Division No. III submitted a Utilisation Certificate (UC) of ₹ 10.83 crore to the Engineer-in-Chief (R&B) in April 2014 by falsely stating (March 2014) that the expenditure of ₹ 10.83 crore had been incurred for "Construction of 2nd Bridge over Katakhal at Agartala" under SPA.

Thus, the withdrawal of funds from the Consolidated Fund of the State in violation of the codal provisions as well as the terms and conditions prescribed by the GoI and charging to the works which had not commenced not only led to blocking of funds of ₹ 5.34 crore for more than 34 months but the same, together with diversion of ₹ 5.47 crore to works other than sanctioned project by GoI, coupled with falsified issue of UC of ₹ 10.83 crore was totally irregular. Above all, non-compliance with the instruction of GoI attached to the sanction of project/release of funds and misrepresentation of facts with regard to utilisation of funds was fraught with the risk of misappropriation of GoI funds. Besides these, due to parking of the funds of ₹ 5.34 crore outside the Government accounts, the State had incurred loss of interest of ₹ 0.95 [83] crore for the period from March 2012 to May 2015.

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[80] Proforma Bill No. 40 and 41 dt. 21.03.12
[81] Voucher No. 145 and 146 dt. 26.03.12
[82] ₹ 11.12 crore – ₹ 5.36 crore = ₹ 5.76 crore
[83] Interest @ 5.50 *per cent* per annum (**Source**: Finance Accounts)
₹ 5.34 crore x 5.5 *per cent* x 39/12 = ₹ 95.45 lakh

While admitting the facts, Government stated (August 2015) that there was crunch of maintenance funds during that period and funds were utilised towards linking roads which was unavoidable.

But, fact remained that the SPA funds earmarked by GoI for the project was utilised for linking road network towards the bridge within the Municipal area not related to the project.

2.7 Extra expenditure on construction of bridge

Commencement of work without adequate study of soil strata and plugging the pier wells at lesser desired levels besides leading to extra expenditure of ₹ 1.44 crore and huge time overrun, compromised the soundness and stability of the bridge.

The work relating to 'Construction of RCC bridge over river Dhalai near Halhali market on Kamalpur – Ambassa road to Kamalpur – Maracherra – Ambassa road (Bridge Proper only) was awarded to contractor 'A' in July 2006 at his negotiated tendered value of ₹ 5.30 crore with the stipulation to complete the work within 30 months to be reckoned from 15th day after the issue of work order. The drawing and design alongwith Detailed Project Report (DPR) of the bridge was prepared by the consultancy as engaged by the Department before awarding the work. The work commenced in November 2006 due to delay in handing over clear site to contractor. After execution of work valued ₹ 1.99 crore **(**upto 5th RA), the contract was closed in July 2012. Meanwhile, contractor was paid ₹ 1.99 crore (March 2014).

Scrutiny (March 2014) of records of Executive Engineer, PWD (R&B), Kamalpur Division and further information collected (May 2015) revealed the following:

- As per approved general drawing of the bridge the sinking depth of five wells (2 Nos. abutment wells and 3 Nos. pier wells) was 24.91 meter each. However, during actual execution the contractor stated that the soil strata mentioned in the Notice Inviting Tender and that actually found at the worksite was quite different. Therefore, the wells could not be sunk to the desired levels. The contractor had already sunk all the wells upto 17 meter depth by April 2009. The sinking of wells beyond 17 meters could not be practically achieved till the very end. This indicated that the DPR was prepared based on inadequate survey and also the work was taken up without assessing the actual soil strata.
- While referring the matter to the consultant in January 2010 for obtaining the views for stability of the wells, the technical consultant recommended (March 2010) that though abutment wells with the present foundation level were safe the stability of pier wells were found unsafe even without considering 30 *per cent* additional safety margin and suggested that further sinking of two meters of pier wells was required from the present position.
- The foundation design of all pier wells were accordingly modified and fixed at a depth of 19 meter which was communicated to the contractor in April 2010 *i.e.*

after delay of one year from the date of abandonment. However, contractor was reluctant to continue the work further due to time overrun and demanded (May 2010) time extension and modified /revised rate for the remaining unexecuted works.

- The agreement was mutually closed in July 2012 without sinking of extra depth of pier wells of two meters as opined by the consultant. Before closure of the agreement, the contractor had also completed top plugging of pier at the depth of 17 meters only.

  From the above, it was evident that pier well had sunk at the depth of 17 meter only instead of desired level i.e upto 19 meter though the technical expert stated that at that position the pier wells were unsafe. Therefore, soundness as well as stability of bridge also remained questionable.

- The balance work was awarded (December 2012) to Contractor 'B' 'at his negotiated tender value of ₹ 4.72 crore (i.e. 2.937 *per cent* above the estimated cost of ₹ 4.59 crore) with stipulation to complete the work within 18 months to be reckoned from 15th day after the issue of work order. The work commenced in January 2013 and bridge proper was completed in December 2014. However, approach road was in progress. Total value of work done was ₹ 4.41 crore up to 5th RA bill. Against that, contractor was paid ₹ 4.35 crore till 5th RA (December 2014).

It was observed that due to awarding of the balance work to the Contractor at a much higher rate, the Department had to incur an extra expenditure of ₹ 1.44 crore (**Annexure-2.7.1**).

Thus, due to commencement of work without adequate study of actual ground position and also plugging the pier wells at lesser depth instead of desired levels, the soundness of bridge remained questionable. Besides, this resulted in time overrun which in turn resulted in original contract being ultimately closed and execution of balance work through another contractor at a much higher rate. The Department had incurred undue delay and an extra expenditure of ₹ 1.44 crore due to these failures.

The Government replied (October 2015) that sinking of wells were done upto 17 meter of all piers and further drive was precluded by hard substance/rock. It was also stated that balance work was awarded comparatively at higher rate than the original work as the first contractor was unwilling to execute the balance work at agreed rates due to considerable time overrun.

PUBLIC WORKS DEPARTMENT (Water Resources)

2.8 Loss due to non-recovery of mobilisation advance

Mobilisation advance of ₹ 56 lakh out of ₹ 2.10 crore was not recovered from the executing agency for construction of Head work at Muhuri irrigation project at Kalashi resulted in loss to the Government.

Para 32.7 of CPWD Manual Volume-II (2002) provides that in respect of certain specialised and capital intensive works costing not less than ₹ 1 crore, mobilisation advance limited to a maximum of 10 *per cent* of the estimated cost put to tender or ₹ 1 crore whichever is less can be provided to the contractor.

Scrutiny (October 2014) of records of Executive Engineer (EE), Water Resources, Belonia revealed that with the approval (January 2001) of Works Advisory Board (WAB) the work 'Muhuri Irrigation Project' at Kalashi, South Tripura (Diversion Scheme)/Construction of Head Work, etc. was awarded (March 2001) to M/s National Projects Construction Corporation Limited (NPCC Ltd). at a tendered value of ₹ 21.16 crore against the estimated cost of ₹ 14.82 crore with the stipulation to complete the work by March 2004. The work commenced in November 2002 but was rescinded in January 2012 due to slow progress of work. The EE with the approval of WAB paid mobilisation advance of ₹ 2.10 crore in three instalments of ₹ 70 lakh each in March 2001, February 2003 and November 2003 to M/s NPCC Ltd. against the admissible amount of ₹ 1 crore only. As per manualised provision, the entire amount shall be recovered before 80 *per cent* of the work is completed.

It was however, noticed that mobilisation advance of ₹ 1.53 crore only out of ₹ 2.10 crore was recovered (upto 55th RA Bill) from NPCC Ltd and balance of ₹ 56[84] lakh remained un-recovered till date of audit (November 2014). Total value of work done was ₹ 14.30 crore (upto 55th RA bill) against the original tendered value of 21.16 crore. The amount along with 3.93 crore on account of escalation payment, extra item payment, mobilisation advance and re-imbursement for increase in cost of steel reinforcement had been paid to M/s NPCC Ltd in August 2011. Due to cessation of the work, the possibility of recovery of the balance amount of ₹ 56 lakh was remote. The EE issued a demand notice to M/s NPCC Ltd to deposit the amount in June 2014 but the same was not deposited as of November 2015.

The Chief Engineer replied (November 2015) that as the physical work was done only for ₹ 14.30 crore i.e 68 *per cent* against the agreed value excluding escalation, extra item and reimbursement for increased cost of steel reinforcement, etc. the Executive Engineer was not in position to recover the entire mobilisation advance.

Thus, undue payment and non-recovery of mobilisation advance of ₹ 56 lakh for construction of Head works at Muhuri irrigation project at Kalashi resulted in financial loss to the Government to that extent.

[84] ₹ 57 lakh balance mobilisation advance - ₹ 1 lakh Security deposit = ₹ 56 lakh.

PUBLIC WORKS DEPARTMENT (Roads and Buildings)

2.9 Avoidable expenditure

Commencement of work without conducting soil investigation adequately led to huge extra earth cutting for construction of TSR battalion HQ at Pathaliaghat and thereby execution of earth work with two different rates which resulted in avoidable expenditure of ₹ 55.31 lakh.

With the approval (May 2012) of Works Advisory Board, (WAB) the construction of 11th Battalion TSR Head Quarter at Pathaliaghat was awarded (July 2012) to contractor 'A' at a tendered value of ₹ 11.07 crore (9.95 *per cent* above the estimated cost of ₹ 10.07 crore put to tender) with stipulation to complete the work within 24 months. The work commenced in October 2012 and was in progress (January 2015). The contractor was paid ₹ 9.85 crore against the value of work done of ₹ 11.30 crore (including deviated quantity) upto 6th RA bill.

Scrutiny (January 2015) of records of Executive Engineer, Bishramganj Division, PWD (R&B) revealed that the estimate for the above work was prepared (November 2011) on the basis of soil bearing capacity (SBC) of nearby site instead of conducting soil investigation of the actual site. The Chief Engineer (CE), PWD(R&B) observed that the terrain was undulating and therefore, huge earth cutting was required for construction of the buildings. Accordingly, master plan of TSR Battalion Head Quarter was modified with the approval of Assistant Inspector General of Police in August 2012. As per modified master plan, excess quantity of earth work was carried out for which ₹ 82.50 per cum was approved by the Department in August 2012. The contractor executed 1,35,013.07 cum (including excess quantity of 1,29,892.99 cum beyond the agreement which was 96 *per cent* in excess) earth work for foundation work of four buildings at the said rate and ₹ 1.07 crore was paid in November 2013.

It was seen that during earth cutting for four buildings, the Additional Chief Engineer, Project Circle, PWD(R&B) instructed (January 2013) that all the buildings were to be constructed on original and solid soil only and not in filled up places. Accordingly, an estimate of ₹ 70.87 lakh (including 3 *per cent* contingency) based on SOR 2008 @ ₹ 82.50 per cum was prepared (March 2013) for earth cutting for remaining eight buildings and tender was invited in April 2013. The work was awarded (June 2013) to the lowest tenderer at the tendered value of ₹ 33.30 lakh i.e. 51.61 *per cent* below the estimated cost of ₹ 68.80 lakh with stipulation of three months time for completion. The rate of earth cutting was fixed at ₹ 39.92 per cum. The work commenced in July 2013 and was in progress (January 2015).

Therefore, it was evident that two different contractors had executed the same type of earth work at the same time in same location at different rates.

Had proper survey been conducted by the Department before award of the construction work, actual requirement of earth cutting for foundation level could have been assessed. An open tender for entire earth cutting work could have been invited

and the Department could have saved the extra avoidable expenditure of ₹ 55.31[85] lakh towards earth cutting.

The matter was reported to Government (July 2015); reply had not been revieved (November 2015).

2.10 Loss due to injudicious rejection of first call of tender

Injudicious rejection of first call of tender by the Chief Engineer PWD(R&B) and subsequent awarding of the same work at a much higher rate caused a loss of ₹ 52 lakh to the Government besides undue favour to the unqualified bidder.

The Chief Engineer, Public Works (Roads & Buildings) Department {CE, PWD, (R&B)} accorded (May 2011) Technical sanction (May 2011) to the detailed estimate of ₹ 3.86 crore along with Draft Notice Inviting Tenders (DNIT) of ₹ 3.75 crore for construction of 23 quarters and boundary wall for existing Girl's Hostel having a capacity of 480 (Ekalavya Model Residential School) at Rajnagar. The DNIT provided that steel of 20 mm dia and above would be supplied by Department for which the proposed recovery rate was fixed at ₹ 45,041 per MT and steel below 20 mm dia was to be arranged by the contractor.

Scrutiny (December 2014) of records of Executive Engineer (EE), Khowai Division, PWD (R&B) revealed that tender for the aforesaid work was invited in June 2011 on percentage rate basis. In response, five tenders were received in July 2011 and found to be technically qualified. Thereafter, financial bid was opened in July 2011 and tenderer 'A' was the lowest at his tendered value of ₹ 3.67 crore (*i.e.* 2.10 *per cent* below the estimated cost of ₹ 3.67 crore provided for in tender). While forwarding the tender to the higher authority for acceptance, EE mentioned that the rate quoted by the lowest tenderer was reasonable. However, the CE, PWD (R&B) rejected the tender on the grounds of incapability to evaluate the bid capacity of the tenderer due to not furnishing of the requisite documents/information available with the Technical Bids of all the tenderers and also scarcity of steel in the Stores Division. After that the CE instructed the EE to modify the DNIT excluding the provision for issue of departmental supply of steel.

Accordingly, DNIT was modified (September 2011) with the same estimated cost and fresh tender was invited (September 2011) against which seven tenders were received. The work order was issued (March 2012) to the lowest tenderer 'B' at his negotiated tendered value of ₹ 4.22 crore *i.e*. 12.50 *per cent* above the estimated cost of ₹ 3.75 crore of the revised tender. The work commenced in March 2012 and was completed in June 2014 at a cost of ₹ 4.01[86] crore (including extra item of ₹ 0.01 crore) against which ₹ 3.97 crore was paid to contractor upto 3rd Running Account (RA) Bill. In this connection, Audit observed the following:

[85] 129892.99 cum x (₹ 82.50 – ₹ 39.92) = ₹ 55.31 lakh
[86] including extra item of ₹ 35,213/-

(A) Though the first tender of 'A' was rejected *inter-alia* due to scarcity of steel in the Stores Division, it was observed in audit that a large quantity of Tor Steel including 20 mm dia was lying with the Stores Division when the tender was accepted and necessary instructions was also issued (November 2011) by the CE for lifting the Steel. It was further observed that EE, Stores Division had issued sale orders of 340 MT 20 mm dia above Steel valued ₹ 1.61 crore between June 2009 and December 2011 of which the Division had lifted only 63.84 MT Tor Steel till July 2015. Hence, the assertion made by the CE of scarcity of steel in the Stores Division was factually incorrect. In addition to above, it was further noticed that though the 1st call was rejected on the grounds that the bid capacity cannot be evaluated due to want of requisite documents for evaluation of technical bids, it was evident from the Minutes of price bid that all the tenderers were technically qualified.

(B) Further, Para 3.3 (C) of tender document provided that the tenderer who met the requisite qualifications criteria and had bid capacity more than the estimated contract value would be qualified for opening of financial bid and no relaxation would be given to any of the qualification criteria. However, in second call of tender it was noticed that bid capacity of first lowest tenderer could not be evaluated due to not furnishing of certificate for the existing commitment of on-going work and therefore, tender of first lowest tenderer was not qualified for opening the financial bid as per clause 3.3 (B)(C) of Standard Technical Bid documents. Despite these, the financial bid of the lowest tenderer was opened by EE, Khowai Division and submitted to the next higher authority i.e SE, 2nd Circle for acceptance. The SE 2nd Circle further forwarded the same to the CE and stated that rate quoted by the lowest tenderer seems to be higher and may be accepted with due negotiation. The tender was finally accepted by CE after negotiation with the lowest tenderer. In view of the above, the possibility of undue favour given to the lowest tenderer in the second call could not be ruled out.

Thus, due to lack of justification for rejection of first call of tender and thereafter acceptance of unqualified tender in second call at higher rate in comparison to first call not only resulted in a loss of ₹ 52[87] lakh to the Government, but also indicated the possibility of undue favour to the lowest bidder in the second call.

On this being pointed out in audit, the EE stated (December 2014) that the tender was rejected as per instructions of the higher authority.

The Government replied (August 2015) that the first tender was rejected by the Chief Engineer as every tenderer had failed to enclose documents which were essential for evaluation of technical bids. It was further stated that the first lowest tenderer had failed to submit the requisite documents which indicated infirmities in the tendering

[87] Total value of work done in 2nd call against the estimated cost of the tender (without contractors profit): ₹ 3.55 crore.
Expenditure to be incurred if 1st call accepted = ₹ 3.55 crore – ₹(3.55 x 2.1 *per cent*) crore = ₹ 3.48 crore
Difference between 2nd call and 1st call = ₹ 4.00 crore – ₹ 3.48 crore =₹ 0.52 crore or ₹ 52 lakh

and thus Department could not accept such default/infirmities in tender and therefore, tender was rejected.

The fact however, remained that the documents required for evaluation of technical bids were available in the files and based on those documents the bidders were declared qualified as seen in the Minutes for opening of Price Bid. Hence, the contention of the CE that the tenderers had failed to enclose documents was not correct and therefore, rejection of first call of tender was unjustified.