Chapter 2

Performance Audits

Chapter 2: Performance Audits

HOME (POLICE) DEPARTMENT

2.1 Modernisation of Police Force

Executive Summary

In order to enable the police forces to face the emerging challenges of the internal security, Modernisation of Police Force (MPF) Scheme was launched by Ministry of Home Affairs (MHA), Government of India (GoI) in 1969-70. This scheme aims to modernise police forces in terms of mobility, weaponry, training, communication system, Forensic Science Laboratory/ Finger Printing Bureau, equipment and buildings, etc. Performance Audit of implementation of this scheme for the period 2009-14 revealed various deficiencies in planning, implementation, capacity to expend as well as monitoring.

- The department did not follow the prescription to prepare a strategic plan with a long term approach. Adhocism in the planning process adversely affected the scheme implementation.
- The State Government showed lack of absorptive capacity in efficient use of Central assistance leading to instances of non-release of full quantum of central assistance approved under Annual Plans and irregular release of funds to implementing authorities. Substantial funds remained parked with two Police Housing Corporations due to their deficient capacity.
- Implementation under all components of MPF was tardy with achievement lagging far behind the target. Intended augmentation of physical infrastructure like residential and non-residential buildings could not be achieved as many construction works were yet to be completed. While substantial number of works did not commence, many continued to be in progress well past the scheduled dates of completion. Instances of abandonment of works were also noticed. The department showed indifference in pursuing utilisation of funds released by it.
- On mobility and weaponry front, the police force was under-equipped *vis-à-vis* requirements. This was further compounded by instances of purchase of inadmissible vehicles, irregular utilisation of vehicles and utilisation of MPF funds on purchase of office equipment.
- Costly equipment purchased under Mega City Policing either could not be commissioned as targeted or remained non-functional.
- Though detailed information was not made available to audit on the monitoring activities of the State Level Empowered Committee, inadequacies in oversight were evident from various instances of violations of scheme stipulations and the noticeable disparity between the plan and the implementation.

2.1.1 Introduction

Modernisation of Police Force (MPF) Scheme was launched by Ministry of Home Affairs (MHA), Government of India (GoI) in 1969-70 to modernise the police force in the country so as to enable them to face the emerging challenges

of internal security. The scheme aims to modernise police force in terms of mobility, weaponry, training, communication system, Forensic Science Laboratory/ Finger Printing Bureau, equipment and buildings, etc. A new sub-scheme called Megacity Policing was introduced under the MPF as a sub-plan from 2005-06 to take care of the requirements of police forces in respect of the seven megacities of the country including Kolkata in West Bengal. The MPF scheme has been extended from time to time, latest being in February 2013, from 2012-13 to 2016-17.

2.1.2 Organisational set-up

Police force functions under the Home Department of the State Government headed by Additional Chief Secretary (ACS) who is responsible for overall implementation and monitoring of the MPF scheme. There are three directorate/ offices under the Department as far as policing is concerned *viz*. Kolkata Police Commissionerate (KP), West Bengal Police Directorate (WBPD) and Forensic Science Laboratory (FSL). KP is responsible for policing in Kolkata City areas while other areas of the State are under the Director General & Inspector General of Police (DG & IGP), WBPD. Accordingly, Commissioner of Police, KP, DG & IGP and Director, FSL are entrusted with the implementation of the scheme in their respective directorate/ offices. Further, as regards Home Guards (HG), the said responsibility is vested with the Director General & Commandant General (DG & CG), Home Guards, under the Civil Defence Department. Moreover, two Government companies *viz*. West Bengal State Police Housing Corporation Limited (WBSPHCL) and Kolkata Police Housing & Infrastructure Development Corporation Limited (KPHIDCL) are involved in construction works.

There is a State Level Empowered Committee (SLEC) (established in August 2001) under the Chairmanship of the State Chief Secretary which approves the Annual Action Plans (AAPs) and sends it to High Power Committee (HPC) of MHA for further approval. SLEC is also entrusted with the monitoring the implementation of the scheme.

2.1.3 Audit objectives

Audit objectives are to examine and assess whether

- there was proper planning to achieve the objectives of the Modernisation of Police Force schemes as envisaged in Strategic plans and Annual Action Plans;
- adequate and timely funds were provided and these were optimally utilised;
- various components of scheme were implemented efficiently and effectively;
- trained manpower was available to operate procured vehicles, security equipment, telecommunication and communication equipment and
- there was adequate monitoring over the implementation of the scheme.

2.1.4 Audit Criteria

- Scheme Guidelines issued by MHA, GoI[1]
- Police Regulations Bengal, 1943
- Kolkata Police Act, 1866
- Orders and Instructions issued by State/Central Government
- Delegation of Financial Rules 1977 as amended
- West Bengal Treasury Rules 2005
- West Bengal Financial Rules as amended.

2.1.5 Scope, methodology and coverage of audit

Impact of earlier audit coverage: A review on MPF scheme was conducted for the period from 2000-01 to 2004-05 and the observations appeared as paragraph 3.5 in the Report of the Comptroller & Auditor General of India on West Bengal for the year ended 31 March 2005. The said report flagged certain areas of concern which *inter alia* included non-release of state-share, shortfall in purchase of vehicles compromising mobility of police force, shortage of weaponry/ shortfall in providing accommodation to police personnel, gaps in training, etc. In its reply (January 2009), Government had assured that necessary steps would be taken to address the shortcomings.

Coverage of current performance audit: The current performance audit was conducted between April 2014 and June 2014 covering the period from 2009-10 to 2013-14. Records of the Home Department, its three directorates *viz.* WBPD, KP and HG, Forensic Science Laboratory, WBSPHCL, KPHIDCL, Director (Security) and Criminal Investigation Department (CID), West Bengal, Commandants, State Armed Police, 2nd, 3rd and 6th Battalions, State Crime Records Bureau, Police Training College, Police Telecommunication, Intelligence Bureau, Superintendents of Police (SP) of six[2] police districts and two[3] Police Commissionerates, selected on the basis of cluster sampling, were test-checked.

Entry/ Exit Conferences: The audit methodology, scope, objectives and criteria were explained to the Additional Chief Secretary, Home Department and other functionaries in the entry conference held in March 2014. Audit findings were discussed with the Principal Secretary, Home (Police) Department in an Exit Conference held in September 2014 and responses of the department have been incorporated in the report at appropriate places.

Audit findings

Government replies to recommendations in Audit Report 2004-05 are at ***Appendix 2.1.1***. The current performance audit noticed similar shortcomings.

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[1] *Scheme Book for the Modernisation of Police Forces uploaded in MHA's website indicates that it was a draft guidelines (up to the implementation years 2011-12). For this period criteria has been sourced from this Scheme Book in some cases. However, in February 2013, a new set of guidelines has been introduced by the MHA for implementation period 2012-13 to 2016-17.*

[2] *Bankura, Bardhaman, Dakshin Dinajpur , Jhargram, Jalpaiguri and Paschim Medinipur*

[3] *Barrackpore and Howrah*

2.1.6 Planning

2.1.6.1 Non formulation of strategic Plan

Planning requirements: The Scheme guidelines recommended that instead of yearly action plan prepared based on 'a wish list of items', a strategic plan be prepared incorporating therein an equipment acquisition-perspective plan for five years which will identify and analyse gaps in various components under MPF scheme. A decentralised evidence-based bottom-up planning approach involving all stakeholders was to be adopted. Further, the Annual Action Plans (AAPs) were to flow from the strategic plan. The AAP formulated by the State Police Force had to be scrutinised by the SLEC before sending it for approval of the High Power Committee of the GoI for allocation of funds to the State Government.

Absence of long-term approach: MHA while approving the AAP for 2011-12 reiterated (January 2012) the requirement for a five-year strategic plan. Audit, however, noted that five-year strategic plan was not prepared by the Home Department during the period 2009-14, despite MHA's specific instructions. Thus, the desired long term approach in planning with annual plans flowing from strategic plan was found to be absent.

Preparation of component-wise plan: AAPs incorporating the component wise proposals of the four[4] Directorates consolidated from the inputs received from SPs and Commissioners were found to have been prepared in all the five years covered by audit. The major components under which the AAPs are prepared are: (i) Construction; (ii) Mobility; (iii) Weaponry; (iv) Equipment and (v) Forensic Science Laboratory.

Non-release/ delayed release defeating the purpose of plan: It was, however, noticed that the funds requirement in the AAPs were neither fully released by the GoI nor by the State Government in the same year thereby defeating the very purpose of the AAPs. Even funds received from GoI in a particular year were found to have been released by the State to executing agencies in subsequent years while release of States own share was also inconsistent hampering the physical implementation of schemes *vis-à-vis* the AAP targets.

During exit conference (September 2014), the Principal Secretary, Home Department stated that the department could not prepare long term strategic plan as GoI did not intimate the outlay for the scheme for these five years. He added that the funds as approved in AAPs were also not released in time. The reply may, however, be viewed with the fact that slow progress in utilisation of funds by the state affected flow of funds from GoI. Moreover, as per guidelines, need-based perspective plan should have been prepared based on analysis of gaps in various components.

The issues have been discussed in the subsequent paragraphs on fund management.

[4] *Directorates of West Bengal Police, Kolkata Police, Forensic Science Laboratory and Home Guard*

2.1.7 Finances

Funding pattern: During 2009-12, the MPF Scheme was financed by GoI and GoWB in the ratio of 75:25, which was modified to 60:40 from the year 2012-13. Funds for construction works and for supply of arms to the States are directly released by the GoI to Police Housing Corporations and to the Ordnance Factory Board (OFB) respectively.

The position of receipt of funds from MHA and release by the State, as captured in the Finance Accounts, was as under

Table 2.1.1: Funds received and released under MPF during 2009-14 as per Finance Accounts *(₹ in crore)*

Year	Grants in Aid from GoI for MPF	Direct release outside State Govt. budget	Revenue expenditure			Capital expenditure			Total expenditure
			Non-Plan	Plan		Non-Plan	Plan		
				State Plan	Central Plan / Centrally sponsored Plan		State Plan	Central Plan / Centrally sponsored Plan	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J=E+H)
2009-10	48.49	0.00	Nil	45.58 (49.54)	Nil	Nil	8.99 (19.01)	Nil	**54.57**
2010-11	41.81	0.00		45.59 (56.58)			17.30 (24.21)		**62.89**
2011-12	35.63	0.00		27.15 (30.00)			23.78 (16.00)		**50.94**
2012-13	22.52	0.00		31.74 (42.78)			16.38 (20.00)		**48.12**
2013-14	0.00	59.69		21.65(nil)			36.40 (40.00)		**58.05**
TOTAL	**148.46**	**59.69**		**171.71**			**102.85**		**274.56**

(Figures in the brackets represent budgeted figures- Revised Estimates)
Source: Appropriation Accounts and Finance accounts

Non-segregation of sources of funds in accounts: MHA released its share to the State Government upto 2011-12 as Non-Plan grants and from 2012-13 onwards, funds for construction projects were classified under Plan head of MHA, while funds for other components (*e.g.* mobility, weaponry, equipment etc.) were released under Non Plan heads. The budget document of the State, however, did not have the necessary segregation and accordingly all releases were booked under State Plan in the Finance Accounts of the State making it difficult to segregate the amount being released by the State as GoI funds or State's own contribution.

Delayed release of funds by the State: There were instances of time gaps between the funds received from GoI and release of the same as well as the State's share by the State to the implementing agencies. For instance, it was noticed that the State released its share of the MPF fund of ₹ 43.49 lakh pertaining to 2001-02 only in 2012-13. Even the GoI funds of ₹ 2.65 crore received by State Government in 2011-12 were released only in 2013-14.

2.1.7.1 Release and expenditure vis-à-vis AAP

While **Table 2.1.1** above indicates the GOI funds received and expenditure incurred in a particular year, **Table 2.1.2** depicts funds required as per the AAPs, the GOI funds received and funds released by the States to implementing agencies thereagainst upto 2013-14 as compiled from the sanction orders during 2009-14 of the Government for expenditure made under the MPF Scheme:

Table 2.1.2: Status of funds received and expended under MPF against the approved plan during 2009-14 *(Figures in bracket indicate percentage of expenditure against funds released)*

(₹ in crore)

Plan year	Approved Plan[5]	Amount due from GoI^	Release by GoI	Fund released by Department as of March 2014	Total expenditure	Total expenditure as percentage of AAP
2009-10	104.85	78.64	46.58	85.12	67.34 (79)	64
2010-11	111.42	83.56	40.97	54.19	46.85 (86)	42
2011-12	166.98	125.23	29.97+ 14.66*	35.15	22.50 (55)	13
2012-13	208.23	125.18	14.68	8.07	1.11 (14)	0.53
2013-14	165.93	99.56	53.69*	1.23	0 (0)	--
Amount not attached to any AAP			6.00	0	0 (0)	--
Total	**757.41**	**512.17**	**206.55**	**183.76**	**137.80 (75)**	**18**

^This also includes ₹ 10.17 crore released to OFB during 2009-14 for supply of arms to the State.

**- Direct transfer to WBSPHCL and KPHIDCL.*

Source: Data provided by Home Department, Government of West Bengal

Slow progress of expenditure: From **Tables 2.1.1** and **2.1.2** above it is seen that though a total amount of ₹ 274.56 crore was spent during 2009-14, only ₹ 137.80 crore was against the AAP requirement for 2009-14 indicating that the balance amount of ₹ 136.76 crore was expended from the MPF fund (GOI contribution and States contributions) pertaining to older periods.

Expenditure falling substantially short of plan: The State government did not maintain segregated figures for State and Central shares. As such, it could not be ascertained in audit whether the State contributed the stipulated share. Against approved plan size of ₹ 757.41 crore, only ₹ 183.76 crore (24 *per cent*) was released by the Department, of which only ₹ 137.80 crore (75 *per cent* of amount released) was utilised during 2009-14. As compared to the plan size, actual expenditure was merely 18 *per cent*, which indicated that the State was mostly unable to productively use the scheme funds to bridge the gap between requirement and availability of infrastructure.

Department's response: During exit conference (September 2014) Principal Secretary assured that the figures would be reconciled. As regards non-segregation of GoWB's share, it was stated that there is no particular head for booking State's share since inception of the scheme. Given the fact that the guidelines had envisaged clear segregation of State and GoI share in the financial planning process, such lacuna was a matter of concern and affected financial transparency.

It was further noticed that

- ***Component-wise shortfall in expenditure:*** The implementing units had failed to utilise the funds received under different components of MPF scheme with percentage of utilisation ranging from a mere 14 to 86 *per cent* during 2009-13 while no funds were expended in 2013-14. Component-wise analysis of expenditure levels (***Appendix 2.1.2***) showed substantial shortfall in expenditure under construction (52 *per cent*) and

[5] *The States were to prepare two Plans- Plan A, the actual plan to be funded and Plan B, a backup plan. Approved Plan for 2009-10 includes both Plan A and Plan B as funds were released for both the Plans, while for other years, outlay for only Plan A is indicated.*

weaponry (43 *per cent*). In respect of Mobility and Equipment, however, 91 and 87 *per cent* of the funds respectively were spent.

- ***Loss of GoI funds due to failure in spending:*** State's inability to timely utilise the funds was evident from the fact that MHA issued statements (March 2014) indicating ₹ 45.45 crore pertaining to funds released up to 2012-13 remaining unspent as of March 2014. As per MHA guidelines issued in February 2013, unspent balances in the State would result in non-release of further GoI funds which then would be pooled for release to better performing states. Thus, parking of unspent balances with the State is fraught with the possibility of pooling by MHA for further release to other States. It was also noticed that MHA while releasing (February 2012) grant in aid for the year 2011-12 adjusted ₹ 10.91 crore lying unspent with the State.

2.1.7.2 Non- monitoring of released funds

Submission of UCs: During 2009-14, against ₹ 29.88 crore sanctioned for construction of buildings, WBPD furnished utilisation certificates to GoI for ₹ 16.24 crore (54 *per cent*) only. The UCs for balance amount of ₹ 13.64 crore could not be furnished due to non-receipt of UCs from executing agencies. Even in case of funds released during 2005-09, UCs for ₹ 4.38 crore were not furnished by WBSPHCL due to non-receipt of the same from the executing agencies.

Compromise in transparency: The guidelines of MPF called for a system that would produce sufficient detailed information to manage the programme, and provide each level of management with regular financial information for decision making and monitoring. It was evident that the desired transparency was compromised by non-maintenance of segregated figures of State and Central shares of funds, holding back of GoI funds by the State government for years before onward release to implementing agencies, absence of monitoring over funds so released etc.

2.1.8 Construction works

Scheme requirement: Under MPF scheme, funds are provided for undertaking construction of non-residential and residential buildings. Construction of non-residential buildings includes construction of police stations, outposts, district police office, barracks, police lines, kennels, firing range, administrative blocks, other police buildings, etc., while construction of residential buildings include construction of quarters for lower (Constables and Head Constables) and upper subordinates (Inspectors, Sub-Inspectors and Assistant Sub-Inspectors).

Status of approval and implementation of the projects: During 2009-14, 160 construction projects were approved, out of which only 10[6] were completed while 22 were in progress. Out of the remaining, while seven projects were dropped, 121 projects could not be started mainly due to delay in getting administrative approval (52), non-release of funds by MHA, GoI on account of their own budgetary constraints (32) and other factors like delay in submission of estimate/ revised estimate (four), delay in administrative approval of revised estimate (four), paucity of funds (nine), delay in completion

[6] *WBPD: nine and KP: one*

of procedural formalities (two), revision of project (two), change of executing agency (one), change of site (one), revalidation of sanction (one) etc. Reasons were not available in case of 13 projects.

Audit observations in this regard are indicated in the succeeding paragraphs.

2.1.8.1 Non-residential Buildings

Slow progress of construction: Against 125 non-residential building projects approved (₹ 153.93 crore) by MHA during 2009-14, WBPD and KP had completed only five (sanctioned amount: ₹ 3.06 crore). While 16 projects were in progress, 97[7] could not be started and seven were dropped as indicated in **Table 2.1.3**:

Table 2.1.3: Status of construction of non-residential buildings planned during 2009-14

Type of building	Number of buildings				
	Approved in AAPs	Completed	In progress	Not started	Dropped
Police Stations	35	0	4	31	0
Barrack accommodation	52	4	5	38	5
Office building	9	0	1	8	0
Kennel	8	0	4	4	0
Other buildings*	21	1	2	16	2
Total	**125**	**5**	**16**	**97**	**7**

**Training hall, traffic guard, aquatic training centre, etc.*
Source: Data provided by Home Department

As is apparent from the table above, critical infrastructure like police stations, barrack accommodation, office buildings, etc. could not be augmented significantly by the Department during 2009-14.

2.1.8.2 Residential Buildings

Slow progress in construction vis-à-vis plan: During 2009-14, out of 35 approved residential projects for 870 police personnel[8] (₹ 61.86 crore), WBPD and KP completed only five (sanctioned amount: ₹ 8.48 crore) for 107 personnel while six projects for 121 personnel (sanctioned amount: ₹ 7.08 crore) were in progress and 24 (sanctioned amount: ₹ 2.05 crore) meant for 642 personnel could not be started. Thus, the Department completed accommodation for only 12 *per cent* of the personnel it had planned for.

Officers' quarter at Matelli Police Station, Jalpaiguri (June 2014)

Officers' bathing area at Matelli Police Station, Jalpaiguri (June 2014)

Acute shortage of quarters in test-checked districts: Test-check of nine PSs out of 92 in four test-checked districts and two Commissionerates revealed that there was requirement of 254 quarters against which only 26 (10 *per cent*)

[7] *Of the 97 projects which were not started, 52 were planned up to 2012-13. Five pertain to 2009-10.*
[8] *Lower and upper sub-ordinate quarters for Constables, Sub-Inspectors, Sergeants*

were available pointing to acute shortage of quarters. Further, even out of the available 26 quarters, 18 were damaged and seven condemned. This indicated that Department could not provide habitable accommodation to its police personnel.

2.1.8.3 Irregular use of Central share

While approving AAP for 2009-10, MHA advised the State Government to indicate realistic cost for construction of buildings and to meet the escalation cost of building from State funds.

Irregular use of Central funds to meet escalation cost: In the scheme year 2009-10, ₹ 5.03 crore was approved for construction of quarters in three[9] districts and purchase of 32 Lower Income Group flats in South 24 Parganas entrusted to WBSPHC Ltd. These projects approved for 2009-10 were finally completed between September and December 2013 at a cost escalated to ₹ 7.90 crore. Out of the escalation amount of ₹ 2.87 crore, ₹ 1.13 crore was met from Central share instead of State funds in contravention of the directives of MHA.

2.1.8.4 Non-construction of quarters for subordinates

Requirement and plan for construction of subordinates' quarters: MPF scheme envisaged construction of quarters for lower (Constables and Head Constables) and upper (Inspectors, Sub-Inspectors and Assistant Sub-Inspectors) subordinates. KP was entrusted with a project for construction of residential quarters at a cost of ₹ 1.50 crore as approved in AAP of 2011-12. In AAP 2012-13, an additional amount of ₹ 2.5 crore was sought for construction of accommodation for officers at the same location which, however, was not approved by MHA. In 2013-14, KP again submitted a revised estimate for ₹ 5.72 crore for the project without indicating the category of personnel for which the residential accommodation was being proposed. MHA approved the balance amount of ₹ 4.22 crore for the project.

Delay in construction and proposal for inadmissible construction: Detailed scrutiny of records, however, revealed that the estimate of ₹ 5.72 crore was based on proposal for construction of 12 flats for IPS officers which was not admissible under the MPF scheme. Thus, inspite of the initial availability of funds, the Department delayed the construction of quarters for subordinates, which was the primary objective under MPF by altering the proposal to one for the construction of quarters for IPS officers.

On this being referred to, the Managing Director, KPHIDCL stated (March 2014) that only admissible projects under MPF scheme would be undertaken.

During exit conference (September 2014), accepting the above mentioned fact the Principal Secretary stated that the project has been dropped. The department, however, had not produced any document in support of the same. Moreover, the department was silent on the issue of construction of quarters for subordinates.

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[9] *Construction of 16 Lower Subordinate Quarters and eight Upper Subordinate Quarters in each of the three districts Malda, Birbhum and Murshidabad*

2.1.8.5 Performance of Police Housing Corporations in construction works

With the objective of formulating and executing construction of buildings for police and other Departments, two housing Corporations *viz*. WBSPHCL and KPHIDCL were established in March 1993 and February 2011 respectively.

Overall performance of the Corporations: Out of 160 construction projects, 77 projects were to be executed by WBSPHCL and KPHIDCL for which an amount of ₹ 84.72 crore (WBSPHCL: ₹ 76.70 crore for 71 projects and KPHIDCL: ₹ 8.02 crore for six projects) was released. A test-check of projects revealed the following.

- Out of 71 works entrusted, WBSPHCL could complete seven while five projects were underway, 56 did not commence and three were dropped. WBSPHCL utilised only ₹ 12.32 crore (16 *per cent*) up to February 2014.
- KPHIDCL did not undertake much construction activity till March 2014 despite receiving ₹ 8.02 crore (June 2012) for construction of six building projects (AAP 2011-12). The status of the six projects are shown in ***Appendix 2.1.3***:

Parking of funds: The progress of assigned works being very slow, WBSPHCL and KPHIDCL parked MPF scheme funds of ₹ 72.40 crore (WBSPHCL: ₹ 64.38 crore and KPHIDCL: ₹ 8.02 crore) as of date either in Current Account with Multi Option Deposit facility[10] (WBSPHCL) or in fixed deposits[11] (KPHIDCL)[12].

During exit conference (September 2014), Principal Secretary stated that the matter would be looked into.

Managing Director, KPHIDCL stated (March 2014) that fixed deposit of MPF funds was made with the intention to earn interest during idle period. The reply was not tenable as the scheme guideline stipulated that MPF funds were meant for expeditious utilisation and should not be kept idle in fixed/ short term deposits to earn higher interest.

Thus, the Corporations fell way behind the desired level of performance in implementation of MPF scheme. Accepting the audit observation, KPHIDCL attributed (March 2014) the same to some administrative bottlenecks and lack of manpower.

Irregularities in construction: Irregularities noticed in construction works undertaken by these Corporations are indicated below:

- ***Handing over of unfinished construction:*** Forty[13] residential quarters constructed (MPF scheme year 2009-10) in Malda and North 24 Parganas by WBSPHCL at a cost of ₹ 3.33 crore could not be put to use as these were handed over (between September 2013 and January 2014) to the SPs of these districts without electrification/ water connection.

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[10] *Idle Funds were automatically converted into Fixed Deposits after a specified period.*
[11] *SBI and Syndicate Bank*
[12] *Interest of ₹2.68 crore was earned from these investments which has been shown as a part of MPF funds in the accounts.*
[13] *Eight Upper Subordinate and 16 Lower Subordinates quarters at Malda and 16 LS quarters at Banamalipur, North 24 Parganas*

- In 2011-12, central share of ₹ 6.68 crore was released to WBSPHCL for execution of 17 projects. As the Corporation expressed (May 2013) its inability to undertake these works citing infrastructural inadequacies, Government assigned (August 2013) only six[14] projects to the Corporation but let the entire central funds of ₹ 6.68 crore remain with the Corporation. As of March 2014, no expenditure was made by the Corporation on this count. Out of these six works:
  - ***Curtailment of capacity of barrack:*** In three, while submitting the estimates, the Corporation deviated from the AAP approved by MHA by curtailing the capacity of each barrack from 50 heads to 30 citing revision of rates in PWD schedule. The estimate was sanctioned by the Department in January 2014.
  - ***Amount lying idle due to non-identification of site:*** In one case (approved outlay of ₹ 0.70 crore for construction of Trainers' Hostel for Counter Insurgency Force at Salua, Paschim Medinipur), despite guideline stipulation, neither was site identified nor land acquired before submitting proposal for construction. Consequently, ₹ 0.53 crore received in 2011-12 could not be utilised as on date pending selection of site.
  - Tendering was in progress as of March 2014 in case of remaining two.

2.1.8.6 Construction of building for Regional Forensic Science Laboratory (RFSL) at Jalpaiguri

The Regional Forensic Science Laboratory at Jalpaiguri has only one functional department (Biological department) out of requisite seven[15] departments. The police authorities of North Bengal districts have to depend on SFSL in Kolkata. With its existing capacity, Jalpaiguri laboratory has been falling short in catering to the demand[16]. To strengthen the laboratory, GoI released ₹ 1.57 crore to (September 2005) WBSPHCL for construction of two storied buildings of RFSL, Jalpaiguri. WBSPHCL released (September 2006) the entire fund to the Executive Engineer (EE), PWD, Jalpaiguri Construction Division (PWD, JCD) for execution of work after a delay of one year. After completing the tender procedures, in August 2007, the work was awarded to a contractor for ₹ 1.06 crore with August 2008 as the target date of completion. EE, PWD, JCD rescinded (November 2011) the contract when financial progress of work stood at 51 *per cent* (₹ 0.54 crore) due to slow

Incomplete Regional Forensic Science Laboratory building at Jalpaiguri (June 2014)

[14] *(1) 50 head barrack at Taldangra PS and Simlapal PS, Bankura (2) 50 head Barrack at Belpahari and Banshpahari PS, Paschim Medinipur (3) 50 head Lady Constable Barrack for Belguma Police Lines, Purulia (4) Manikpara Beat House and Pirakata Outpost at Paschim Medinipur and Jhargram (5) 50 head Barrack at Sitalkuchi PS, Coochbehar (6) Trainers' Hostel for CIF at Salua, Paschim Medinipur (Site was not selected as of August 2013).*

[15] *Physics, Chemistry, Ballistics, Toxicology, Footprints, Question Documents and Biology*

[16] *Both number of cases referred (annually 390, 360, 499, 626 and 700 during 2009-10 to 2013-14 respectively) as well as cases remaining outstanding at the end of the year (66, 46, 98, 115 and 185 respectively) were on the rise.*

progress in the work as only 70 *per cent* of the works were completed. Though the terms of contract made the contractor liable for payment of compensation of one *per cent* or less (as decided by the Superintending Engineer) on contract value for delayed execution of work, no such penalty was imposed.

The balance work, was, however, retendered and awarded to a new contractor only in May 2013 after a lapse of 18 months with the target date of completion fixed as March 2014. The project is still to be completed as of May 2014 having achieved a physical progress of 80 *per cent*.

Thus, the construction work could not be completed even after lapse of nine years from the date of release of funds. Besides, despite availability of funds, the Department did not expedite the work for strengthening RFSL for north Bengal districts.

2.1.8.7 Non-monitoring of construction project by Home Guard Directorate

In terms of Para 5.2 of the scheme guidelines, the financial management system for MPF scheme should have a system that would produce sufficient detailed information to manage the programme, and provide each level of management (State, Housing Corporation, District SP) with regular financial information for decision making and monitoring.

Lack of monitoring by Home Guard Directorate: During 2009-13, Home Guard (HG) Directorate submitted AAP for construction of barracks at 18 locations. An amount of ₹ 7.02 crore was approved by MHA. GoWB released ₹ 1.95 crore for nine barracks up to January 2013. HG Directorate, however, was not fully cognizant of the progress of work as of May 2014. This showed lack of monitoring by the Directorate in disregard to the requirement under the scheme.

Withholding of GoI funds: Test-check of records in four[17] selected districts also revealed that construction remained incomplete in all four cases till March 2014 mainly due to short-release of funds. Thus, withholding of GoI funds by the State Government instead of onward release to the executing agencies, affected physical implementation of projects.

The issue of non-completion of construction works was one of the major areas of concern pointed out in the earlier report of C&AG. The department intimated in December 2009 that necessary steps in this regard were being taken. However, the situation showed little improvement in terms of completion of infrastructural projects, residential and non-residential buildings, etc. though the same was one of the major priority areas under the scheme and often fund availability was not a constraint.

2.1.9 Mobility

MPF scheme also aimed to increase the mobility of the police force in order to enable them to effectively face the challenges and to respond quickly to crime by increasing the fleet strength of the police force.

2.1.9.1 Requirement and availability of vehicles

Shortage of vehicles: Since the Department did not prepare any perspective plan, audit could not evaluate the extent to which the mobility of the

[17] *Bankura, Bardhaman, Jhargram and Jalpaiguri*

Department has been augmented against the long term requirement. However, data on requirement made available by four[18] test-checked offices indicated acute shortage of vehicles. Against the requirement of 1219 vehicles, only 578 were available in these offices indicating a shortage of 53 *per cent* as shown in **Table 2.1.4.**

Table 2.1.4: Requirement and availability of various operational vehicles in four selected units as of March 2014

Category of Vehicle	Requirement	Actual availability	Shortage (*per cent*)
Heavy Motor Vehicle	83	31	52 (62)
Medium Motor Vehicle	136	71	65 (48)
Light Motor Vehicle	460	244	216 (47)
Motor Cycle	540	232	308 (57)
Total	**1219**	**578**	**641** (53)

Source: Data furnished by SPs of respective districts.

Procurement of vehicles vis-à-vis AAP: Further, as per AAPs of 2009-13, 3467 vehicles were to be purchased by the Department against which 1255 (36 *per cent*) were purchased at a cost of ₹ 43.01 crore[19] as indicated in **Table 2.1.5.**

Table 2.1.5: Status of utilisation of funds in respect of mobility during 2009-14

(₹ in crore)

Year	Name of directorate	Total vehicles Approved as per AAP		Fund released by Department (percentage wrt approved cost)	Number of vehicles purchased	Amount utilised as per UC (percentage wrt approved cost)
		Number	Cost			
2009-10	**WBPD**	452	12.02	11.86 (99)	466	11.83 (100)
	KP	116	6.21	6.88 (111)	108	6.88 (100)
	HG	35	1.85	0.09 (5)	1	0.09 (100)
	Total	**603**	**26.10**	**18.83 (72)**	**575**	**18.80 (100)**
2010-11	**WBPD**	259	15.25	10.67 (70)	164	10.67 (100)
	KP	166	9.24	4.78 (52)	181	4.78 (100)
	HG	31	0.95	0.62 (65)	28	0.62 (100)
	Total	**456**	**25.44**	**16.07 (63)**	**373**	**16.07 (100)**
2011-12	**WBPD**	856	27.87	4.47 (16)	86	3.17 (71)
	KP	157	4.43	4.15 (94)	149	4.15 (100)
	HG	2	0.02	0.02 (100)	2	0.02 (100)
	Total	**1015**	**32.32**	**8.64 (27)**	**237**	**7.34 (85)**
2012-13	**WBPD**	399	16.28	1.99 (12)	60	0
	KP	712	28.69	0.69 (2)	9	0.69 (100)
	HG	12	0.29	0.11 (38)	1	0.11 (100)
	Total	**1123**	**45.26**	**2.79 (6)**	**70**	**0.80 (29)**
2013-14	**WBPD**	199	8.55	0	0	0
	KP	60	3.17	0	0	0
	HG	11	0.95	0	0	0
	Total	**270**	**12.67**	**0**	**0**	**0**
Grand Total		**3467**	**141.79**	**46.33 (33)**	**1255**	**43.01 (93)**

Source: Data provided by the directorates

It would be evident from the table above that no funds were released and no vehicles purchased during 2013-14, though 270 vehicles were targeted for purchase in the AAP 2013-14.

[18] *SP Bardhaman, SP, Dakshin Dinajpur, SP Jalpaiguri and Barrackpore Commissionerate*

[19] *The expenditure does not reflect the total cost of 1255 vehicles as in some cases, though vehicles were delivered UCs are yet to be submitted.*

Thus, the Department failed to augment its mobility as intended in the AAPs. Audit observed the following irregularities in procurement and utilisation of vehicles.

2.1.9.2 Procurement of inadmissible vehicles

MPF scheme guidelines permitted purchase of only operational vehicles like jeeps, motor cycles, medium/ heavy vehicles, while procurement of cars was inadmissible. This was also reiterated while approving AAP 2012-13. However, three[20] Directorates procured 23[21] cars at a cost of ₹ 1.44 crore during the scheme years 2011-13 in violation of scheme guidelines.

2.1.9.3 Non-repairing of Mine Protected Vehicle

A mine protected vehicle (MPV) (procured in July 2005) deployed under SP, Bankura met (September 2007) with an accident due to rash driving. The department did not take any action to repair the vehicle, though SP Bankura wrote to the Department in March 2008 for its repair. The estimated cost of repair obtained from the Ordnance Factory (OF), Medak in December 2008 was ₹ 7.28 lakh. But instead of repairing the vehicle which was evidently serviceable, the Department purchased (May 2011) a new MPV at a cost of ₹ 87.89 lakh for SP Bankura. The damaged vehicle, however, continued to lie unattended in the open, though the utility of the vehicle would be evident from the fact that the SP took up the matter regarding its repair once again in December 2011, but by that time the estimated cost of repair had escalated to ₹ 62.18 lakh.

Damaged Mine protected Vehicle at Bankura (April 2014)

Due to inaction in getting the MPV repaired in December 2008, the repair cost of the MPV has increased exorbitantly thus making it unviable.

The department did not offer any cogent reason for not undertaking timely repairs of the damaged MPV.

Thus, augmentation of mobility as desired under the scheme remains largely unachieved in the absence of long term perspective plan. The department also could not achieve targets set forth in AAPs. These factors, coupled with procurement of inadmissible vehicles, prolonged the inaction in augmentation of mobility of police force.

2.1.10 Weaponry

Upgradation of weaponry is of utmost importance for the police force to meet the challenges of terrorist and criminal activities. The position of arms actually received *vis-à-vis* arms planned for procurement during 2009-14 is shown in ***Appendix 2.1.4***. It was observed that out of 12605 arms planned for

[20] *KP, HG & WBPD*

[21] *KP procured four Ambassador Classic 1800 at a cost of ₹0.19 crore in MPF year 2011-12; HG procured six Ambassadors valued ₹0.32 crore in 2010-11 and one Innova ₹0.11 crore in 2012-13; WBPD procured 12 Maruti SX 4 cars valuing ₹0.82 crore, under MPF scheme 2011-13.*

procurement under AAPs, only 6089 arms (48 *per cent*) were received by the State indicating a wide gap between requirement and procurement of modern arms for the police forces. While 63 *per cent* of arms were procured for WBP, KP received only 21 *per cent* of its requirement.

The following irregularities in procurement of weapons were noticed during the test-check.

2.1.10.1 Non-receipt of weapons despite payment

As indicated below, there were two instances where 175 weapons were not received though two to four years had elapsed since payment of ₹ 3.03 crore towards their costs.

- ***Non-receipt of submachine guns from ITBP:*** Director, Security, West Bengal made a payment of ₹ 2.70 crore to Director General, ITBP, HQ, New Delhi in December 2011 for supply of 150 MP5A3 sub-machine guns and 50 MP5A4 submachine guns. However only 50 MP5A4 weapons were received (May 2012). Despite writing to MHA (February 2014), remaining 150 MP5A3 have not been supplied (as of June 2014) though more than two years have elapsed since payment.
- ***Delayed sanction of funds by Department leading to non-procurement of weapons:*** For purchase of 25 MP5A3 weapons along with accessories for KP, MHA had instructed KP to pay ₹ 0.33 crore by July 2012. KP moved the Department on 25 July 2012 but no further action was taken till August 2012. MHA repeatedly warned the department (08 August 2012 and 21 August 2012) that unless the amount was paid expeditiously, supply of weapons would be affected for other States also. The department, however, issued sanction order and released the amount only in September 2012. By that time the prices of these weapons increased due to increase in exchange rate of currency[22] and MHA, in January 2014 requested KP to pay additional cost towards the increased rate. The payment towards additional cost is yet to be made by KP, resultantly the weapons had not been supplied as of June 2014. Thus, procedural delays resulted in accrual of additional liability to Government besides delay in equipping the KP with the requisite weapons.

2.1.10.2 Non procurement of weapons due to improper planning

As a part of AAP 2009-10, MHA approved (July 2009) a proposal of the department to procure 50 MP7 submachine guns at a cost of ₹ 0.50 crore including ammunitions. In October 2009, MHA intimated that field trial on no cost no commitment basis be conducted before its induction as it had not been trial tested by any of the forces in India, nor its ammunition produced by the OFB. After lapse of three years, in November 2012, Director (Security) citing inability to conduct field trial, advised WBPD to procure some other weapons. WBPD, however, decided (December 2012) not to write to MHA in this regard on the plea that it would not serve any purpose. Thus, improper planning coupled with subsequent inaction resulted in non-utilisation of the funds.

[22] *Exchange rate of one Euro increased from ₹68.61 to ₹83.93.*

2.1.10.3 Shortage of arms in selected units

Data received from five[23] test-checked units out of 19 SPs and five Commissionerates revealed noticeable gaps between the requirement and availability of various arms as of March 2014 as shown in **Table 2.1.6**:

Table 2.1.6: Requirement and availability of various weapons as on March 2014 in five test-checked units

Name of weapons	Requirement	Availability	Shortage	Percentage of shortage
9 mm pistols	1251	667	584	47
9 mm carbines	134	75	59	44
7.62 SLRs	3280	890	2390	73
INSAS rifles	558	257	301	54
AK-47 rifles	303	31	272	90
MP-3 pistols	222	0	222	100
Tear Gas guns	200	94	106	53
Under Barrel Grenade Launchers	155	0	155	100
7.62 Assault rifles	341	0	341	100
Sniper rifles	157	0	157	100
51 mm mortars	26	0	26	100
Automatic grenade launchers	26	0	26	100
Glock Pistols-19	294	20	274	93
5.56 mm INSAS LMGs	56	2	54	96
Anti-riot guns	181	38	143	79
Night Vision Sight for Rifles	30	0	30	100
Total	**7214**	**2084**	**5140**	**71**

Source: Data furnished by the five test-checked units

Against overall requirement of 7214 weapons, availability was only 2084 indicating 71 *per cent* shortage in weapons. Out of 16 types of required weapons, MP-3 pistols, Under Barrel Grenade Launchers, 7.62 Assault rifles, Sniper rifles, 51 mm mortars, Automatic grenade launchers and Night Vision Sight for Rifles were not available at all. Apart from this, there were seven items, the shortage of which was more than 50 *per cent.*

Thus, the desired level of preparedness remained unachieved owing to delay in getting supplies of arms even after release of payments, non-procurement of weapons owing to imprudent planning, etc. Given the fact that test-checked units were deficient in terms of availability of modern weaponry, the department needs to be more proactive in obtaining timely supplies of weapons.

During exit conference (September 2014) Principal Secretary replied that supply of arms by Ordnance Factory Board depended on the availability and productivity. Further, it was informed that the State formulated (May 2012) an arming policy to be implemented continuously within the next 10 years. Accordingly, it was expected that the shortages would be reduced.

2.1.11 Training and practice

Scrutiny revealed that the existing training system/ infrastructure in Swami Vivekananda State Police Academy (SVSPA), Barrackpore (formerly known as the Police Training College (PTC)) was far short of the norms prescribed by the Bureau of Police Research and Development (BPR&D) as shown in **Table 2.1.7**.

[23] *SP, Bardhaman, SP, Dakshin Dinajpur, SP, Jalpaiguri, Barrackpore Police Commissionerate and Howrah Police Commissionerate*

Table 2.1.7: Scale of practice *vis-à-vis* actual practice during 2009-14

Nature of weapon	Scale of practice per person as per guidelines	Actually done in Police Training college (Average)
0.303 Rifle	40 Rds	Not done
7.62 SLR	40 Rds	20 to 25 Rds
9 mm Carbine	50 Rds	15 Rds
9 mm Pistol	40 Rds	12 to 18 Rds
LMG	50 Rds	Not done
A.K. Rifle	50 Rds	20 to 22 Rds
5.56 INSAS	50 Rds	20 to 22 Rds
0.38 Revolver	36 Rds	Not done
12 Bore Pump Action Shot Gun	5 Rds	Not done
303 Anti-Riot Gun	10 Rds	Not done
Grenade	5 Gr.	Not done
GF Rifle With Launcher Tube	5 Rds	Not done
1" Light Pistol	2 Rds	Not done
37/38 mm Tear Gas Gun	4 Rds	1 Rd
51 mm Mortar	6 Rds/mint	Not done

Source: Records of SVSPA

Live training was not imparted for handling some of the weapons *viz.* LMG, 0.303 rifle, Anti-Riot gun, Grenade, Mortar, etc. while scale of actual practice, wherever done, was substantially lower than norms prescribed by BPR&D.

Thus, training in arms is an area which needs strengthening as deficient field training and practice with weaponry might result in reducing the performance of the police force.

During exit conference (September 2014) Principal Secretary stated that the present training manual is under revision. It was also informed that training is now also conducted using simulators.

2.1.12 Equipment

During 2009-14, out of ₹ 71.66 crore released for procurement of equipment, ₹ 62.39 crore (87 *per cent*) was utilised by the Department. It was seen that while utilisation of funds ranged between 90 and 92 *per cent* during 2009-12, it decreased to merely 23 *per cent* in 2012-13. No fund was released by MHA for this purpose during 2013-14. During 2009-14, out of 66384 equipment to be procured as per approved AAPs, 38715 (58 *per cent*) were procured pointing to slow physical progress in this regard.

The irregularities which came to notice in purchase and utilisation of equipment are indicated below.

2.1.12.1 Purchase of inadmissible items

As per MPF Scheme guidelines, equipments like Bomb disposal kits, Door Frame Metal Detectors, Hand Held Metal Detectors, Deep Search Metal / Mine Detectors, Closed Circuit Television & Motion Sensor, X-Ray Baggage Scanners etc. were to be procured. The guideline, however, proscribed purchase of office equipment[24], furniture[25] and items like mobile, laptops, etc. Violating these stipulations, ₹ 47.75 lakh was spent under MPF 2009-10 and 2012-13 by HG Directorate (₹ 45.81 lakh) and Criminal Investigation Department, WBPD

[24] *Fax machines, photocopiers, colour printers, duplicators, air conditioners, EPABX, etc.*
[25] *Computer tables, chairs, utensils, beds, mattresses, ropes, etc.*

(₹ 1.96 lakh) on purchase of three fax machines, two laptops, one Wi-Fi solution, four printers and 721 items of furniture ***(Appendix 2.1.5)***. Thus, funds provided for equipment were diverted for purchase of items not allowed as per the MPF scheme guidelines.

2.1.12.2 Unfruitful expenditure on FACTS

For detection of crime by finger print matching, a database of finger prints and bio-data of identified criminals were to be developed in KP. Digital finger prints of accused were to be taken in the divisions[26] and transmitted to headquarter via dial up connection.

Under Mega City Policing (MCP) 2006-07, WEBEL[27] installed (between April and July 2008) a Finger Print Analyzer and Crime Tracking System (FACTS) at Scientific Wing of Detective Department and Work Stations (WS) at five divisions of KP at a cost of ₹ 1.07 crore and ₹ 0.34 crore respectively. WEBEL, however, did not renew the Annual Maintenance Contracts (AMC) after its initial term expired in March 2009. The main server of FACTS machine, which was located at Scientific Wing of Detective Department, went out of order in May 2010 on account of mechanical problem. It was seen that no initiative was taken by the KP till September 2011 to get the machine repaired. Later between October 2011 and August 2012, though correspondence was made by KP authorities with WEBEL for repairing the FACTS, no development was noticed in this matter.

Thus, the intended benefit could not be derived from FACTS, an important equipment for investigation and detection of crime, as it remained non-functional for more than four years.

During exit conference (September 2014), it was informed that FACTS had become technologically obsolete at present. The fact, however, remains that owing to department's inability to repair the machine timely, the machine could not be utilised fruitfully and eventually lost scope for repair due to technological obsolescence.

2.1.12.3 Non-commissioning of IGVTDC project

With a view to addressing the challenges of traffic management in Kolkata, KP invited (February 2007) tenders for implementation of IGVTDC project[28]. The project sanctioned (February 2007) under Mega City Project (MCP) had eight[29] functional sectors. The execution of the project was awarded

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[26] *North Division, South Division, Central Division, East Suburban Division & Port Division*

[27] *West Bengal Electronic Industrial Development Corporation*

[28] *Integrated GIS based Automated Vehicle Tracking & Management (AVT&M), Area Traffic Control (ATC), Distress Call Response Management System (DCRMS) and Critical Public Place Surveillance System (CPPSS)*

[29] *1. Area Traffic Control at 42 locations initially with extendibility upto 250 crossing, 2. Recording system for CCTVs at 12 crossings with integration of 12 existing ones extendable upto250 crossing 3. Red Light Violation Detection at two crossings initially extendable up to 50 crossings 4. Automatic Vehicle Tracking System initially 100 vehicles extendable upto1000 vehicles. 5. Dial 100 Service, Landlines and Help lines integrated with GIS along with city premises/ holdings (Address location) 6. Distress Call Response Management System integrated with GIS 7. Integration of Wireless Control Room with Main control Room.8. CPPSS proposed for KP premises at Lalbazar including Lockups with night vision facilities extendable to other important vital buildings, installation of the city. Its initial requirement was for five buildings with extendibility up to 50 buildings.*

(February 2008) to Kerala State Electronic Development Corporation Limited[30] (KELTRON) at a cost of ₹ 28.51 crore which is to be paid on the basis of physical progress of work[31]. As per agreement, the installation and commissioning of the project was to be completed by December 2008. The installation and commissioning would be considered as complete only after successful conduct of the acceptance test and handholding for a period of six months. The warranty period of the projects was for five years after successful commissioning. There was also provision for liquidated damages to be charged at one *per cent* per week or part thereof for the delay in execution subject to maximum five *per cent* of the contract price. Any delay beyond five weeks would attract higher penalty to be decided by KP.

It was seen that KELTRON did not complete the work within the stipulated date. As per status report of KP in January 2013, none of the modules of system met even 10 *per cent* of the requirement as laid down in the tender. It was seen that though KELTRON delayed for about five years in commissioning the project, KP did not impose any liquidated damage. Instead, KP had paid more than what was due as per the payment schedule- 86 *per cent* of the cost (₹ 24.62 crore) was paid (April 2008 and February 2009) instead of stipulated 60 *per cent* (₹ 17.11 crore). This resulted in extension of benefit to KELTRON apart from blockage of government funds. Further, due to non-commissioning of the IGVTDC, the objective of efficient traffic management in Kolkata city remained unachieved.

During exit conference, the department admitted that the project could not be commissioned till now. It was further informed that some of the equipments had been damaged. The Commissioning of the IGVTDC project in near future despite investment ₹ 24.62 crore, thus appears doubtful.

2.1.13 State Forensic Science Laboratory

The scheme envisaged providing funds for State Forensic Science Laboratory (SFSL) facilities, for buildings for State Forensic Science Laboratories, Regional Forensic Science Laboratories, District Forensic Science Laboratories, Specialised laboratories like DNA test laboratory, Cyber cells, etc.

During 2009-14, though MHA approved ₹ 16.53 crore[32] for SFSL, sanction was accorded only once in February 2011 for ₹ 1.60 crore (13 *per cent* of funds approved under AAPs) against AAP of 2009-10 during these five years. Out of this, ₹ 1.59 crore was utilised. Though AAPs envisaged construction of nine buildings and procurement of 132 equipments during 2009-14, only 21 equipments were procured while none of the buildings could be completed.

Thus, the objective of strengthening SFSL facilities remained unachieved to a great extent as major part of the AAPs were not translated into actual

[30] *As per agreement (February2008) KELTRON was to supply, install, develop, customise, commission with optional expansion to the initial requirement and maintain all subsystems for proper functioning, train the employee of Kolkata Police for proper upkeep of the system*

[31] *20 per cent - on receipt of equipment , 20 per cent - on installation, 20 per cent - successful pilot run, 20 per cent - on final go-live, 10 per cent - on certification , and 10 per cent - after one year of installation & commissioning of the project.*

[32] *AAP 2009-10:₹3.44 crore; AAP 2010-11: nil; AAP 2011-12: ₹3 crore; AAP 2012-13: ₹2.56 crore and AAP 2013-14: ₹7.53 crore*

implementation. MHA also expressed its concern (February 2013) over infrastructure and functioning of the SFSL.

2.1.13.1 Shortage of technical manpower

The SFSL was running with acute shortage of technical manpower as of July 2012 (latest available data) as shown in **Table 2.1.8:**

Table 2.1.8: Technical manpower position in SFSL as of July 2012

Name of Post	Sanctioned strength	Men in position	Vacancy	percentage of shortage
Assistant Director	7	3	4	57
Sr. Scientific Officer	24	15	9	38
Scientific Officer	13	7	6	46
Sr. Scientific Assistant	4	2	2	50
Scientific Assistant	23	13	10	43
Laboratory Assistant	24	3	21	88

Source: Records of SFSL

Shortage of technical manpower in FSL ranged between 38 and 88 *per cent*. While approving AAP for the year 2012-13, MHA observed (March 2013) that FSL lacked manpower and desired improvement in this respect. It was further noticed that due to shortage of manpower, 17143 forensic reports across seven divisions[33] of investigation under the SFSL remained pending as of December 2013.

2.1.13.2 Non accreditation of State Forensic Science Laboratory

In January 2012, Directorate of Forensic Science Services, MHA intimated that accreditation by NABL[34] was the primary requirement to meet the international standards and requested the Director, SFSL to prepare a time bound plan with six specific steps[35] to be implemented within six months. It was noticed that as of March 2014 preparation of quality manual (*i.e.* the fourth step of the accreditation process) was in progress. Thus, the process of accreditation was far behind schedule.

2.1.13.3 Absence of Annual Maintenance Contract

Eight imported instruments valued at ₹ 1.62 crore required for vital investigation of SFSL were installed between June 1995 and November 2012. Scrutiny revealed that the warranty period of the instruments had expired after one year from the respective dates of installation. However, no AMC had been arranged for since then till March 2014. Though the Director, SFSL wrote (October 2013) to the Department seeking funds for AMC of these instruments, no response had been received. In the absence of AMCs, uninterrupted functioning of the sophisticated instruments could not be ensured. The SFSL however could not produce details of down time of the installed instruments.

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[33] *Biology, Physics, Chemistry, Ballistics, Toxicology, Foot print and questioned document*

[34] *NABL – National Accreditation Board for Testing and Calibration of Laboratories –an autonomous body under the Department of Science and Technology , GoI*

[35] ***Step 1**: Assignment of managerial responsibilities to the existing scientific staff; **Step 2:** Training on Awareness of norms of ISO and NABL Accreditation; Internal Audit/ Inter Lab Test Programme/ Proficiency Testing, etc., **Step 3:** Deciding scope of accreditation under NABL; **Step 4:** Preparation of quality manual and documents etc. **Step 5:** Calibration/ AMC of equipment from NABL Accredited laboratories, and **Step 6:** Final submission of application to NABL.*

During exit conference (September 2014), Principal Secretary informed that the department had a plan for complete revamping of SFSL.

2.1.14 Monitoring

The guidelines of MPF envisaged a monitoring mechanism (especially financial) that would produce sufficient detailed information to manage the programme, and provide each level of management (State, Housing Corporation, District SP) with regular financial information (consolidated and/ or dis-aggregated) for decision making.

The State Level Empowered Committee (SLEC) under the Chairmanship of the Chief Secretary was to monitor the implementation of the scheme. There are no specific norms for convening number of meetings in a year. SLEC usually holds its meeting to finalise its annual action plans. MHA also advised (February 2013) the State Government to implement time bound monitoring mechanism in the State. The issue of more proactive involvement of the Empowered Committee for monitoring and supervision on the progress of the Scheme was emphasised in the earlier report of C&AG on MPF. The department could not produce any record or information relating to meetings held by the Empowered Committee during 2009-14. As such, extent of oversight on implementation, which was one of the primary functions of the SLEC, could not be assessed by audit.

However, inadequacy in monitoring would be further evident by various instances of lack of transparency, violations of scheme stipulations, fate of funds handed over to various implementing units remaining unknown to department etc. as mentioned in preceding paras:

- Under-performance of police housing Corporations inspite of having substantial scheme funds at their disposal was indicative of lack of departmental monitoring and pursuance. This would be further supported by the fact that KPHIDCL attributed its underperformance *inter alia* to administrative bottlenecks (Para 2.1.8.5).
- Non-completion of the construction of RFSL, Jalpaiguri even after lapse of nine years from the date of release of funds and stoppage of work after completion of 70 per cent of work was indicative of slack pursuance by the department. (Para 2.1.8.6)
- Lax monitoring in disregard to the requirement under the scheme would be further evidenced from the Home Guard (HG) Directorate's lack of knowledge on progress of work of construction of barracks even after more than one year of receiving of funds. (Para 2.1.8.7)
- Issues like non-receipt of weapons despite release of payments to suppliers, process of accreditation of State Forensic Science Laboratory lagging far behind schedule would also indicate tardiness in monitoring and active pursuance at the highest level. (Para 2.1.10.1)

During exit conference (September 2014) department stated that there was no system of reporting and GoI also had not designed any reporting formats. However, department could have put in place proper formats for monitoring of the scheme as per its felt needs.

2.1.15 Conclusions

Implementation of schemes under Modernisation of Police Force was adversely affected by adhocism in the planning process instead of preparation of strategic plan with a long term approach.

The State Government showed lack of capacity in efficient use of Central assistance, which often led to non-release of full quantum of central assistance approved under Annual Plans. Department was irregular in onward release of funds. Substantial funds remained parked with two Police Housing Corporations due to their deficient capacity.

Scheme implementation was tardy with noticeable gaps between the targets and achievements under all components of MPF. The department failed to augment its physical infrastructure like residential and non-residential buildings as few construction works were completed. While substantial numbers of works did not commence, works which were in progress also lagged behind schedule. Instances of abandonment of works were also noticed. The department did not effectively pursue utilisation of funds released by it.

On mobility and weaponry front, the police force was not adequately equipped *vis-à-vis* requirements. This was further compounded by instances of purchase of inadmissible vehicles, irregular utilisation of vehicles and utilisation of MPF funds on purchase of office equipment. Costly equipment purchased under Mega City Policing either could not be commissioned as targeted or remained non-functional.

Though detailed information was not made available to audit on the monitoring activities of the State Level Empowered Committee, inadequacy of monitoring was evident from various instances of violations of scheme stipulations, and the noticeable disparity between the plan and the implementation.

2.1.16 Recommendations

Audit recommends for consideration that

- ***Department assess its requirement on a long term basis for preparation of a strategic plan.***
- ***Department ensure timely release of both the central and state shares. It should also ensure time bound utilisation of unspent central funds so as to avoid pooling of funds by Government of India.***
- ***Construction works be geared up to meet the targets. Department should also actively pursue expeditious utilisation of funds released by it.***
- ***Effective steps be taken for accreditation of State Forensic Science Laboratory.***
- ***Monitoring be strengthened so as to minimise deviations from scheme stipulations and to ensure timely and effective implementation.***

HIGHER EDUCATION DEPARTMENT

2.2 Working of Burdwan University

Executive Summary

The University of Burdwan (BU) has a jurisdiction spread over the districts of Bardhaman, Birbhum, Bankura and a part of Hooghly. The University has two faculties — Arts and Science -- encompassing 29 departments offering 38 post-graduate courses, six undergraduate engineering courses and seven diploma/ post diploma courses and three certificate courses. It has 163 colleges affiliated to it. The University also manages a professional college *viz*. University Institute of Technology within the University Campus. The performance audit undertaken between March and June 2014 covering the five year period 2009-14 brought forth deficiencies in the functioning of the University with respect to planning, management of funds, academic activities and oversight mechanism.

- ❖ Absence of Perspective plan encompassing goals for teaching and learning, research and development and human resource planning impeded the overall functioning of the University.
- ❖ There were several issues in respect of financial management. Adherence to due process was not ensured in Budget preparation. University obtained excess grants from the State Government by inflating the staff strength. Provident Fund was maintained without following crucial Government instructions such as creation of Pension fund, framing statutes for GPF, etc. Annual Statement of Accounts had not been prepared for the last 12 years indicating lax handling of financial affairs of the University.
- ❖ The research activities of the University did not present an encouraging picture as research output was modest. The University also had deficiencies in the IT front as adequacy of IT infrastructure was not evaluated and policies for IT security not formulated.
- ❖ There were shortages of class rooms, laboratories, etc.
- ❖ The University's initiatives in enhancing access, relevance and quality of education were sub-optimal. There was only a marginal increase in intake capacity of the University in PG studies despite increasing demand. The University started only three new courses during last five years. Quality Assurance Cell meant for planning, guiding and monitoring quality assurance and quality enhancement was not functioning as mandated.
- ❖ The University had noticeable shortage of manpower especially in teaching, leading to adverse teacher-student ratio which could affect the quality of learning. The recruitment process required streamlining as there was no regular system of reporting of vacancies and there were instances of flouting of recruitment norms. Adequate attention was not given to the capacity building of teaching staff.
- ❖ Oversight was tenuous as the Inspector of Colleges, Faculty Councils for Post Graduate Studies and the State Government failed in discharging their mandated monitoring functions. Further, State Government was not fully cognizant of the state of affairs of the University as its representatives in the Court and the EC did not attend the meetings.

2.2.1 Introduction

The University of Burdwan (BU) was established on 15 June 1960 under West Bengal Act XXIX of 1959[36] (Act) as a teaching and affiliating University. The present jurisdiction of the University is spread over the districts of Bardhaman, Birbhum, Bankura and a part of Hooghly. The University has two faculties, namely, Arts and Science, encompassing 29 departments offering 38 post-graduate courses, six engineering undergraduate courses and seven diploma/ post diploma courses and three certificate courses. It has 163 colleges affiliated to it. University also manages a professional college *viz*. University Institute of Technology within the University Campus. Moreover, it offers distance education through its Directorate of Distance Education (DDE).
Major activities of the University as defined in the Act are

- to provide for instruction and training in such branches of learning as it may think fit and to make provisions for research and for the advancement and dissemination of knowledge;
- to establish, maintain and manage colleges, libraries, museums and such other centres as it may consider fit; and
- to recognise any college as a constituent college or a professional college and to withdraw such recognition.

National Assessment and Accreditation Council (NAAC) accredited the University as B++ in 2007, which expired in March 2012.Further accreditation has not yet been done.

2.2.2 Organisational set up

Governor of West Bengal is the Chancellor of the University. The Court[37] is the highest authority in the University whereas the Executive Council (EC) is the principal decision making authority for day-to-day administration of the University. Besides these, the authorities of the University include the Faculty Councils for post graduate studies, the Council of Undergraduate studies, the Finance Committee etc. Overall functioning of the University is managed by these statutory authorities.

The Vice Chancellor (VC) exercises general control and supervision over all other officers of the University, teachers and employees. The VC is assisted by the Pro VC, Registrar, Finance Officer, Inspector of Colleges, Controller of Examinations and other officers.

2.2.3 Audit Objectives

Audit objectives are to examine and assess whether-

➢ there was proper planning to achieve the objectives of the University;

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[36]*The Act was subsequently replaced by the Burdwan University Act, 1981 which was also amended from time to time.*

[37]*The Court is a 74 member body comprising all 29 HODs, 15 members selected/ nominated by VC from Professors of Departments and Principals of colleges, eight elected members, five members nominated by the Chancellor and one special invitee apart from 16 ex-officio members. The Court has the power to establish University Departments, institutions, centres, libraries, etc., create and institute Professorships, Readerships, Lectureships, and officers, confer or withdraw/ cancel degrees, titles, diplomas, certificates, etc. and such other powers as provided by or under the Burdwan University Act*

- adequate funds were available and were utilised economically, efficiently and effectively for carrying out the activities;
- the academic and research activities including interventions for skill development were carried out effectively;
- there existed proper monitoring of the activities of the University and its constituent colleges.

2.2.4 Audit Criteria

- The Burdwan University Act 1981, First Statutes, Ordinances and Regulations and its subsequent amendments.
- Financial Rules of the University
- EC Resolutions
- University Grants Commission (UGC) Rules
- State Government's Orders issued from time to time

2.2.5 Scope, coverage and methodology of audit

Performance audit was conducted between March and June 2014 covering the period from 2009-10 to 2013-14. Records of the University including the University Institute of Technology and Directorate of Distance Education were test-checked. Records of 16 colleges were also test-checked on a random sampling basis. An entry conference, to explain audit objectives and methodology of audit, was conducted (March 2014) with the Additional Secretary, Higher Education where Registrar of the University along with other officials were also present.

The audit observations were discussed in an Exit Conference (December 2014) in which the Vice Chancellor and Registrar of the University were present, while the Higher Education Department was represented by the Special Secretary and Joint Secretary. Opinions expressed by the University/ Department have been duly incorporated in the Report. Besides, responses of the University/ Department received in two phases (November 2014 and December 2014) have also been duly considered.

Audit findings

2.2.6 Planning

As per the Statutes relating to Officers of the University (OU), the Registrar shall take necessary steps for execution of plans for development and improvement of Higher Education. The Development Officer shall look after the University and move the UGC and other funding agencies for implementation of the plans, programme submitted by the University, assist the Registrar in preparation and execution of different development schemes, plans and estimates of buildings and the like and to render such assistance as may be required by him for undertaking such projects.

Absence of plan: The University neither had a long term perspective plan nor prepared any annual plan during the period of audit. The University, however, submits a development proposal to UGC for every five year plan period based on the information consolidated from the various departments in

respect of utilisation of grants received from the UGC. Though University had a Planning Cell, it acted more for the purpose of allocation of funds rather than preparing plans for the University. During the entire 11th Plan period, it met only nine times, each time after the release of an installment from the UGC to apportion the funds among various Departments without reference to any proposal.

2.2.6.1 Status of University Grants Commission (UGC) XI and XII Plan

UGC's XI Plan (2007-12) envisaged enhancing access, relevance, quality and excellence of higher education, development of teachers, improving University administration and facility for students. UGC released 90 *per cent* of the allocated funds (except under merged scheme where it was 50 *per cent*) to the University, while the remaining 10 *per cent* (50 *per cent* for merged scheme) was to be released on reimbursement basis subject to actual expenditure. Position of funds allocated by UGC under its XI Plan and expenditure thereagainst is indicated in **Table 2.2.1**:

Table 2.2.1: Utilisation of funds received under UGC XI Plan (*Rupees in crore*)

Sl No	Item	XI Plan			
		Allocation	Release	Expenditure	Allocated funds forgone
1	General Development Assistance	8.68	7.81	8.27	0.41
2	Merged Schemes	3.80	2.04	2.98	0.82
3	Additional Assistance	2.00	1.80	1.90	0.10
4	Internal Quality Assurance Cell (IQAC)	0.05	0.045	0.04	0.01
Total		**14.53**	**11.69**	**13.19***	**1.34**

**Additional ₹1.50 crore to be reimbursed by UGC, Source: UCs sent to UGC*

Unavailed allocations pertained mainly to central facilities[38] (₹ 10.50 lakh), travel grant (₹ 16 lakh), publication (₹ 16.20 lakh), Visiting Professors (₹ 8.40 lakh), basic facilities for women (₹ 5.65 lakh), facilities for disabled (₹ 1.35 lakh), Career Counseling (₹ 7 lakh) and Additional Assistance (₹ 10 lakh).

Delay in construction inspite of availability of funds: The University, based on goals enumerated in the Eleventh Plan of UGC, had *inter alia* envisaged construction of laboratories of five[39] departments and one composite building for arts within the plan period (upto March 2012). It was noticed that despite extension of deadline for completion of the building by two years up to March 2014, University had failed to utilise the funds. The laboratories, though delayed, were completed by March 2014. Delay was attributable to failure of the Engineering Department in timely preparation of plan and estimates of the laboratories, while execution thereof also contributed to the impasse. Even after three years from the beginning of the XI plan period, the plans and estimates were not ready.

The above may also be viewed with the fact that a full time Development Officer, who was responsible for implementation of the plan, was not available for major portion of the plan period from April 2009 to January 2012, which could have affected the co-ordination and supervision of expenditure.

[38] *Health Centre, Computer Centre, Library, etc.*
[39] *Zoology, Physics, Statistics, Chemistry and Botany*

In its reply, the University stated that the development of the University was undertaken in a completely decentralised manner without active involvement of the Planning Cell. It was also pointed out that full amount could not be spent due to delayed release of fund by UGC. However, this was not borne out by facts as it was noticed in audit that UGC grants of ₹ 19.68 lakh (out of ₹ 1.90 crore released till December 2010) became refundable after completion of the plan period due to non-utilisation. As of date (November 2013) an amount of ₹ 6.18 lakh has already been refunded.

2.2.7 Financial management

2.2.7.1 Unrealistic preparation of budget for State Government grants

A temporary budget cell (formed every year) prepares the estimates of pay and allowances, retirement benefits etc. on the basis of the previous year's budget and submits it to GoWB which provides Maintenance Grant (salary and retirement benefits) and Additional Maintenance Grant (recurring non-salary expenses like electricity, telephone, etc.) to BU. The actual release of the grants is based on the quarterly requisition submitted to the GoWB indicating the amount required. Thus, the requisitioned amount for all the quarters should be more or less the amount of revised estimates prepared by the University based on the estimated expenditure on salary and other establishment cost like electricity telephone etc.

The position of RE, Requisition of funds, actuals and utilisation certificates furnished during 2009-14 is indicated in the **Table 2.2.2**.

Table 2.2.2: Revised estimates, Actuals and Utilisation Certificates furnished in respect of GoWB grants *(₹in lakh)*

Year	Revised Estimates	Requisition of Funds by B.U.	Variation with respect to RE (%)	Amount released by State	Actual expenditure	U.C furnished
2009-10	7262.37	7239.81	17	6700.97	6027.09	6700.97
2010-11	7400.00	10877.16	(-) 14	7350.21	8461.74	7350.21
2011-12	8100.00	12541.00	(-) 18	10455.49	9520.54	10455.48
2012-13	9250.00	10488.79	(-) 16	9189.71	10712.51	9189.71
2013-14	10293.59	11666.01	4	11438.46	9904.45	9107.04

Source: Budget documents and sanction orders

Inflated requisition of funds: From the above, it may be seen that during 2010-14, the requisitioned amount was much higher than the RE amount indicating large demand being submitted by the University. The University stated that the requisitioned amount included shortfall of the previous year. The reply is not factual as it was seen that though the expenditure was less than the grants received in 2009-10 and 2011-12, the requisitioned amount in 2010-11 and 2012-13 was still much higher than the revised estimates. Besides after the same was pointed out in audit, the University surrendered unspent grant of ₹ 23.31 crore in March 2014 indicating that in 2013-14, the University had requisitioned (₹ 116.66 crore) far more than the actual requirement (₹ 99.04 crore) resulting in subsequent surrender of the excess grants.

Submission of inflated UCs: It is also seen from the table above, that the University furnished UCs for the entire amount of grant received by it till 2012-13 including in 2009-10 and 2011-12 when the actual expenditure was, in fact, less than the amount of grant received.

Further following discrepancies came to notice during audit:

- **Deduction of PF from salary wrongly treated as expenditure:** Amount deducted from the employees' salary as their provident fund contribution and deposited to the Treasury in the Provident Fund Deposit Account was being treated as expenditure. Thus, during 2010-13 the expenditure was overstated by ₹ 27.12 crore on this account.

- **Excess requisition of funds:** The requisition of funds to the State Government exceeded RE by 13 to 55 *per cent* during four years (2010-14) out of five years audited indicating absence of correlations between budget preparation exercise and placement of requisition of funds.

- **Improper budgeting of Salary:** The State Government provides grants to the University for meeting the recurring expenditure on Salary. However it was noticed that the estimates prepared as well as the requisition furnished to State Government for grants was not based on calculation of salary for actual number of employees. The number of employees budgeted for was found to be not only in excess of the men-in position but also in excess of the sanctioned strength, as may be seen from the **Table 2.2.3**:

Table 2.2.3: Table indicating staff strength budgeted for *vis-à-vis* sanctioned strength and men-in-position

Particulars	2009	2010	2012	2011	2013
Sanctioned strength (as of March)	1653	1653	1653	1653	1653
Men in position (as of March)	1228	1203	1220	1266	1172
Budgeted posts	2076	2063	1812	1896	1775

Source: Information provided by Burdwan University

Thus, estimates for salary of employees, which accounted for approximately 90 *per cent* of the budget, were inflated. As the actual expenditure on salary component would be on the actual men-in-position basis, the grant received in excess was either being utilised for other expenditure or accumulated as surplus. This may also be viewed with the fact that the University has accumulation of surplus funds to the tune of ₹ 197.10 crore as of March 2014.

- **Ineffective Finance Committee:** Finance Committee, which had a mandate for submitting the proposals for the annual budget along with its recommendation to the EC for examination and approval, only recommended the estimates prepared by the Finance officer in a routine manner, without pointing out the any discrepancy. Thus, the control mechanism envisaged in the University statute for proper budgeting needed improvement.

- **Violation of GoWB's condition of Self-financing:** In July 2005, GoWB accorded approval to the creation of 128 posts for the UIT on the condition that it would not bear any financial liability connected with or incidental to the maintenance of the newly created posts and that the University authority would not bear the financial burden in respect of these 128 posts, as it would run on self-financing basis. Audit, however, noticed that despite UIT being envisaged as a self-financing institute, the University had been paying the salary of teachers from the State Government grants. During 2009-14, ₹ 10.28 crore was paid in violation of the above directives. The University budget during these years was

also prepared taking into account the salary of the UIT teachers. Scrutiny of the Accounts of the UIT for the years 2008-09 and 2009-10 (accounts for 2010-11 to 2013-14 have not been prepared) revealed that sufficient amount was available for payment of the salary to the teachers during these years.

In reply, admitting the audit observations, the University stated that the excess/shortfall in the grants from the State Government during the period of Audit (2009-14) would be adjusted in the current financial year, *i.e.* 2014-15. It also assured that care would be taken to avoid excess requisition of grants as well as excess UC in respect of grants in future. As regards payment of salary of UIT teachers from grants, it was stated UIT has taken the responsibility of disbursing the salary with effect from March 2014.

The University in its supplementary reply (December 2014) opined that payment of salary of UIT did not affect the Maintenance grant of the State Government as the receipts (₹ 12.32 crore) from UIT till date exceeded the expenditure on salary during 2009-14 (₹ 11.42 crore). The reply is, however, not tenable as the budget sent to the Government included UIT's salary portion. Further, accounts of the University and UIT were yet to be approved by the Court.

2.2.7.2 Receipts and expenditure

Receipts of the University include grants-in-aid from the State Government, funds received from UGC and other funding agencies, fees collected from students, etc. Receipts and expenditure incurred during 2009-14 were as under:

Table 2.2.4: Receipts and expenditure during 2009-14

Year	Receipts					Expenditure
	Grants-in-aid		Other agencies	University income	Total	
	Non-plan	Plan				
	(₹ in crore)					
2009-10	73.87	0.50	11.24	15.45	101.06	79.42
2010-11	74.83	0.00	14.06	15.98	104.87	98.72
2011-12	107.48	0.20	14.50	28.40	150.58	108.89
2012-13	100.37	0.40	17.54	27.10	145.41	128.39
2013-14	106.04[40]	0.00	13.29	28.52	147.85	114.60
Total	**462.59**	**1.10**	**70.63**	**115.45**	**649.77**	**530.02**

Source: Data provided by the University.

From the above, it is seen that income[41] from University's own resources increased during 2009-14 from ₹ 15.45 crore to ₹ 28.52 crore, (from 15 *per cent* to 19 *per cent* of their total receipts), which could meet between 16 to 26 *per cent* of their total expenditure during this period. The University, however, was dependent on State Government and other funding agencies as about 78 *per cent* of the expenditure had to be met from these grants.

2.2.7.3 Maintenance of Provident Fund

In accordance with Statute 3 (PF), the University had been maintaining a Contributory Provident Fund (CPF) for its employees where both employee and

[40] *University received ₹114.38 crore during 2013-14 from the State Government out of which ₹23.31 crore was refunded.*

[41] *Includes students' fees, examination fees, hostel fees, sale proceeds of forms, etc.*

the University contributed 8.33 *per cent* of pay drawn by each employee. The accumulated fund was to be invested in stipulated instruments. However, with effect from May 1999, State Government introduced West Bengal State-Aided Universities (Death cum Retirement Benefit) Scheme 1999 under which existing employees were given the choice of opting either for General Provident Fund (GPF) or for continuing with CPF. The rate of minimum subscription in GPF was fixed at 8.33 *per cent* while a maximum of 20 *per cent* of pay could be deposited by each employee. No contribution was to be made by the University in the GPF. The employee's contribution including interest thereon was to be transferred to GPF account as opening balance.

Non transfer of employer's contribution in the CPF to Pension fund

Government subsequently stipulated (September 2001) that in case of employees who had opted for GPF, the employer's share of contribution to the CPF with accrued interest thereon[42] should be credited to a Pension Fund to be created. The University was also to amend statutes of CPF and to frame statutes of GPF. No evidence was shown to Audit to show the creation or operation of any Pension fund by the University. Audit further noticed that:

- The amount of employers' contribution in the CPF was being transferred only on the retirement/death of the particular employee who had opted for GPF. However this was being transferred to the General fund account[43] instead of to a separate pension account as per the Government guidelines. As of March 2013, an amount of ₹ 20.22 crore had been transferred to the General Fund account.
- Out of the available fund of ₹ 20.22 crore only ₹ 9.54 crore was invested in fixed deposits while the balance ₹ 10.68 crore remained in the General fund of the University.

In reply, the University stated that it has created a Pension Fund in the year 2003-04 and the creation of the pension fund had been reflected in the University balance sheet which would be placed before the statutory auditors while conducting audit of accounts. This, however, could not be verified as no statement of accounts was produced to Audit.

Other irregularities noticed in audit

Apart from the above, the following was also noted by audit

➢ **Excess subscriptions allowed in GPF:** In GPF, University permitted subscriptions in excess of the stipulated cap of 20 *per cent* of pay and termed it as Voluntary Provident Fund (VPF) despite having no provisions for the same. It even allowed interest on the excess deposited amounts. An amount of ₹ 52.60 crore was so credited during 2001-13, which was a loss to the Government.

While accepting the audit observation, the University stated (December 2014) that necessary steps[44] have been taken to stop deducting

[42] *including any amount of university's contribution which had already been drawn as final withdrawal*
[43] *All moneys received by, or on behalf of the University either as dues of the University or for deposit, remittance or otherwise, shall be credited to the General fund.*
[44] *Circular has been issued in September 2014 stopping the practice on an ad hoc basis pending decision of the Executive Council.*

subscription in excess of 20 *per cent* of pay of the employee in the GPF from the pay bill of September 2014.

➢ **Irregular payment of interest on PF balances of retired teachers:** State Government suffered losses as University paid interest on PF amounts retained in Treasury by retired teachers on extension. During 2009-14, ₹ 2.87 crore (₹ 1.23 crore already paid as interest in respect of 30 retired teachers and ₹ 1.64 crore accrued on 25 retired teachers on extension) was borne by the University on account of interest paid/payable on the retained PF amount.

The University in its reply stated (March 2014) that it had been a long standing practice to retain a portion of PF amount of retired teachers on extension to enable University to recover any amount against non-refund of any books or non-adjustment of any advance, which these teachers were allowed to draw in academic interest during their period of extension.

The reply was not acceptable as there was no provision for retaining GPF after superannuation and the practice purportedly meant for safeguarding the interests of the University was causing loss to Government. There was further loss to the Central Government as the interest earned was exempted from income tax.

During Exit Conference (December 2014), Vice-Chancellor stated that instead of withholding of PF amount, 50 *per cent* of gratuity amount could be withheld which would not result in interest burden on the state government. He said that the matter would be considered in the next Finance committee meeting.

The University in its supplementary reply (December 2014) informed that the matter had been referred to the Executive Council.

2.2.7.4 Non-preparation of accounts

The University Statutes and the Act stipulate that the Finance Officer shall prepare Annual Statement of Accounts within six months of the close of the financial year and the EC is to approve it and submit to the Court and the State Government. It was seen that the Court approved the accounts for the years 1999-2000, 2000-2001 and 2001-02 together in November 2010. Thereafter, accounts have not been prepared for the last 12 years (2002-03 onwards). Audit noted that the EC and the Court also did not pass any resolution regarding non-preparation of annual accounts.

Further, it was seen that University prepared separate Accounts for DDE and UIT. As such, the Statement of Accounts of the University did not exhibit the complete picture of the state of affairs of the University.

In reply, the University stated that Annual Accounts with Balance Sheet up to 2011-12 have been prepared and placed before the Finance Committee held on 27th August, 2014. The Finance Committee had approved the Accounts for placing it before the Executive Council. The combined Annual Accounts of the University including the University Institute of Technology and the Directorate of Distance Education was also under preparation.

2.2.7.5 Internal Audit

The Act stipulates that the Court shall have a continuous internal audit and the report of such audit shall be submitted to the State Government as soon as possible after the end of every financial year.

It was seen that University did not undertake annual internal audit. The first internal audit report, submitted to the Finance Committee in August 2014 covered the period from the inception of the University till March 2013. In its supplementary reply, University stated (December 2014), the report was approved by Court.

2.2.8 Academic and research activities

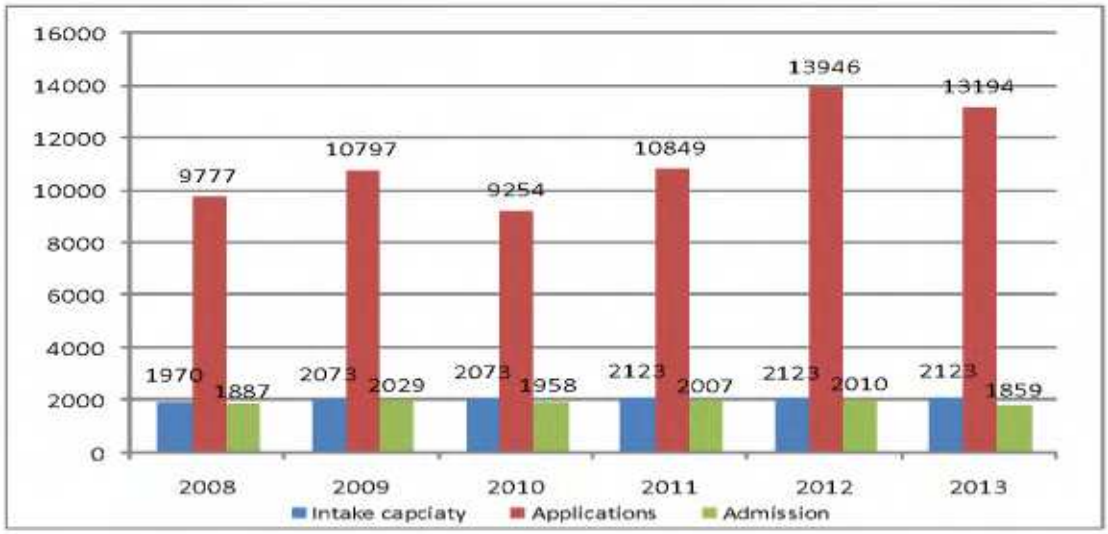
2.2.8.1 University's performance in enhancing access, relevance and quality of education

UGC Plans are directed towards enhancing access, relevance and quality of higher education. University's performance in these areas is discussed below.

Access

The intake capacity, number of applicants and number of students admitted during 2008-13 is indicated in the Chart below.

Chart 1: Intake capacity, number of applications received and number of students admitted during 2008-13



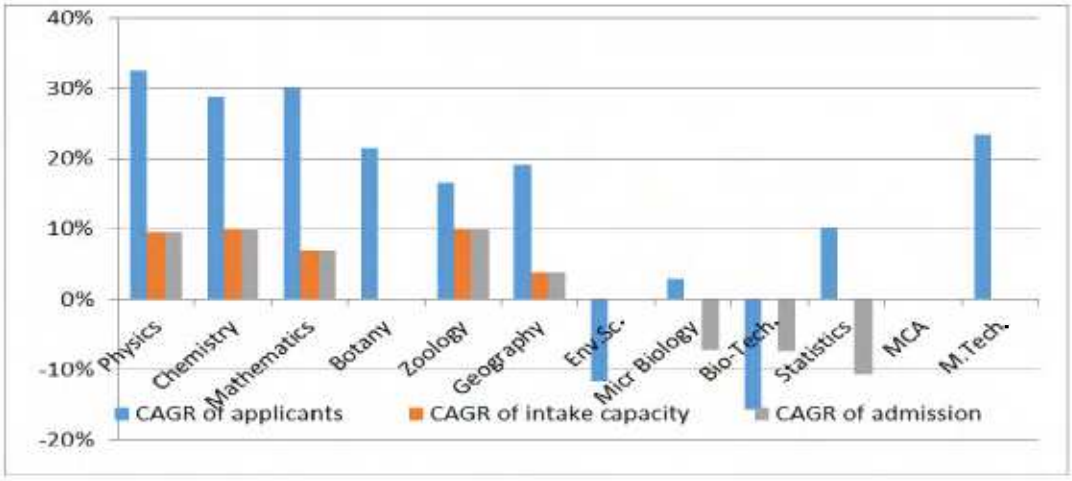
Source: Figures provided by Faculty councils

Audit noted that during 2008-2013, the intake capacity of the University (PG courses) increased from 1970 to 2123. Capacity increase was noticed in five Science Departments *viz.* Physics (30), Chemistry (28), Mathematics (30), Zoology (30) and Geography (10) from 2009-11 session. There was no increase in Arts Faculty, though one new course on Education with a capacity intake of 25 students was started. It would be pertinent to note that during the same period the undergraduate enrolment registered an increase of 26 *per cent* increasing from 65187 to 88087.

The Chart above shows that there was demand for courses with the number of applicants ranging from four to six times the intake capacity. This indicated that there was much scope for the University to enhance access. Audit further

analysed the trend in number of applicants, intake capacity and admission for the period from 2008-13 in respect of individual courses. The result of analysis is shown in ***Charts 2*** and ***3***.

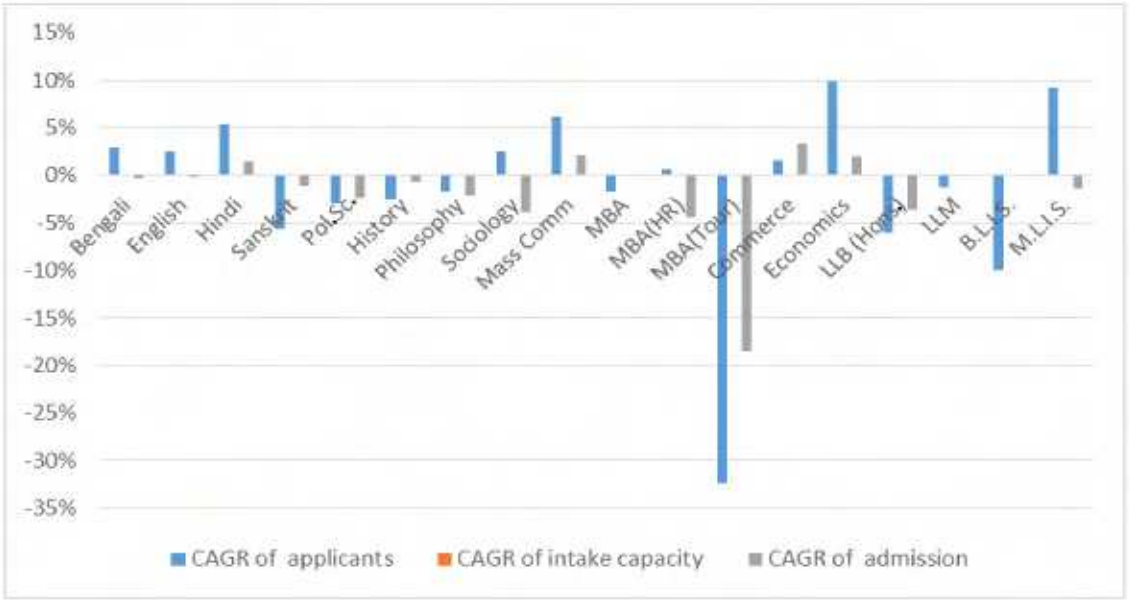
Chart 2: Compounded Annual Growth Rate (CAGR) in number of applicants *vis-à-vis* intake capacity in Science Courses during 2008-13



Source: Figures provided by Faculty councils

As would be evident from the Chart above, the demand grew in nine[45] courses. However, against these nine, capacity intake increased only in five[46] courses. In case of Botany and M. Tech. despite demand, there was no increase in intake capacity. Negative CAGR in applicants was registered in two courses (Environmental Sciences and Biotechnology) indicating less demand for these courses.

Chart 3: Compounded Annual Growth Rate in Applicants *vis-à-vis* intake capacity in Arts Courses



Source: Figures provided by Faculty councils

Similar analysis of Arts courses as shown in ***Chart 3*** indicates that demand increased in nine[47] subjects while it decreased in other nine[48]. However, there

[45] *Physics, Chemistry, Mathematics, Botany, Zoology, Geography, Micro-biology, Statistics and M.Tech.*
[46] *Physics, Chemistry, Mathematics, Zoology and Geography*
[47] *Bengali, English, Hindi, Sociology, Mass Communication, MBA(HR), commerce, Economics and MLIS*
[48] *Sanskrit, Political Science, History, Philosophy, MBA, MBA (Tourism), LLB, LLM and BLIS*

was no capacity addition in any of these subjects despite increasing demand. The University also did not undertake any study to assess the demands and employability of courses to increase its access and relevance.

Factors limiting access:

The University did not have adequate teaching staff and physical infrastructure to augment its access. Departments in the University were functioning with shortage of classrooms and laboratories that hampered their smooth functioning. Popular Departments in Arts Faculty were operating with class size of 185 students whereas those in Science Faculty reached 105. Norms for students per class or student: teacher ratio was also not made available.

In reply the University stated that in the backdrop of huge increase in undergraduate enrolment, students with comparatively low merit have been accessing PG Studies in different streams through distance mode by the DDE, the University of Burdwan. However, the reply is not relevant to the question of upgrading the physical infrastructure.

Relevance of courses and employability

One factor to judge the relevance of the courses conducted by the University is employability of the students who complete the courses It also demands introduction of new courses and continuous updating of course syllabi. The University introduced only three[49] new courses in the Arts Faculty during the last five years. New courses in emerging areas particularly Nano Science as recommended by the UGC were not introduced. Despite UGC stipulation of revising the syllabi every three years, it was not updated, the last of such revision having been done in 2008. Non-revision of syllabus should be viewed with the fact that Dean of the Faculty Councils (who is the Vice-Chairman of FC) had not been in place since December 2012 and the FCs tasked with the revision of syllabus and introduction of new courses met infrequently[50]. Thus, efforts from the University were lacking to render the courses relevant to the current scenario.

In reply, the University stated that in 2014, Choice Based Credit System (CBCS) was introduced in the Post Graduate courses and Syllabi were recast as per the need of the new system.

Audit made an effort to assess the employability of the University courses from the data of students employed through the placement cell of the University. During 2009-13, out of 3981 PG students passed, only 320 appeared for the placement procedures out of which only 33 students were selected. No data are available for independent placements (not through the placement cell).

However, as per IQAC (Internal Quality Assurance Cell) report for the year 2011, it was reported that 40-50 *per cent* of the students were getting qualified for the fellowships and other Government research organisations and services. It also stated that rest of the students were getting jobs in schools through School Service Commission and in private companies. The University,

[49] *Master of Education (capacity-25) in University campus and PG courses in Urdu (30) and Santali (40) in constituent colleges*

[50] *Against required 30 meetings during 2009-14 (six times annually), FC for Arts met 17 times (two to five times annually) while FC for science met 11 times (annually one to four times).*

however, did not maintain any record in this regard. As such, audit could not ascertain the employability of the courses offered by the University.

Quality

As per UGC directive, each Higher Education Institute (HEI) has to establish Internal Quality Assurance Cell (IQAC), which is meant for planning, guiding and monitoring Quality Assurance and Quality Enhancement activities of the HEIs. The functions of the IQAC *inter alia* includes preparation of the Annual Quality Assurance Report (AQAR) of the HEI based on the quality parameters/ assessment criteria developed by the relevant quality assurance body (like NAAC, NBA), in the prescribed format. IQAC report had been prepared only up to 2011.

In reply, the University stated that IQAC was currently functional and was preparing the reports (AQAR) for 2012 and 2013 as per new guidelines and format of the NAAC.

In order to assess the quality of the University, audit compared certain parameters adopted by UGC[51] for A-grade Universities with those of Burdwan University. The results are indicated in ***Table 2.2.5.***

Table 2.2.5: Determinants of quality and quality-gaps in Burdwan University[52]

Parameter	Bench mark as in A grade Universities	Burdwan University as of March 2014	Quality gap (in number and as percentage of benchmark)
No. of teaching departments per University	34	29	5 (15)
No. of sanctioned faculty positions per University	432	295	137 (32)
No. of filled-up faculty positions per University	329	200	129 (61)
Percentage of faculty positions vacant	24	32	-8 (- 33)
Number of faculty members with Ph. D. degree	432	160	272 (63)
Percentage of teachers without Ph. D. degree	0	40	-40
No. of teachers per Department per University	10	7	3 (30)
Number of books in library	352886	250223	102663 (29)

Source: UGC's publication and data provided by University

As is evident from the Table, the University was behind the benchmarks for A-grade Universities. Among these, availability of faculty was an area of major concern.

Non-maintenance of Performance Assessment Reports

Performance assessment of staff is imperative to quality assurance in any organisation. In Burdwan University, it was, however, seen that there was no system of assessing the performance of its employees.

The University also did not maintain documents vital to efficient human resource management like Service Books (SB) and seniority list of its employees. Service Books in respect of only seven *per cent* (five teachers, one

[51] *as indicated in UGC's publication 'Higher Education in India: Strategies and Schemes during Eleventh Plan Period (2007-12) for Universities and Colleges'*

[52] *BU was accorded B++ grade from 2007 to 2012; further accreditation has not been done.*

officer and 71 non-teaching staff out of total 1172 employees) of its employees were available.

During Exit Conference (December 2014), Vice Chancellor stated that the University was planning to maintain Service Books for all staff and a deadline would be fixed within which Service Books for all staff could be opened. As regards performance assessment, he stated that the matter would be looked into.

2.2.8.2 Percentage of passing

Number of students who appeared and passed during 2009-13 for UG and PG examinations is indicated in the **Table 2.2.6:**

Table 2.2.6: Students appearing and passing

Year	Under Graduate		Post Graduate	
	Number appeared	Number passed (*per cent*)	Number appeared	Number passed (*per cent*)
2009	41749	29071 (70)	1432	1404 (98)
2010	42293	25125 (59)	1843	1768 (96)
2011	43103	24157 (56)	1975	1940 (98)
2012	50190	33370 (66)	2080	2046 (98)
2013	Not Available		2099	2041 (97)

Source: Data provided by the University

It was seen that the pass percentage of UG courses fell all through 2009-11 from 70 to 56 *per cent* while in 2012 it increased to 66 *per cent*. In case of PG courses, pass percentage hovered around 96 to 98 *per cent*. Considering that undergraduate courses are conducted only in affiliated colleges, no attempt was made by the University to ascertain the reasons for such declining trends in UG results.

In its reply the University admitted its lapse to ascertain the reasons for the declining trends in the UG results and opined that:

- The existence of a number of degree colleges having inadequate infrastructure was the main reason behind such declining trend in the UG Results. Many of these Colleges were run primarily by Part-Time/Guest Teachers.
- There was a lack of sincerity on the part of the students regarding attendance in classes on a regular and sincere basis, especially among the students in the General Courses of Study.
- Non-availability of permanent Principal and Teachers in various Colleges was hampering the classes regularly as well as proper academic and administrative management of the Institutions.
- Moreover, the growing use of photocopy machines and the practice of note oriented study system on the part of students and teachers was also one of the reasons for such poor results.

While the impact of the above factors might be true though not measurable, the fact remains that the University did not take corrective action like disaffiliation of colleges, debarring of students from examination due to low attendance etc. to address these issues. University also could have taken designed the syllabi imaginatively to discourage or prevent rote learning.

2.2.8.3 Availability of manpower

The sanctioned strength of the teachers, officers and non-teaching staff of the University and the men in position against each for the month of March during 2009-13 is indicated in **Table 2.2.7**.

Table 2.2.7: Sanctioned strength *vis-à-vis* men-in-position

Category of staff	Sanctioned Strength	Men in Position as of March (percentage of shortage)				
		2009	2010	2011	2012	2013
Teachers	295	219 (26)	216 (27)	210 (29)	203 (31)	195 (34)
Officers	62	46 (26)	47 (24)	45 (27)	42 (32)	43 (31)
Non-teaching staff	1296	963 (26)	940 (27)	1011 (22)	975 (25)	934 (28)
Total	**1653**	**1228** (26)	**1203** (27)	**1266** (23)	**1220** (26)	**1172** (29)

Source: Information provided by Burdwan University

Noticeable vacancies in teaching posts and other key posts: As would be evident from the table above, there were noticeable vacancies in all categories of staff ranging from 23 to 29 *per cent* during 2009-13. The increasing vacancy percentages, especially of teaching posts, was a matter of concern. Further, in violation of the statute provision stipulating filling up of a vacancy of an officer within six months of a post falling vacant, the post of Registrar has been vacant since November 2010. Registrar being responsible for conducting elections to all authorities, maintaining the minutes of meetings of the authorities, etc., this had its adverse effects on the functioning of the University as evidenced in non-convening of Court meeting in 2011-12, only one meeting of EC in 2011-12, non-holding of election to the Court and EC, etc. It was also seen that key posts like Librarian, Deputy Librarian, Development Officer (DO) and the Publication Officer were vacant for periods ranging from more than two to five years. As already mentioned, absence of DO impacted the ability to execute the UCG XI Plan.

In case of UIT also, the University had been imparting higher technical education without sufficient teachers, technical staff and officers as there was overall shortage of 54 personnel (42 *per cent*).

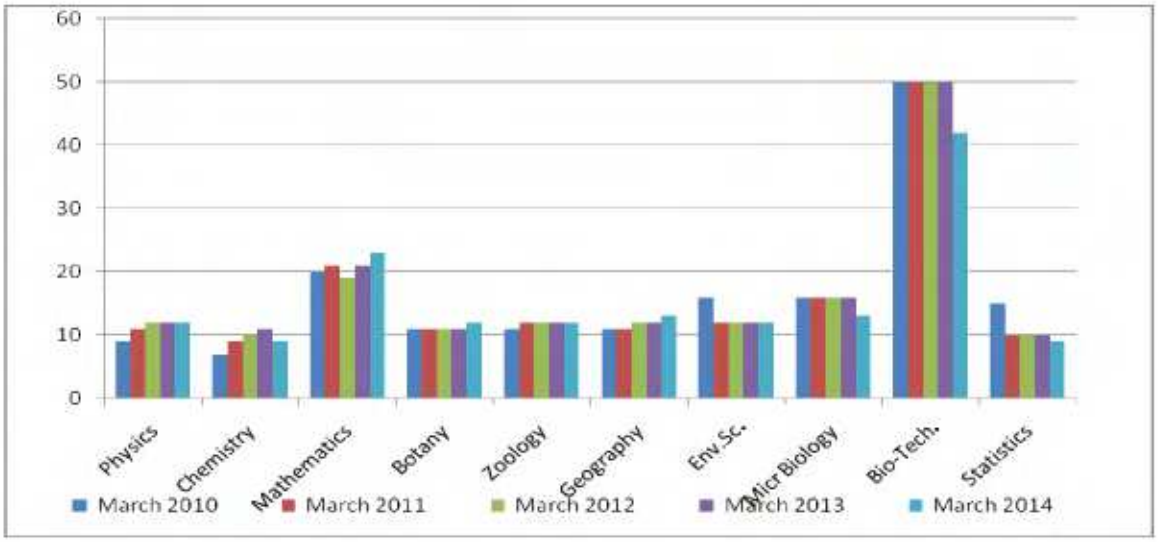
The University failed to recruit new staff timely as discussed subsequently.

Teacher- Student ratio:

UGC did not prescribe any norms as to teacher-student ratio. Audit, however, noted that despite having a marginal decrease in student strength in 2013 *vis-à-vis* that of 2009, the teacher student ratio became more adverse, declining from 1:18 to 1:20. While there were 219 teachers and 3877 students as of March 2009, it became 195 and 3869 respectively in March 2013. Audit, further analyzed the teacher student ratio department –wise as indicated in ***Chart 4 and Chart 5*** from which, it can be seen that:

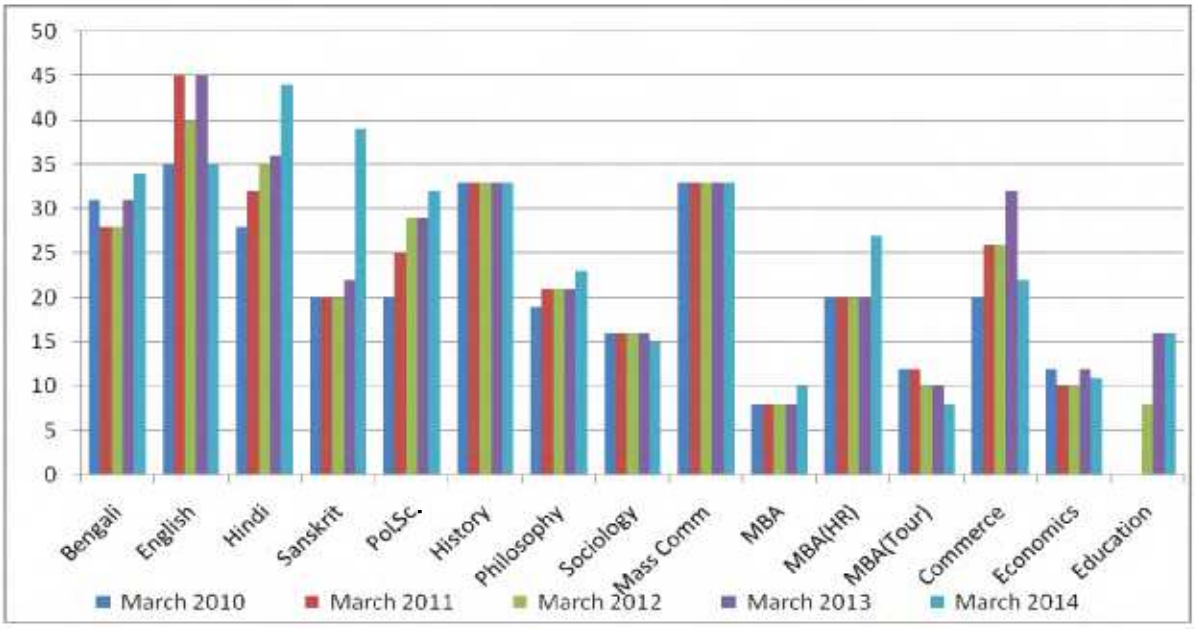
- There were significant variations in teacher student ratio department-wise. While at least in five subjects (Physics, Chemistry, Botany, Zoology, and MBA), it was around 10, in two (English and Bio-tech), it was more than 40.
- Science subjects with the exception of Bio-technology had better teacher student ratio than the arts subjects.
- Over the years, teacher student ratio declined in Physics, Chemistry, Mathematics, Botany, Geography, Bengali, Hindi, Sanskrit, Political Science, Philosophy, MBA, MBA (HR) and Education.

Chart 4: Department-wise teacher student ratio –Science



Source: Information provided by Burdwan University

Chart 5: Department-wise teacher student ratio –Arts



Source: Information provided by Burdwan University

Thus, failure of the University to fill up teaching vacancies resulted in adverse teacher student ratio in many subjects which was detrimental to the quality of education. Such shortage of teachers also resulted in establishment of departments without adequate staff strength and forgoing the UGC assistance for research purposes as indicated below:

- Out of the 27[53] Departments in the University, 12[54] did not have the minimum[55] stipulated sanctioned strength.

[53] *There are 29 Departments considering two subjects viz. Urdu and Santali taught in constituent colleges.*
[54] *Mass Communication, Biotechnology, Microbiology, Business Administration (H.R), Education, Computer Science. Environmental Science, Library & Information Science, Hindi, Tourism Management, Sociology and Statistics*
[55] *Every teaching department in the University should have minimum staff of one Professor, two Readers and an adequate number of lecturers along with the necessary supporting staff.*

- Statistics Department could not apply to the UGC for Special Assistance as it lacked the stipulated minimum number of faculty (six) in position (ranged from three to four during March 2009 to March 2013).

The University attributed this to mismatch between the University's demand and the UGC's sanction of posts. The reply is not tenable as it was noticed that in case of eight departments, UGC sanctioned posts remained vacant. As mentioned earlier, the problem was further compounded by the slackness in recruitment procedure.

During Exit Conference (December 2014), the Vice Chancellor stated that attempt would be made to rationalise the numbers of sanctioned posts in line with the demand of courses so that teacher-student ratio could be improved.

Recruitment

As per Statute 4 (O.U[56]), the Registrar shall be responsible for maintenance of service records of the officers, teachers and other employees of all the departments of the University and take necessary steps in respect of appointment of all categories of posts of officers, teachers and non-teaching staff and conduct all correspondence pertaining thereto on behalf of the University. However, it was seen that the Registrar does not *ab initio* initiate the process of recruitment keeping in view the overall vacancy position. Instead, the Registrar initiates the process only after the Departmental Committee (DC) of individual Departments informs the need to fill up a vacant teaching post through its resolution. As such, there was gap between the actual vacancy and the number of posts for which recruitment process was initiated. As against vacancy position of each post, the number of posts advertised and the number actually recruited during the last five years is as follows:

Table 2.2.8: Vacancy position, the number of posts advertised and the number actually recruited during 2009-14

As of March	Professor			Associate Prof			Assistant Prof			Officers		
	V	A	R	V	A	R	V	A	R	V	A	R
2009-10	15	6	1	26	7	2	35	12	5	16	5	0
2010-11	13	9	3	27	2	1	39	21	4	15	5	8
2011-12	14	11	3	28	11	0	43	34	0	17	11	1
2012-13	13	0	2	34	0	3	45	0	4	20	12	2
2013-14	13	12	1	38	17	2	49	31	11	19	7	8

V: vacancy, A: Advertised and R: Recruited *Source: University's records.*

Poor recruitment as all vacant posts were not advertised: As is clear from the table above, advertisement was not made for all the vacancies. Audit noted that as overall assessment of the vacancy position at each level was not made annually, only a fraction of the vacant posts was advertised which resulted in very few being filled up. Further, recruitment made against advertisement also presented a very bleak picture.

In reply, the University stated that considering the necessity of filling up the vacant teaching posts, the University Authority had already taken up the matter seriously. Most of the teaching posts had already been advertised. It also stated that despite their best efforts, some higher posts (e.g. Professor and Associate Professor) could not be filled-up for want of candidates. It added that for

[56] *Officers of the University*

selection of officers, advertisement and selection process will also begin very soon.

In its further reply (December 2014), University informed that almost all the teaching posts and officer posts had been advertised and the selection was under process. As regards non-teaching posts, it was stated that some posts were sub-judice and the recruitment process for other posts had to be withdrawn for technical reasons.

Recruitment in Directorate of Distance Education (DDE)

Subsequent to commencement of Directorate of Correspondence Courses[57] (DCC) in 1994, University engaged (between April and September 2002) 35 Office Assistants and 17 Grade IV Staff[58] on contractual basis against the sanctioned posts of 12 and 11 respectively. Audit observed that these 52 personnel were appointed substantively with retrospective effect from the date of joining in the contractual post by a mere order of the Executive Council in June 2010 without going through the University's existing recruitment process as mandated by the Act, Statutes and Ordinances. Thus, University not only violated the norms for appointment, but also appointed 29 staff (23 Office Assistants and six Grade IV Staff) in excess of sanctioned strength. Out of these 52 staff, 42 were promoted to the next higher scale of pay in December 2011 and June 2012.

As would be evident from the above, the University bypassed its own norms of recruitment to extend undue benefit to some employees.

In its reply, the University admitted (December 2014) that the appointments in excess of sanctioned strength had been made. The University attributed such appointments to work load associated with running of distance education courses. However, as regards rationale behind substantive appointment staff with retrospective effect, the University did not offer any comment in its reply.

Academic Staff Development Programmes

The teachers in the University are required to undergo Academic Staff Development Programmes like orientation/ refresher courses. It was seen that out of the 200 teachers in position (March 2014), only 62 (31 *per cent*) had undergone such courses during the last five years. No centralised database was maintained regarding the training attended by the teachers. Thus, the University neglected a crucial area of training of academic staff.

In its reply, the University admitted that presently there was no centralised database from which the data regarding the individual teacher participating in such courses could be retrieved.

2.2.8.4 Less expenditure on Research

The University received funds for research from funding agencies like UGC, Department of Science & Technology (DST), etc. The funds received were deposited into a common bank account where other receipts are also kept which made it difficult to separate the funds meant for different projects. As such, closing and opening balances provided by University did not match and the interest accrued did not get credited into individual projects.

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[57] *Subsequently renamed as Directorate of Distance Education*
[58] *Including one cyclostyle operator*

The funds position during 2009-13 in respect of research is tabulated below:

Table 2.2.9: Funds position in respect of research activities during 2009-13 *(₹ in lakh)*

Year	Opening Balance	Receipt	Expenditure	Closing Balance
2009-10	97.83	154.94	190.50	62.27
2010-11	63.00	356.28	44.79	360.28
2011-12	364.30	100.45	128.00	336.76
2012-13	336.11	547.51	360.37	521.48

Source: Data provided by University

As would be evident from the table above, University was not spending the major part of the amount received for research as the closing balance had increased from ₹ 62.26 lakh to ₹ 5.21 crore over the period 2009-13.

During 2009-14, 817 candidates (full time: 109 and part time: 708) were admitted for PhD programme. Stipend amounting to ₹ 10.79 crore was also paid during this period. PhD degrees were awarded to 446 candidates. However, owing to University's poor record-keeping in regard to research outcomes like number of research papers published etc., audit could not assess the performance of the University in research activities.

University did not analyse the reasons for this modest performance in research output.

In reply the University stated that it would take necessary steps and also ensure proper utilisation of funds and enhance support to the researchers.

2.2.8.5 Decline in usage of Library facilities

The University has a central library and 21 departmental libraries. The University purchased 17057 books during 2009-14 and as of March 2014, University has 250223 books. Despite having such sufficient collection, the numbers of users of the library have declined over the last five years as indicated in **Table 2.2.10**.

Table 2.2.10: Trend of users and books issued to various users during 2009-14

Year	Student	Teachers	Researchers	Others	Total	Number of books issued to			
						Students	Reading Room	Teachers	e-Resource users
2009-10	1968	306	375	719	**3368**	19055	4025	5232	2604
2010-11	1982	310	385	739	**3416**	14100	4287	3249	1747
2011-12	1989	313	388	746	**3436**	15075	5187	2906	1325
2012-13	2000	185	429	787	**3401**	11419	3467	3228	726
2013-14	2005	191	452	798	**3446**	11070	3757	5119	1319

Source: Data provided by University

The University, in its reply, attributed such declining trend in the use of library, to the following:

- Selective study by the students of the class lectures and notes without any detailed study of the syllabus.
- Books recommended for purchase by the Departments, not being as per students' demands.
- Shortage of staff - only two staff members (Dy. Librarian and Asst. Librarian) were available against a sanctioned strength of six officers. The post of Librarian was vacant from August 2007 inspite of having been advertised for thrice. The posts of Deputy Librarian and two posts

of Assistant Librarian were also vacant during major part of the last five years.

In reply, University stated that the data of e-resource users is more considering the Internet connectivity through wire and wireless modes (Wi-Fi) within the campus. But, at present, the University lacks the necessary mechanism to record these outside-library uses.
The reply, however, did not address the issue of non-filling of vacant posts.

2.2.8.6 Lack of policy on Information Technology infrastructure

National Assessment and Accreditation Council (NAAC) assesses the IT infrastructure in a University based on the availability of ICT facilities such as LAN facility, number of nodes with internet facility, computer-student ratio, access to on-line teaching and learning resources, availability of IT policy in respect of Information Security, Network Security, Risk Management, etc. The University has a campus-wide fibre optic LAN with more than 1700 nodes having access to National Knowledge Network.

However, it was seen that the University had not made any effort to assess the number of computers available and number of computers to be provided to the teaching staff and students for accessing the LAN. There was no policy for providing online teaching and learning resources to the faculty and students for quality teaching, learning and research. Further, University did not formulate any IT policy with regard to Information Security, Network security, etc.

The University did not respond to the above issues pointed out by audit

2.2.9 Monitoring

Oversight functions as to UG education primarily lies with the Inspector of Colleges (IC) while that of PG education is with the Faculty councils for Post Graduate Studies. The Act empowers the State Government with overall monitoring of the University through its representatives in the Court, the EC and other authorities of the University.

2.2.9.1 Inspection of affiliated colleges

In case of UG education in affiliated colleges, IC was mandated to inspect the colleges and report on their functioning. As per Statutes, each of the colleges was to be inspected annually. However, only six to 21 *per cent* of the colleges were inspected annually during 2009-14.

It was seen that Inspection Reports were not prepared in the Statutory Format. Test-check of 16 such Inspection Reports revealed that the inspections were carried out to extend the affiliation for a particular subject or for the establishment of new colleges. The Inspection Reports were not followed up to ensure the implementation of recommendations.

In its reply, the University admitted that statutory inspections of colleges were not carried out due to some unavoidable circumstances as the Inspector of Colleges was entrusted with different kinds of administrative jobs in the University besides inspection for the last few years.

The Audit team test-checked 16 colleges out of 163 colleges under jurisdiction of the Burdwan University in the district of Bardhaman, Bankura, Birbhum and

Hooghly. On scrutiny of the available records furnished by the colleges, the following deficiencies in infrastructural facility were observed by audit team.

- Seven colleges were not NAAC accredited.
- One NAAC accredited college did not renew the accreditation.
- Full time Principal posts were vacant in seven colleges. Principal's duties were being discharged by a teacher-in-charge appointed by Governing Body.
- Nineteen Honours Courses in 10 colleges were running only with part-time teachers. Out of the same, six colleges did not have any sanctioned post for Honours courses. This implied granting of affiliation to these colleges without ensuring the availability permanent teachers by the University.
- Libraries were running without any Librarian in four colleges.
- Of the Permanent teaching posts, more than 40 *per cent* are vacant in nine colleges.
- In 13 colleges where courses in general subjects were offered, number of students in general subjects were more than 100 in each class in contravention to University statutes regarding class size.

During Exit Conference (December 2014), Vice Chancellor opined that while some of the colleges had adequate infrastructure, working of many were a matter of concern.

In its supplementary reply (December 2014), accepting that the regular inspections could not be held, the University stated that inspection was only one of the mechanisms for control over the colleges, the others being representation of University nominees in Governing Bodies of colleges and representation of Principal Representatives from the four districts under the jurisdiction of the University in EC.

2.2.9.2 Monitoring by Faculty Councils for Post Graduate Studies

As regards PG Studies, the Faculty Councils (FC) for Post Graduate Studies were responsible for inspection or investigation of the affairs of any University Department or any college and submitting report to the EC. The FCs did not carry out any inspection of Departments. They also did not prepare any report for submission to the EC as mandated, during the period of audit.

In its reply, the University stated that academic aspect of the monitoring of PG departments under Faculty Council (Science) and Faculty Council (Arts) was looked at as a routine exercise by the Dean (Science) and Dean (Arts) respectively, while the administrative part was taken care of by the Secretary as part of statutory responsibility.

However, the posts of Deans were vacant from December 2012 till March 2014.

2.2.9.3 Monitoring by State Government

As per section 46 (1) of the Act, the State Government shall have the right to conduct inspection of the University/ any affiliated college or into the affairs of

the University or affiliated college and it may accordingly direct the University/ College to take appropriate action.

Audit noted that no such inspection was conducted by the State Government during 2009-14. Thus, though the Act empowered the State with power of oversight, it did not exercise the same to improve the functioning of the University. Considering that the University had issues regarding its Provident Fund maintenance, recruitment of staff, budgeting and expenditure of State Government grants, etc., absence of inspections by State Government becomes important.

Further, State Government was not fully cognizant of the state of affairs of the University as its representatives in the Court and the EC did not attend the meetings. ***(Appendix 2.2.1)***

2.2.9.4 Non-preparation of Annual Reports

As per the Act, EC is to prepare the Annual Report and submit the same to the Court. The Court is to consider the Annual Report and to pass such resolutions relating thereto as may be considered necessary. Apart from this, the University has no other system of reporting. It was, however, seen that the University had not prepared the Annual Report since 2007-08.

In reply, it was stated (May 2014) that the Annual Reports could not be prepared due to non-submission of requisite information by many departments and also due to man-power constraints. The University decided (August 2012) not to publish the Annual Reports for the period 2007-08 to 2009-10. The work for the publishing of Report for the year 2010-11 was in progress.

During Exit Conference (December 2014), it was informed that Annual reports had since been prepared for the years 2010-12 and the report for the year 2012-13 was under process. However, it was not stated whether these reports had been approved by Court and were published.

2.2.10 Conclusions

Overall functioning of the University was hindered in the absence of Perspective plan encompassing goals for teaching and learning, research and development and human resource planning.

There were several issues in respect of financial management. Budget was not prepared following due process and the University obtained excess grants from the State Government by inflating the staff strength. Though the University did not spend the State Government grants fully, UC was given for the full amounts resulting in surpluses. University maintained Provident Fund without conforming to crucial Government instructions such as creation of Pension fund, framing statutes for GPF, etc. The lax handling of financial affairs of the University was further evident from the fact that the Annual Statement of Accounts had not been prepared for the last 12 years and that internal audit had not been conducted annually as mandated in the Act.

The research activities of the University did not present an encouraging picture as research output was modest. The University also had deficiencies in the IT front as adequacy of IT infrastructure was not evaluated and policies for IT

security not formulated. There were also shortages of class rooms, laboratories, etc.

The University's initiatives in enhancing access, relevance and quality of education were sub-optimal. There was only a marginal increase in intake capacity of the University in PG studies despite increasing demand. University started only three new courses during last five years. It did not update its syllabi every three years as per the University Grants Commission stipulations. Since 2008, the syllabus was updated in 2014. Internal Quality Assurance Cell meant for planning, guiding and monitoring quality assurance and quality enhancement was not functioning as mandated.

The University had noticeable shortage of manpower especially in teaching, leading to adverse teacher-student ratio. The recruitment process required streamlining as there was no regular system of reporting of vacancies and there were instances of flouting of recruitment norms. University did not pay adequate attention to the capacity building of teaching staff.

Oversight was weak as the Inspector of Colleges, Faculty Councils for Post Graduate Studies and the State Government failed in discharging their mandated monitoring functions. Further, State Government was not fully cognizant of the state of affairs of the University as its representatives in the Court and the EC did not attend the meetings.

2.2.11 Recommendations

The following are for consideration

- ***The University may take initiatives to prepare a comprehensive long term plan to achieve its mandated goals.***
- ***Financial management requires streamlining by adopting realistic budgeting, continued internal auditing and reliable reporting through timely preparation of Annual Statement of Accounts.***
- ***Immediate steps need to be taken to create pension fund and to formulate GPF Statutes.***
- ***Adequate attention should be given to improve the access, relevance and quality of higher education to make it more effective. University needs to analyse the demand of courses and to increase access. It may introduce more relevant courses which will increase the employability of the students.***
- ***Manpower shortages require to be addressed by streamlining recruitment process through proper reporting of vacancies and ensuring due recruitment process.***
- ***Monitoring by the Inspector of colleges, Faculty Councils and the State Government needs to be geared up.***

PUBLIC HEALTH ENGINEERING DEPARTMENT

2.3 Implementation of National Rural Drinking Water Programme

Executive Summary

With vision and objectives aligned with those of National Rural Drinking Water Programme (NRDWP), Public Health Engineering Department (PHED), Government of West Bengal was responsible for implementation of drinking water supply schemes in rural areas.

Audit of the activities of the PHE Department on rural water supply covering a period 2009-14 threw light on various areas of inherent weaknesses in its system, process of planning as well as in actual execution of works. The major highlights of the report were as follows:

- Inhabitants of arsenic affected areas remained exposed to contaminated water due to inadequate intervention by the Department. Instances of tubewells being sunk in arsenic-contaminated aquifer were noticed as also the non-installation of Arsenic Treatment Units/ Arsenic Removal Plants.
- The department depended on decade old survey data for planning its activities. The veracity of the data reported for MIS was not vouchsafed, as neither was there any system in the department for verifying these data nor were the basic records in support of these data maintained in the divisions.
- Participative planning involving village community was not followed resulting in deficient planning process.
- Progress in execution of piped water supply schemes (PWSS) was very slow which was attributable to deficient drawing and designing, non-availability of power, appointment of inefficient contractors, deficient planning etc.
- Even for the PWSS commissioned, the actual water supply level was far less than the designed capacity for factors like non-formation of community groups, faulty execution of schemes, non-provisioning of house connections, etc.
- Water quality monitoring and surveillance activities were a matter of concern as there were deficiencies in water quality tests, shortfalls in collection of samples, infrastructure and other operational deficiencies of test laboratories, ineffective ground level surveillance on water quality etc.
- Meaningful involvement of the communities in maintaining and running water supply projects, as envisaged under NRDWP, could not be ensured in the absence of suitable by-laws under the State Panchayati Raj Act.
- Vigilance and Monitoring Committees at district and village levels were, not set up (August 2014) to monitor the progress and exercise vigilance on implementation of schemes.

2.3.1 Introduction

Public Health Engineering Department (PHED), Government of West Bengal was responsible for implementation of drinking water supply schemes in 98120

rural habitations which cover 7.01 crore population out of the total 9.13 crore population of the State. The vision and objectives of the department were aligned with those of National Rural Drinking Water Programme (NRDWP)[59], a Centrally Sponsored Programme, which *inter alia* include the following objectives:

- To ensure permanent drinking water security at the rate of 70 lpcd (litres per capita per day) in all rural habitations through emphasis on piped water supply schemes with regard to potability, reliability, sustainability, convenience, equity and consumers preference;
- To enable local communities including Panchayati Raj Institutions to monitor and manage their own drinking water sources;
- To provide access to information through online reporting mechanism to bring in transparency, accountability and informed decision making;

The position of total funds received under NRDWP from GoI and funds released by the State Government was shown in ***Appendix 2.3.1***.

2.3.2 Organisational set up

The Principal Secretary was in overall charge of the PHE Department, assisted by PHE Directorate, which undertakes programmes for implementation of water supply and sanitation services. The PHE Directorate was headed by Engineer-in-Chief, who was assisted by six Chief Engineers (CE), 23 Superintending Engineers (SE) and 78 Deputy Superintending Engineer/ Executive Engineers (EE).

For planning, implementation and monitoring of rural water supply projects, NRDWP guidelines mandate establishing an institutional mechanism consisting of various authorities/ agencies like

- State Water & Sanitation Mission (SWSM), State Level Scheme Sanctioning Committee (SLSSC), State Technical Agency (STA) and Water & Sanitation Support Organisation (WSSO) at the State level,
- District Water & Sanitation Mission (DWSM) at the District level and
- Village Water & Sanitation Committee (VWSC) at Gram Panchayat level

Responsibilities assigned to these authorities/ agencies in implementation of NRDWP are shown in ***Appendix 2.3.2***.

2.3.3 Audit objectives

The audit objectives were to assess whether efforts of PHED were adequate and effective to attain its objectives by examining the following:

- ❖ Whether there was adequate planning to provide sufficient coverage and availability of water at habitation level;
- ❖ Whether mechanism for vigilance on the water quality in areas with water quality problems was efficient and various mitigation activities were executed efficiently and effectively.

[59] *Known as Accelerated Rural Water Supply Programme (ARWSP) prior to April 2009*

- ❖ Whether the issue of sustainability of water sources was given adequate attention through Operation and Maintenance (O&M) of existing water supply schemes;
- ❖ Whether monitoring of activities was effective.

2.3.4 Audit criteria

Audit comments were based on the criteria sourced from

- ❖ Manuals published by Central Public Health Environmental Engineering Organisation(CPHEEO) on water supply and treatment (1999) and Operation and maintenance of water supply systems (2005);
- ❖ Guidelines for Implementation of National Rural Drinking Water Programme (NRDWP), 2010;
- ❖ Annual Action Plan and instructions issued by the PHED;
- ❖ Guidelines on Survey of Drinking Water Supply Status in Rural Habitations (February 2003);
- ❖ Guidelines for National Rural Drinking Water Quality Monitoring and Surveillance Programme (January 2006);
- ❖ Draft Project Report (DPR) and Project implementation Plan and works contract agreements for individual schemes;
- ❖ West Bengal Financial Rule, Vol. I and II and instructions of Finance department;
- ❖ Public Works Department Code/ Manual, BIS Codes and best practices;
- ❖ Minutes of the meetings of SLSSC, SWSM Arsenic Task Force, Committees for Shortlisting of Bidders and Tender Selection.

2.3.5 Audit scope, coverage and methodology

The performance audit was conducted during April to November 2014 covering the activities of the department for the period 2009-14 through test-check of records of the PHE Department/ Directorate, seven[60] Circles and 17 Divisions[61] of six[62] districts selected through stratified sampling on the basis of water quality. Records of DWSM, State Institute of Panchayat and Rural Development, West Bengal (SIPRD)[63], and water testing laboratories were also scrutinised. Physical verification (PV) of the implemented schemes at 164 habitations was conducted by audit jointly with departmental officials and Panchayat representatives. Feedback was also obtained from 608 end users/ Pradhans of 43 Gram Panchayats through questionnaire to assess the extent of services received including the quality of execution of works and operation/ maintenance of facilities. An Entry Conference was held on 26 March 2014

[60] *S.E. Eastern Circle, S.E. South 24 Parganas W/S Circle, S.E. Murshidabad Circle, S.E. Western Circle, S.E. Planning Circle I , S.E. Planning Circle II, S.E. North Bengal Circle I*

[61] *E.E. Nadia Division, E.E. Nadia Arsenic Division I, E.E. Nadia Arsenic Division II, E.E. Eastern Mechanical Division, E.E. Alipur Division, E.E. South 24 Parganas Water Supply Division I, E.E. South 24 Parganas Mechanical Division, E.E. Medinipur, E.E. Medinipur Mechanical Division, E.E. Bankura Division, E.E. Bankura Water Supply Division I, E.E. Bankura Mechanical Division, E.E. Murshidabad Division, E.E. Berhampore Division I, E.E. Berhampore Mechanical Division, E.E. Coochbehar Division and E.E. Northern Mechanical Division.*

[62] *Bankura, Nadia, Murshidabad, Paschim Medinipur, South 24 Parganas, Coochbehar.*

[63] *SIPRD at Kalyani, Nadia imparts training to the representatives and officials of rural functionaries (PRI, Government and Non Government Organisation) and keep them up to date with latest developments in Government policies, strategies and programmes.*

with the Principal Secretary of the department to explain the audit objectives, criteria, coverage, and methodology.

Responses of the department on audit observations were received in January 2015, which had been verified and incorporated in the report at relevant places. Exit Conference has not been held, though efforts were made for the same by audit.

Audit Findings

2.3.6 Planning and data support

2.3.6.1 Dependence on unverified data: Quality planning requires reliable information on existing facilities and the deficiencies, so that targets and milestones can be set. PHED did not maintain basic records in divisions regarding year-wise physical and financial targets, component-wise monthly financial and physical progress reports, population catered etc. during 2009-14. As per the guidelines, all reporting (*i.e.*, AAPs, physical and financial progress reports) must be done online. Though online data were being entered, there was no system of verifying the correctness of data, and all decisions including release of funds were based on such unverified data.

The department, in its reply, stated (January 2015) that the basic data sent by divisions were captured and published in a book at the department. However, during audit inspection, no such book or related records in support of the online data was made available.

2.3.6.2 Absence of survey data: Audit observed that though a survey has been conducted in 2013, the data was yet to be compiled as of August 2014. The department depended on data of previous survey conducted in 2003 in arsenic affected districts, while for other districts, data of Census 2001 was used. In view of deficient sustainability measures of water supply works as discussed later in the report, dependence on decade old data compromised the quality and efficacy of planning.

The department, in its reply, stated (January 2015) that data was collected from CGWB and State Water Investigation Directorate (SWID)[64]. The reply was, however, silent on the availability of reliable information on current habitations/ population coverage, deficiencies and status of water availability required for quality planning as pointed by audit. Moreover, neither CGWB nor SWID maintains data in respect of availability of water at the household level, which can be arrived at only through a survey.

2.3.6.3 Participative planning process not followed: The roles of authorities of various levels in the participative planning process involving the village level as envisaged in the NRDWP and deviations therefrom are indicated below:

Components of plan	Observations
Village level: Village Water and Sanitation Committee (VWSC) was to prepare Village Water Security Plans (VWSP) indicating	The Participative planning process involving village community was not followed as VWSC was not formed in

[64] *Under the Water Investigation & Development Department*

Components of plan	Observations
the demography, available drinking water infrastructure and gaps; proposed work to augment the existing infrastructure and water sources; etc.	any of the test-checked districts
District level: Based on VWSPs, District Water Security Plans (DWSP) were to be prepared at the District Level	DWSM was also not involved in planning.
State level: DWSPs should form the basis of Annual Comprehensive Water Security Action Plans/ Annual Action Plans (CWSAP/ AAP). It should consider, new/ augmentation schemes with priority to completion of on-going schemes. Each water supply scheme was required to incorporate source strengthening conservation measures, rain water harvesting and ground water recharge system for source sustainability in consultation with PRIs. CWSAP was to be submitted to Department of Drinking Water and Sanitation (DDWS), Government of India by February every year through online Integrated Management Information System (IMIS).	Annual Action Plans (AAPs) were prepared at the Directorate Level for taking feedback from divisions. While preparing DPRs of a scheme, the department did not incorporate provision for source strengthening and conservation measures, rain water harvesting and ground water recharge system for source sustainability in consultation with PRIs. Against submission of AAP in February to the DDWS, the department prepared AAPs as late as of April-July after a delay of two to five months. This had resulted in non-utilisation of full year of work and accumulation of idle fund.
General: The State Government was also required to prepare a strategic plan for covering all households with piped drinking water supply within the household premises. Before taking up piped water supply projects in a village, Information Education & Communication (IEC) and Human Resource Development (HRD) activities were required at such villages to create awareness among rural people on all aspects of rural water supply and its related issues and to enhance the capacity of the Panchayati Raj Institutions/ Local Bodies/ VWSC to enable them to take up planning, implementation and operation and maintenance activities related to rural water supply systems.	The department had a long term Plan *viz.* Vision Plan 2020 prepared in August 2011 targeting to cover 100 *per cent* population through different sources aiming to provide 70 lpcd water. However, as it did not indicate any interim milestones/ year wise physical and financial targets, the extent of materialisation of the plan could not be assessed. IEC and HRD activities were not taken up effectively

Besides the above, the department did not prepare long term plan for sustainability measures encompassing village level participation in respect of

existing water supply schemes/ sources (as discussed in detail in *paragraph 2.3.10*).

It was seen that under sustainability measures the department could complete only 31 *per cent* of planned structures during 2009-14. Due to non-inclusion of large scale sustainability measures in Annual Action Plan, the department failed to avail ₹ 955.21 crore of NRDWP funds meant for sustainability measures.

The department, in its reply, stated (January 2015) that the process of formation of VWSC had already started, while DWSMs had been involved in the planning process. However, no record of functionality of VWSC and DWSM or their involvement in planning was furnished to audit. Moreover, the department attributed shortfall in achievement *vis-à-vis* targets of AAP, to local issues. This underlines the importance of involving local communities in the planning process.

The department further stated that AAPs were part of Vision-2020, a long-term plan, as year-wise milestone. But it did not contain even the tentative year wise physical targets to cover 100 *per cent* population by 2020.

As regards source sustainability, it was stated that sustainability measures were not included in DPR but taken up separately. The reply was not acceptable as NRDWP guideline stipulated source-strengthening conservation measures, rain water harvesting and ground water recharge systems for source sustainability for each water supply scheme.

2.3.7 Coverage of habitations

According to NRDWP, a habitation was declared as "Fully covered" (FC) if people residing in that habitation have access to 40 lpcd[65] water within a distance of 500 meters from the household or 30 minutes of time taken for fetching water.

As per data hosted in the website of the MDWS for March 2014, out of total 98120 habitations in West Bengal, 45419 (46 *per cent*) were FC habitations covering 46 *per cent* of rural population in the State for adequate drinking water. As regards the mode of provision of water (September 2014), 35260 habitations in West Bengal were covered by Piped Water Supply Schemes (PWSS), 58254 by hand pumps/ bore wells, 864 habitations had other arrangements while information on 3742 habitations was not available.

2.3.7.1 Prioritisation in coverage

Guidelines of NRDWP stipulated that higher priority should be given to coverage of zero *per cent* population covered and 0-25 *per cent* population covered habitations in planning. As on April 1, 2014, out of the total 98120 habitations, only 45419 were FC habitations, while coverage in 19343 habitations was less than 25 *per cent* (including quality affected habitations where coverage was taken as zero). **Table 2.3.1** shows the extent of achievement.

[65] *In areas having acute water quality problems and where the cost of alternate safe drinking water will entail huge capital cost, 10 lpcd of potable water may be supplied and the balance domestic requirement can be met from other nearby source(s).*

Table 2.3.1: Habitation-wise extent of population coverage

Year	Segregation of habitations covered during 2009-14 in terms of population coverage					
	Habitations with coverage less than 25% of population or with water quality problems		Habitations with 25 to 75 per cent coverage		Habitations with more than 75 per cent coverage	
	Target	Achievement	Target	Achievement	Target	Achievement
2009-10	194	376 (194%)	2043	1573 (77%)	1883	2857 (152%)
2010-11	1439	1318 (92%)	1986	1641 (83%)	3205	3008 (94%)
2011-12	1314	1570 (119%)	141	141 (100%)	4641	2909 (63%)
2012-13	1681	841 (50%)	71	87 (123%)	2400	3308 (138%)
2013-14	852	726 (85%)	490	420 (86%)	1879	1973 (105%)
Total	**5480**	**4831 (88%)**	**4731**	**3832 (82%)**	**14008**	**14055 (100%)**

Source: IMIS data

Not Fully covered (NFC) habitations not given due priority: From the table, it can be seen that during 2009-14, only 5480 habitations were targeted from the priority range, whereas 18739 non-priority habitations were targeted where the achievement percentage was also higher. The rationale behind such planning was not on record.

The department was silent on prioritisation of habitations in its reply (January 2015), but stated that all villages in the State have at least one safe source / spot source. However the reply was silent on the adequacy of the source.

2.3.7.2 Deficient service through PWSS

Immediately after commissioning of a scheme, the department report the population under the command area of the scheme as covered as per the designed capacity. It did not have any system to physically verify through field inspections whether the beneficiaries were actually getting the quantity of water as envisaged in the DPR.

As of April 2009 there were 1303 completed and 120 partially completed PWSS, of which 351 were more than 20 years old. However, design level supply *vis-à-vis* actual supply in respect of 125 Ground water based schemes and three surface water based schemes commissioned during 2009-14 in Nadia, Murshidabad, Paschim Medinipur and South 24 Parganas revealed that the actual supply was far less than the design level supply as shown in **Table 2.3.2**:

Table 2.3.2: Design level supply *vis-a-vis* actual supply in test-checked districts

Scheme	Design level supply	Actual supply	Capacity utilisation
	Lpcd level	Lpcd level	
125 Ground water based scheme	61 Lpcd	10 Lpcd	16 *per cent*
Three surface water based scheme	49 Lpcd	17 Lpcd	35 *per cent*

Source: Records of test-checked divisions

Thus, merely 16 to 35 *per cent* of design level capacity of the water supply schemes was utilised. Factors behind such low utilisation include non-provisioning of house connections, non-formation of community groups, faulty execution of schemes, etc. as discussed in the subsequent paragraphs.

2.3.7.3 House connection not provided

Test-check of sanctioned scheme, contract agreements and physical progress reports of 125 ground water based PWSS and three Surface water based PWSS

commissioned during 2009-14 in Nadia, Murshidabad, Paschim Medinipur and South 24 Parganas revealed that 2.06 lakh households were to be supplied with water at their premises to serve 10.30 lakh people

Records, however, showed that no house connection was given to these households. During field survey conducted by audit, 95 *per cent* people stated that they were eager to take house connection and were ready to bear the expenses for the service and five *per cent* expressed unwillingness due to their financial constraints.

Thus, house connection could not be provided inspite of demand among the beneficiaries. This may be viewed with the absence of the institutional delivery mechanism through formation of VWSCs, as envisaged under NRDWP guidelines as discussed later in the report (*vide para 2.3.11.2*).

The department, in its reply, accepted (January 2015) audit observation.

2.3.7.4 Slow pace of execution of Piped Water Supply Schemes (PWSS)

Department executed piped water supply schemes (PWSS) through its divisions, while it delegated the responsibility of execution of spot sources (hand pump/ wells) to Zilla Parishads. The performance of the department during the period 2010-11 to 2013-14 in terms of number of schemes taken up and executed in the State was shown in **Table 2.3.3** (schemes completed up to February 2014 had been included).

Table 2.3.3: Progress of PWSS in the State

Year	Opening balance of incomplete schemes	New schemes	Target	Achievement (percentage in brackets)	Balance of incomplete schemes
2010-11	595	126	721	200 (28)	521
2011-12	521	128	649	43 (7)	606
2012-13	606	24	630	76 (12)	554
2013-14	554	150	704	133 (19) *	571
Total		**428**	**1023**	**452 (44)**	

Source: Annual Action Plans (AAPs) ** figures up to February 2014*

Slow progress of PWSS: It may be seen that the Annual Action Plan was prepared from 2010-11 onwards starting with 595 incomplete PWSS as on March 2010, 428 new schemes were taken up during 2010-14. Out of 1023 schemes targeted for execution during 2010-14, only 44 *per cent* could be completed. Even the unfinished works (595 works as of April 2010) could not be completed as of February 2014.

As per guidelines, the unfinished schemes were to be completed before taking up new schemes. Separate data was not maintained for completion of old/ unfinished schemes. It was observed that 2276 unfinished schemes were included in the targets.

Progress of PWSS in arsenic affected districts: PWSS were targeted for completion within a period of one to three years. It was observed that in four arsenic affected districts[66] 307 schemes sanctioned between 2005-06 and 2010-11 were incomplete as of March 2014. Of these 307 delayed schemes, 68

[66] *Malda, Murshidabad, Nadia and North 24 Parganas*

schemes were delayed by three to five years, while 239 schemes remained incomplete by more than five years.

Department attributed (January 2015) the non-completion of scheme on time mainly to factors like non-availability of land and right of way[67]. It was, however, stated that all-out efforts had been initiated to complete the delayed scheme within this financial year and meanwhile short term measures like providing ATU with hand pump, sinking of spot sources in deeper aquifer etc. had been taken up to provide safe water.

In this respect audit observed the following

2.3.7.5 Factors affecting progress of execution

Work orders issued before possession of encumbrance free land

Though availability of encumbrance free site was to be ensured before commencement of the work, test-check of records revealed that 130 Schemes in Nadia and Murshidabad could either not be taken up or had to be suspended midway due to non-availability of clear site in possession of the department or non-payment of land price to the land owners.

Delay in commissioning due to non- availability of power

As of February 2014, works at 478 completed schemes in the State could not be commissioned due to non-availability of power. The department neither pursued the applications for power connections nor claimed compensation from WBSEDCL as per WBERC Regulation.

Deficient drawing & designing and execution of scheme affecting coverage of population and availability of water

In Nadia, the department placed (March 2007) a turn-key work order at a lump sum contract price of ₹ 246.16 crore for execution of 69.65 million litres per day (mld)[68] capacity surface water based PWSS for completion by March 2009. The provision of award included six months trial run and Operation & Maintenance for five years. The scheme was completed in March 2011 with an expenditure of ₹ 222.32 crore booked till May 2014.

- Scrutiny of the tender documents *vis-à-vis* approved drawing of command area revealed that 26 habitations defined in tender document were not included in the drawing approved by the department. Consequently, almost 0.60 lakh beneficiaries were excluded from the scheme depriving them of safe water.
- Further, comparison of the approved drawing and the "as built" drawing[69], indicated that the agency did not cover the entire distribution network, as 123 nodes covering 33025 metre included in the approved drawing was not executed. This also deprived the beneficiaries of safe drinking water.

The department in its reply (January 2015) noted the observations for verification and further course of action. It was further stated that final payment had not been done.

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[67] *Right of access to the site of work*

[68] *The total designed capacity of the scheme of consisted of three parts viz. (i) Kaliaganj (25.68 MLD), (ii) Nakashipara (30.08 MLD) and (iii) Krishnanagar (Debagram) (13.89 MLD).*

[69] *Drawing of the executed project*

Work remaining unproductive due to non-obtaining of permissions from NHAI and Railways:

Under Raghunathganj Water Supply Scheme in Murshidabad, the work (at an offered price of ₹ 52.30 crore) was awarded to a contractor in October 2007 with the target date of completion by September 2009. Scrutiny showed that the work was to be executed across the NH 34 and the adjacent railway line, prior way leave permission was required to be obtained from the National Highway Authority of India (NHAI) and Indian Railways. The same was, however, not done. As a result, out of completed distribution line in six zones of length 258.649 km, a distance of 47.03 km could not be utilised till date (July 2014). It was observed that the department moved NHAI only in July 2013 *i.e.* after lapse of more than five years from the date of issue of work order. Further, the work of inter-connection to an existing water supply scheme (Mirjapur Water supply scheme) was not taken up at all. This resulted in depriving 0.50 lakh[70] population of 13 habitations of the command area of the benefits of safe drinking water.

The department stated (January 2015) that though NHAI had been approached for way leave permission. NHAI itself had not finalised its four-lane alignment of the road. The reply of the department was not acceptable as work order was issued without obtaining statutory clearance from the authorities

Appointment of ineligible contractor with unsatisfactory past performance:

Superintending Engineer, Eastern Circle (S.E., E.C.) was responsible for inviting applications and processing data of prospective agencies for execution of 380 ground based PWSS in arsenic affected areas. As per terms and conditions for participation in the tender (May 2007) for these schemes, agencies already involved in two ongoing schemes under the department were to be debarred from participating in the tender. This has made one particular agency ineligible as it was already executing eight schemes of the department and had unsatisfactory record in the past, not having completed any of those eight schemes assigned to it earlier. In view of adverse reports received from different divisions, the high level committee for short listing of agencies recommended in July 2007 exclusion of the said agency from the tendering process. The Chief Engineer (H.Q.) also directed (August 2007) S.E., E.C. not to obtain rates from the agency. However, ignoring these, the S.E., E.C. allowed the agency to participate in the tender and the department awarded (May 2008 to February 2009) the agency three contracts for 25 schemes worth ₹ 58.24 crore. Although the works under Arsenic Sub-Mission were to be completed within 12 to 18 months, none of the works awarded to the agency were completed even after a lapse of more than five years (August 2014).

The contention of the department that delays were not within the control of the agency was not backed by any documentary evidences as it did not maintain any hindrance register meant for recording the time lost with reasons and did not ask for explanation from the agency for slippage of work schedule. Moreover, the Committee for Short Listing of Agencies, in view of

[70] *The present population figure had been arrived by considering growth rate of two percent of census 2001.*

unsatisfactory performance report from different divisions on the agency, had recommended exclusion of the said agency from the tendering process.

2.3.8 Mitigation efforts in water quality affected areas

2.3.8.1 Arsenic Sub-mission Programme:

A Master Plan drawn up (May 2006) by the State Government envisaged coverage of all the arsenic affected villages by piped water supply schemes and all Ground Water Based Piped Water Supply Schemes to be provided with Arsenic Removal Plant (ARP) unless a safe aquifer was available.

Central Ground Water Board (CGWB) reported existence of three aquifers[71] below ground level (BGL) in the arsenic affected areas and that the top aquifer within 80 m BGL generally contained arsenic beyond permissible limit whereas both deeper aquifers, which were separated by a thick layer of clay from the overlying aquifers, were arsenic free. The Board suggested that in case of Murshidabad and Nadia, aquifer deeper than 200 m BGL should to be explored for drinking water purposes.

The target *vis-a-vis* various short term, medium term and long term measures adopted upto March 2014 under the Master Plan were given in ***Appendix 2.3.3.*** Shortcomings noticed in Arsenic mitigation activities were as under:

Coverage: Out of 130.64 lakh population targeted for coverage during 2009-14, only 19 *per cent* of the population was covered. As of March 2014, 307 schemes in Nadia, Murshidabad, North 24 Parganas and Malda remained incomplete up to eight years beyond their schedule of completion time depriving 97.12 lakh population from safe drinking water. Even the population under already covered areas had to depend on contaminated water due to low level of supply (*as already discussed in para 2.3.7.2*).

Accepting the audit observation, the department stated (January 2015) that population envisaged in Master Plan had been taken for coverage under Sub-Mission Schemes; there might had been few pockets left out which could not be covered due to technical reasons. The department, however, added that steps had been initiated to cover the left out portion.

Tube wells sunk in the arsenic contaminated aquifer: As per IMIS data (March 2014), test report of 4999 hand-tubewells in Nadia (3191) and Murshidabad (1808) showed arsenic content beyond the permissible limit of 0.05 mg/l. On scrutiny, it was observed that in Murshidabad, hand-tubewells were sunk in the first layer of aquifer with an average depth of 65 metres instead of at the recommended level of 200 metres. As a result, 4.52 lakh[72] population had been consuming arsenic contaminated water in these areas as seen from test reports conducted by the department or its authorised agencies. The contamination level was as high as 2.41 mg per litre as against the norm of 0.05 mg per litre.

Tubewells sunk at insufficient depth: The Detailed Project reports (DPRs) prepared by the department for the Ground Water based PWS schemes in Nadia

[71] *first being within the depth upto 80 m bgl, second being between 100 and 160 m bgl and the third being between 200 and 250 m bgl*

[72] *Considering 250 people per spot source as per test report of spot sources hoisted at IMIS.*

and Murshidabad provided for sinking of big diameter tubewells beyond 200 metre below ground level (BGL) upto a depth of 300 metre BGL. The relevant contracts for sinking tubewells also stipulated the same.

Scrutiny of log charts of 535 big dia tube wells under 191 schemes in Murshidabad and Nadia revealed that the tube wells were sunk at depths ranging from 28.35 metre to 180.40 metre BGL violating the stipulation on depth as shown in **Table 2.3.4**

Table 2.3.4: Insufficient depths of big diameter tubewells in two arsenic affected districts

District	Number of tubewells with depth range				
	Up to 50 meters BGL	51 to 100 meters BGL	101 to 150 meters BGL	151 to 199 meters BGL	Data not available
Murshidabad	62	184	14	2	Nil
Nadia	Nil	6	167	96	4
Total	**62**	**190**	**181**	**98**	**4**

Source: Records of divisions

The water test reports of 535 such tube wells showed that in 157 tube wells, there was existence of Arsenic beyond the permissible level of 0.05 mg/l (up to 0.91 mg/l in Nadia and up to 0.8 mg/l in Murshidabad) affecting a population of 15.11 lakh out of 31.01 lakh. There was no monitoring by the authorities to ensure that the works were actually executed as sanctioned by them.

In reply, the department stated (January 2015) that the recommendation of CGWB was a general recommendation, which did not hold good in all places / district. Department added that in most of areas the clay barrier was absent in between sandy aquifer making all these aquifers susceptible to Arsenic contamination due to vertical leaching. Department further replied that tube wells of same depth in various places yielded water in varying level of Arsenic contamination, while at some places it was within limit.

The reply of the department was not acceptable as DPRs of the schemes, sanctioned by SLSSC on the recommendation of Scientific Source Finding Committee with the members of CGWB and SWID, stipulated tapping deeper aquifer upto 300 metres. The tubewells were sunk at lesser depth without concurrence of Planning wing or Scientific Source Finding Committee. Moreover, test report of PHED showed that the water extracted from upper aquifer contained arsenic beyond permissible limit.

The department pointed out that almost all habitations were having some safe sources, which was, however, irrelevant in the context of sinking of tubewells at insufficient depths.

Under-recovery against short-execution: Though the contractors had sunk tubewells with depths less than that stipulated in DPRs/ contracts, the department released payment without sufficient recovery against such short execution. Scrutiny of 11 lump-sum contracts of Ground Water based tubewells

under Arsenic Sub-Mission programme in Nadia and Murshidabad disclosed that the contractors were allowed undue financial benefits of ₹ 15.75 crore[73].

The department stated (January 2015) that while sinking the tube wells, boring had to be done upto stipulated depth mentioned in the tender documents; however, lowering of tubewell assembly was restricted to suitable aquifer. The department further added that as boring was done up to stipulated depth, recovery rate for less execution was less than the scheduled rate.

The department had not invoked clause 3 of special terms and conditions of the contract read with clause 8 of WBF no. 2912 of West Bengal Financial Rules which had specified that in case of short/ excess execution, recovery/ additional payment was to be made at pro-rata basis for the length short/ excess executed.

Arsenic Treatment Units (ATUs): PHED reported to have covered 5.99 lakh beneficiaries through installation of 2396 ATUs in the existing contaminated hand pump-fitted tubewells in five districts[74] upto March 2005. Test-check revealed that none of the 1131 ATUs installed in Murshidabad was covered under operation & maintenance contract during 2009-14. In the absence of O&M, all the ATUs were non-functional. As a result, 2.83 lakh population (considering 250 people for one ATU fitted tubewell) were supplied with arsenic contaminated water. In the absence of records in respect of remaining 1265 ATUs, the effectiveness could not be ascertained by audit. The department did not review the performance of these ATUs either.

Department stated (January 2015) that as per Government policy, Arsenic Treatment Units (ATU) were to be installed and thereafter be handed over to beneficiary committee who were supposed to maintain those ATUs by collecting funds from beneficiaries. Department attributed non-functioning of ATUs to lack of response on the part of the beneficiary committees.

Non-installation of Arsenic Removal Plants (ARP): Due to delay in technology upgradation in respect of installation of ARPs in 503 big-diameter tubewells taken up in July 2011, 52.45 lakh population in four districts[75] was affected. The new ARPs were not installed till July 2014.

The department accepted the fact and stated that the earlier model of ARPs required good quantum of land which was not available in various schemes. So, this model had to be modified which resulted in delay. The reply is silent as to the time-frame of installation of ARPs.

Satisfaction level of end users on supply of water: During field survey by collecting feedback from end users (608) for assessing their satisfaction level on the water supplied, it was observed that only 33 *per cent* of household reported to have received safe, sufficient and round the year supply of water. Reasons for dissatisfaction on the quality of water as expressed by the remaining 67 *per cent* of the beneficiaries included supply of dirty water (33 *per cent*), muddy water (24 *per cent*), water with odour (10 *per cent*) and

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[73] *As per schedule of work of 436 tubewells (180 in Murshidabad and 256 in Nadia) the average estimated cost was ₹1946 to ₹2249 per metre for well pipe (ERW pipe) and sinking. The department, however, accepted recovery rate of only ₹70 to ₹110 per metre for short execution of depth in 10 contracts, while no recovery rate was mentioned at all in the remaining contract.*

[74] *Malda-191, Murshidabad-1131, Nadia-272, North 24 Parganas- 702 and South 24 Parganas-100*

[75] *Murshidabad, Nadia, Malda and North 24 Parganas*

water of reddish colour (16 *per cent*). Thus, quality of water supplied by the government schemes remained to be a major issue.

2.3.8.2 Water Quality Monitoring and Surveillance

Bureau of Indian Standard (BIS) stipulated that water with contaminants beyond the maximum permissible limits[76] was not considered safe for drinking. Under the National Rural Drinking Water Quality Monitoring & Surveillance Programme (NRDWQM&SP), *Jal Surakshak*, a VWSC member was to collect data on adequacy of safe drinking water of household level, identify the sources, test them by Field Testing Kits (FTK), collect test samples for laboratory tests and carry out awareness activities on water related issues. All drinking water sources were to be tested at least twice a year for bacteriological contamination and once a year for chemical contamination. Monitoring was to be done through quarterly/ half yearly field inspections by officers from the District/ State level for effective implementation of the programme.

Shortfall in water quality tests: During five years ending March 2014, the department conducted only 7.69 lakh chemical (21 *per cent*) and 7.79 lakh bacteriological (11 *per cent*) tests against the required 36.21 lakh and 72.42 lakh tests respectively through 116 departmental/ NGO run laboratories. Of these samples, 4.55 lakh (59 *per cent*) samples were reported to be contaminated (Arsenic: 46244, Fluoride: 3376, Iron: 22843, TDS: 2785, TC: 111420 and FC: 68460). But there was no action taken to correct this.

Deficiencies in collection of samples and testing exercise: As per the guidelines, VWSC members and ASHA workers were to conduct house-to-house inspections for checking the quality of drinking water by collecting samples and testing these samples at sub-divisional laboratories and PHCs. Though VWSCs were not formed, *Jal Surakshaks* were engaged, who collected water samples from various sources.

- There were no records to show that water samples at public taps and households were actually tested at PHC.
- Even when contamination was detected, there was no record to indicate that the corrective measures were actually taken by PHED in co-ordination with P&RD and confirmation of contamination-free water was made available to the beneficiaries.
- In 90 piped water supply schemes of Murshidabad district, water samples from none of the stand posts were tested for chemical and bacteriological parameters during 2013-14.
- Hoardings showing water quality information of the village as required under the guideline were not found at any of the test-checked Gram Panchayat office/ at source.
- As per the guideline one Field Testing Kits (FTK) per G.P. was to be provided for testing 100 samples. In Bankura, no FTK was distributed and in Murshidabad against the requirement of 3466 FTKs, only 26 FTKs were

[76] *Iron (1.00 mg/l), Arsenic (0.05 mg/l), Fluoride (1.5 mg/l) and total Maximum Probable Number (MPN) of coliform (TC) (10 col/100ml) and faecal coliform (FC) (nil/100ml)*

distributed in February 2013, which were put to use only in March 2014 just before the dates of their expiry.

- Against a target of 21.81 lakh sources, the department did not conduct any test through FTK during the period 2009-10 to 2011-12. In 2012-13 against a target of covering 21.81 lakh sources, it conducted only 4156 (0.19 *per cent*) tests and in 2013-14 only 14468 (0.66 *per cent*) tests through FTK. Thus, there was huge shortfall in test through FTK.
- Users' experience on quality monitoring effort: To the question whether water was tested from sources, only eight per cent of the respondents in 608 surveyed households confirmed that water samples were drawn from sources (taps/ tubewells) for testing, while 62 per cent reported in the negative and 30 per cent expressed their ignorance of testing.

Infrastructure and other operational deficiencies of laboratories: Physical inspection of testing laboratories as well as records of test-checked districts revealed the following:

- Equipment at the test laboratories were not calibrated although it was mandatory as per guidelines of National Accreditation Board for Testing and Calibration Laboratories (NABL). Thus, there was no assurance of accuracy of the test results.
- During inspection of Murshidabad District lab, it was noticed that it was not equipped for carrying out bacteriological tests.
- During physical verification of 24 schemes in Bankura, Murshidabad and Medinipur, it was found that all the installed chlorinators were non-functional.
- No pre and post monsoon tests were conducted by the District Labs during 2009-10 to 2013-14, as required under the guidelines. Though pre-monsoon tests were taken up only in 2014-15 risks of bacteriological contamination of water during monsoon were not assessed.
- In Murshidabad district laboratory, necessary equipment[77] for various chemical tests in laboratory remained idle during 2009-14 due to shortage of space. Arsenic Fume Chamber remained non-functional during the entire period covered under audit.
- Laminar Air Flow Chamber was not supplied in Murshidabad District Laboratory during 2009-14 for which bacteriological tests could not be conducted at the laboratory.
- Mandatory repeat tests on 10 *per cent* of water samples found as contaminated at sub-divisional laboratories were not done at District laboratories. Similarly, mandatory repeat tests of 10 *per cent* of samples tested at the district laboratories by the State Laboratory at Dongaria were also not conducted. As per the norms, chlorination should be done at pump house to ensure residual chlorine of 0.02 at the end point to restrict the coliform content in samples below 10 coliform organism per 100 ml. Water samples of 31 PWSS tested at District Lab, Bankura, had residual chlorine

[77] *Autoclave (used for sterilisation of liquid, glass and bio-hazardous equipment), Incubator (used for the growth and storage of bacterial cultures) and Hot Air Oven*

between the range (0 to 0.1) and T.C. ranged between 11 to 47 per 100 ml indicating water supplied with inadequate chlorination or leakage in pipe line, constraining the end user to consume bacteriologically contaminated water. No corrective measures were, however, taken.

2.3.9 Operation & Maintenance

As per the CPHEEO manual of the Ministry of Drinking Water Supply & Sanitation, Government of India, to ensure sustainable supply of safe drinking water in adequate quantities, there should be a plan for operation and maintenance including GIS based maps of the distribution system, provision for engagement of well-trained operating and maintenance staff supervised on regular basis, timely availability of tools and consumables, adoption of energy saving machines, water audit and leakage control measures. It must have an operation and maintenance manual specifying the duties and responsibilities of operating and supervising staff for daily operations and maintenance of the components of the plants, machineries and facilities and the distribution system at regular intervals. The department incurred an expenditure of ₹ 905.36 crore on O&M during the period 2009-14. Deficiencies in operation and maintenance and expenditure thereon were discussed below.

2.3.9.1 Issues relating to O&M

Absence of field data:The department neither had GIS based maps of the raw/ clear water rising mains/ distribution system nor prepared any operation and maintenance manual specifying unit wise machines/ facilities, job description of operation and maintenance and person responsible for it, ways and means to tackle emergency etc. There was no system for recording the history of equipment, cost thereof, life etc. based on real time field information or a reporting system indicating the status of machines/ equipment. Neither was there any system in place for checking the different installations/ pump houses to oversee the status of functioning and maintenance thereof by the O&M staff. No preventive maintenance existed in the field.

Non-fixation of Performance standard: The department neither fixed any Performance Standard for different components of the scheme to evaluate actual performance of the O&M nor evaluated the performance of O&M contractor to verify adequacy of services rendered in terms of competent manpower, infrastructure, material, testing and repairing facilities, financial soundness and capacity to meet emergency situations required as per CPHEEO Manual for O&M.

Absence of control of wastage: There was no system of water audit and leakage control measures in practice. During field inspection it was noticed that the flow meters before and after the overhead reservoirs either did not exist or were non-functional and all the public taps were without stop cock. There were also some unauthorised connections.

Lack of essential equipment and records in pump houses inspected: Field visits conducted by audit at 34 pump house revealed that one remained suspended due to damage of pipeline. Of the remaining 33 pump houses, it was noticed that in 24 pump houses the chlorinators were non-functional and in 22 pump houses, records for visit of electrical supervisors were not maintained. In

none of the 34 pump houses, were records found relating to stock of chlorine, register of pipeline/ other installation, complaint register for discontinuation of water supply, board indicating toll free number, stock of spare parts, maintenance registers etc.

2.3.9.2 Lack of co-ordination leading to non-repair of pipe line

During 2007-08 to 2013-14, village roads within the command area of water supply schemes of PHED in five test-checked districts were taken up for development/ widening by SRDA under PMGSY/ State PWD. During construction, 363.14 km of pipelines were damaged by the executing agencies that led to the stoppage of water supply to 3.83 lakh people in the affected area till August 2014 for various periods starting from August 2007 as detailed in ***Appendix 2.3.4***.

Though the district committees had members from all the departments including PHED, no plan for shifting its pipe lines necessitated by road works under PMGSY and other schemes was chalked out. In Medinipur, despite having been informed (January 2006) about the ensuing road development work, the department took 20 months to prepare estimate for shifting of water supply line under Madpur Water Supply Scheme.

Thus, due to lack of co-ordination between P&RD and PHED, population of 3.83 lakh were deprived of piped drinking water for long periods.

2.3.10 Sustainability

As per the guidelines, to ensure water security at individual household levels, the water supply system was required to be made sustainable by conservation and storage of water through an integrated approach by revival of traditional systems, conjunctive use of surface and ground water, storage of rain water harvesting at community/ household level. Under this component village water security plan was mandatory.

Although ₹ 1165.26 crore[78] of NRDWP funds were allocated as 100 *per cent* Central assistance for sustainability measures during 2009-14, the department planned to implement 1225 sustainability structures at an estimated cost of ₹ 210.05 crore. Against the same, 377 structures in the form of check dams (five), roof top rain water harvesting (19), conversion of defunct bore well (121), dug well injection (122), village ponds/ water bodies (21), rejuvenation of existing sources (89) were created at a cost of ₹ 85.64 crore. Thus, only 18 *per cent* of the available funds were planned for utilisation, and only seven *per cent* were utilised. No reasons were on record for such low utilisation.

In this respect the following were noticed that

- ***Long term plan encompassing village level participation not done:*** The department did not assess the long term sustainability measures required through detailed survey and plan in co-ordination with CGWB, Pollution Control Board and P&RD department. Village Water and Sanitation Committee (VWSC) to prepare Village Water Security Plans (VWSP) indicating the demography, available drinking water infrastructure and

[78] *20 per cent of total allocation of ₹ 31 crore*

gaps; proposed work to augment the existing infrastructure and water sources; etc. Neither were these mandatory village level plans for sustainability component prepared in the absence of VWSCs, nor was the participative planning process adopted by the department (as already discussed in *para 2.3.6.3*). Assessment of water demand and budgeting at household level was also not done. Suggestion of CGWB for adequate sustainability measures in critical and semi-critical blocks were not considered in the Annual Action Plan either.

- ***Energy efficiency measures not adopted:*** PHED uses pumps and motors of different capacities in its water supply schemes. It was observed in audit that PHED neither considered the factor of energy conservation while selecting pumps and motors, nor did it have a system of recording, analysing and reporting the electricity consumption pattern *vis-a-vis* efficiency of pumps and motors in operation with reference to recommendations of Bureau of Energy Efficiency (BEE).

  Test-check of electricity consumption ratings of 82 submersible pump-motor sets procured for ground water based schemes of Nadia, Murshidabad and Coochbehar districts procured during 2009-14 revealed that average electricity consumption of these sets was 10.24 KWH. However, applying the actual consumption level of BEE recommended pump-motor (used by PHED elsewhere in the State), the average consumption worked out to only 7.87 KWH for working with the same power and discharge of water. Thus, non-procurement of BEE rated energy efficient pumps led to additional electricity consumption, which was estimated to be 170.56 lakh KWH during the design period.

2.3.11 Involvement of local communities

As per guidelines of NRDWP, State government was to set up and regulate the composition and functions of VWSC as a standing committee in each GP for planning, monitoring, implementation, operation and maintenance of Water Supply Scheme and to ensure active participation of the villagers.

2.3.11.1 Involvement of community in the planning process

The participative planning process involving the village level as envisaged in the NRDWP and deviations were not followed as already discussed in *para 2.3.6.3*.

2.3.11.2 Absence of essential delivery mechanism

All water supply schemes within the GP were to be maintained by the GP while in case of multi – village or bulk water supply schemes, GP was required to maintain the distribution and other components within the village. In this respect the following was noticed:

- Though the government formally constituted (November 2009) the State level, district level and village level committees[79] under NRDWP with subsequent modification (January 2012), no records in support of formation of VWSC or operationalisation of DWSM could be shown to audit in five test-checked districts.

[79] *Apex Committee: 13 members, Executive Committee: 14 members, DWSC, VWSC under SWSM.*

- Neither were any by-laws under the State Panchayat Raj Act framed to regulate the composition and functions of VWSC's, nor any measure taken to ensure transfer of assets to and management thereof by PRIs, vesting responsibility of O&M on them and empowering PRIs to charge for the services provided.
- No support/ hand holding activities in technical, administrative and accounting matters were provided to PRIs/ Community members to shoulder the responsibilities of management of water supply schemes.
- No activity mapping was made within a time frame by the department to gradually transfer the funds, functions and functionaries to the PRIs.
- Eighty nine *per cent* of 608 end users covered under field survey reported that Gram Panchayat did not take any step to ensure the quality of water, while five per cent reported in the affirmative and six per cent expressed their ignorance.

Impact of inadequate involvement of communities would also be evidenced from the reply of the department, in which non-functioning of arsenic treatment units was attributed to the lack of response on the part of the beneficiary committees (*vide paragraph 2.3.8.1*).

2.3.11.3 IEC and HRD activities

During the period 2009-14, the department incurred ₹ 6.92 crore for implementation of IEC activities. The department, against a target of 1.97 lakh activities, reported to have taken up 2.09 lakh activities in the form of wall paintings, hoardings, template, posters, banners, flex, kiosk in bus stand and railway station, leaflet etc. In this connection audit observed the following:

- As per NRDWP guidelines, the fund available for IEC were to be made available to state level (10 *per cent*), District level (20 *per cent*), Block level (10 *per cent*) and Village level (60 *per cent*). But the department did not release any fund to Block and Village level and no meetings at villages/ communities were held to motivate and involve village/ community to form VWSC and provide them necessary training and hand holding support to enable them to take up the responsibility of O&M independently.
- Six divisions[80] replied in response to audit observation that they were not aware of any IEC activity within their jurisdiction.
- No record was found with regard to women *baithak.*
- No mechanism was in place to evaluate the effectiveness of IEC activities. During physical verification at Gram Panchayat offices, markets, health centres etc. audit did not come across any IEC activities.
- Only 48 *per cent* (292 users) of 608 users covered by audit in field survey stated that they were aware of water quality issues and their remedies. However, of those 292 users, 212 (73 *per cent*) intimated that they became aware through radio/ televisions.

[80] *Mech./Elect. Div. Berhampore, Medinipur Div, Berhampore Div .I, South 24 Parganas W/S Div. I, Bankura W/S Div., Bankura Mechanical Division*

The department stated (January 2015) that Water & Sanitation Support Organisation (WSSO) has already taken up vigorous IEC activities to reach to every household. However, field survey by audit revealed limited impact of these activities in generating awareness at the beneficiary/ community level.

2.3.12 Monitoring and evaluation

NRDWP guidelines envisage that the State Government should take up monitoring and evaluation studies through reputed organisations/ institutions on the implementation of the rural water supply programme. However, no such study was undertaken (2009-14) by the State Government.

The department did not frame benchmark/ parameters of service standards in respect of access, usage, quality, quantity, reliability, responsiveness of service providers and user-satisfaction to evaluate performance of safe drinking water services. Various aspects of monitoring spelt out in the guidelines were not followed properly as discussed below:

- Annual updation of habitations with reasons of slip backs, was not done. Executive Engineers had been filling data of district monthly without maintaining the supporting field verification reports. The correctness of data entered online were not verified by any vigilance officer.
- Vigilance and Monitoring Committees at District and village levels were not set up (August 2014) to monitor the progress and exercise the vigilance on implementation of schemes.
- No records were available to indicate that State level and district level officers undertook regular field inspections to check and ensure that WQM&S programme was implemented in accordance with norms and that the community had been involved in analysis of drinking water samples through FTK, test reports displayed transparently in Gram Panchayat
- The department neither monitored nor conducted evaluation through STA on sustainability. No quality control unit has been set up and made functional. DWSM / SWSM did not have any team of experts to review quarterly/ half yearly on the implementation in different blocks/ districts. No social audit was conducted by the department to take stock of deficiency for corrective measures.
- M&I units were working at the state level without hydrologists, geophysicist and computer specialists. The R&D Cell was also not established (August 2014). Hardware, software and competent manpower were not provided at sub-division and block level.

2.3.13 Conclusions

Audit of the activities of the PHE Department on rural water supply threw light on various areas of inherent weaknesses in its system as well as in actual execution of works.

❖ The quality of planning needs improvement as participative planning process involving village community was not followed; village level committees (VWSC) were also not formed and district level committees (DWSC) were not adequately involved in the planning process.

Contemporariness of the field data based on which plans were made was also compromised as the department had to depend on decade old data.

- PHED did not maintain basic records in divisions regarding year-wise physical and financial target, component-wise monthly reports during 2009-14. In the absence of basic records, the veracity of the data uploaded in IMIS could not be vouchsafed.
- Progress in execution of piped water supply schemes (PWSS) was very slow which was attributable to deficient drawing and designing, non-availability of power, appointment of inefficient contractors, deficient planning etc. Even the newly commissioned schemes fell substantially short of actual delivery of water *vis-à-vis* design level supply capacity. House connections were not provided in test-checked PWSS inspite of having demands among inhabitants.
- On water quality front, effort of the department remained largely unproductive as water was sourced from arsenic-affected upper aquifer through improper execution by contractors, non-installation of mechanism for arsenic treatment, part-coverage of command area, etc.
- Water quality monitoring and surveillance activities were a matter of concern as there were deficiencies in water quality tests, shortfalls in collection of samples, infrastructure and other operational deficiencies of test laboratories, ineffective ground level surveillance on water quality etc.
- Meaningful involvement of the communities in maintaining and running water supply projects, as envisaged under NRDWP, could not be ensured in the absence of suitable by-laws under the State Panchayati Raj Act, coupled with deficient administrative measures to ensure transfer of the management of the assets to the PRIs. Capacity building measures also fell short of necessity due to deficiencies in training and IEC activities.

2.3.14 Recommendations

Audit recommends for consideration that

- ***Annual Action Plans be prepared adopting participative planning in accordance with the guidelines indicating the prioritisation of covering NC and PC habitations and completion of incomplete schemes.***
- ***For timely completion of the projects, the department ensure completion of survey work, availability of land, power and clearances from appropriate authorities before issuing work order.***
- ***Sourcing of water from arsenic-affected first aquifer in case of ground water based PWSS be monitored carefully. The department should put in place a system to ensure that water samples are collected in sufficient numbers, the same actually tested and immediate corrective action taken wherever necessary.***
- ***The department take immediate steps in co-ordination with P&RD to form VWSC, provide adequate training to manage the assets of PWSS and empower them with suitable by-laws under the State Panchayati Raj Act. Transfer of management of assets to the PRIs with hand holding support at initial stages should also be expedited.***

WOMEN & CHILD DEVELOPMENT AND SOCIAL WELFARE DEPARTMENT, SCHOOL EDUCATION DEPARTMENT AND HEALTH & FAMILY WELFARE DEPARTMENT

2.4 Implementation of Schemes and Acts relating to protection and welfare of girl child

Executive Summary

For protection of girl child from neglect and abuse and to ensure that the girl child is not only provided with equal opportunity for survival and development, but also offered various enabling means to develop full potential, a number of schemes and legislations have been introduced at both the national and the state level.

A performance audit on the implementation of some selected schemes and legislations intended for the welfare and protection of girl child revealed that impact of the Schemes and Acts remained compromised by laxity in functioning of monitoring authorities, deficiencies and delays in interventions.

- There was laxity in implementation of the Pre-conception & Pre-natal Diagnostic Technique Act, which primarily targeted to prevent pre-natal sex selection.
- The Ready-to-eat meal under the SABLA scheme was sporadically provided in four test-checked districts for one to four months, only during the year 2012-13.
- On the educational front, Kasturba Gandhi Balika Vidyalaya hostels needed more infrastructural support.
- Actions against marriage of girls below 18 years of age were often handicapped by the absence of specific details and documents of the offenders and delay in receiving reports further complicated by lack of public awareness on the evil results of child marriage.
- The Children's homes/ observation homes were suffering from shortage of space and infrastructure, giving rise to instances of overcrowding of inmates and even mixing of different categories of inmates. Homes/ cottages also failed to provide adequate health care.

2.4.1 Introduction

For protection of girl child from neglect and abuse and to ensure that the girl child is not only provided with equal opportunity for survival and development, but also offered various enabling means to develop full potential, a number of Schemes and legislations have been introduced at both the national and the state level.

The Women & Child Development and Social Welfare (WCD&SW) Department is responsible for implementation of the major schemes targeted for protection and welfare of girl child in the State. Besides, some girl-centric educational schemes are implemented by the School Education (SE) Department also. However, apart from specific schemes for girl child, government implements various other schemes for protection and welfare of

children in general of which girls are an inseparable part. Major departments responsible for operation of such Schemes/ Acts and a summary of such Schemes/ Acts implemented in the State are shown ***Appendix 2.4.1.***

2.4.2 Audit Objectives

Audit objectives were to assess whether

- Implementation of various Schemes and Acts were effective from the view point of protection and welfare of girl child.
- Proper oversight mechanism was in place and was working effectively.

2.4.3 Audit Criteria

The criteria used for framing audit comments were sourced from

- Guidelines of the concerned programmes/ schemes and the related Acts;
- Instruction/ orders issued for implementation of the schemes/ programmes.

2.4.4 Audit scope, coverage and methodology

The performance audit was conducted between March and September 2014 covering the period from 2009-10 to 2013-14. Apart from one Act[81] and two Schemes [82] targeting specifically protection and welfare of girl child, coverage was extended to two other Schemes [83] and one more Act,[84] implementation of which would result in interventions for girl child protection. Accordingly, audit scrutinised the records of three departments[85] responsible for implementation/ enforcement of these Schemes and Act. Records of district level functionaries of five districts (*viz*. Coochbehar, Jalpaiguri, Malda, Purulia and South 24 Parganas), selected through stratified sampling based on the sex ratio[86], were examined. Audit also test-checked 24 KGBV hostels (selected randomly out of 45 in these districts), seven homes[87] for girls and 26 Anganwadi Centres[88] (AWC) in these five districts.

An Entry Conference was held (April 2014) to explain the audit objectives, scope, methodology, etc. wherein Secretary of the WCD&SW Department was present. Audit observations, conclusions and recommendations have been discussed with the Departments in an Exit Conference (January 2015). The responses of the departments, wherever found relevant, are incorporated in the report.

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[81] *PC&PNDT Act*
[82] *SABLA and KGBV*
[83] *Integrated Child Protection Scheme and Cottage Scheme for welfare of Destitute Children (6-18 years)*
[84] *Prohibition of Child Marriage Act 2006*
[85] *Women & Child Development and Social Welfare; School Education; Health & Family Welfare*
[86] *Districts were stratified into two strata -Stratum I with districts having sex-ratio less than the state average and Stratum II with districts with sex ratio more than the state average. Two districts viz. Cooch Behar and Malda were selected from the first stratum out of eight districts while three (Jalpaiguri, Purulia and South 24 Parganas) out of 11 districts were selected from the second stratum.*
[87] *Coochbehar:1, Malda:1, Jalpaiguri: 2, Purulia:1 and South 24 Parganas:2*
[88] *Coochbehar:5, Malda:6, Jalpaiguri: 13 and Purulia:2*

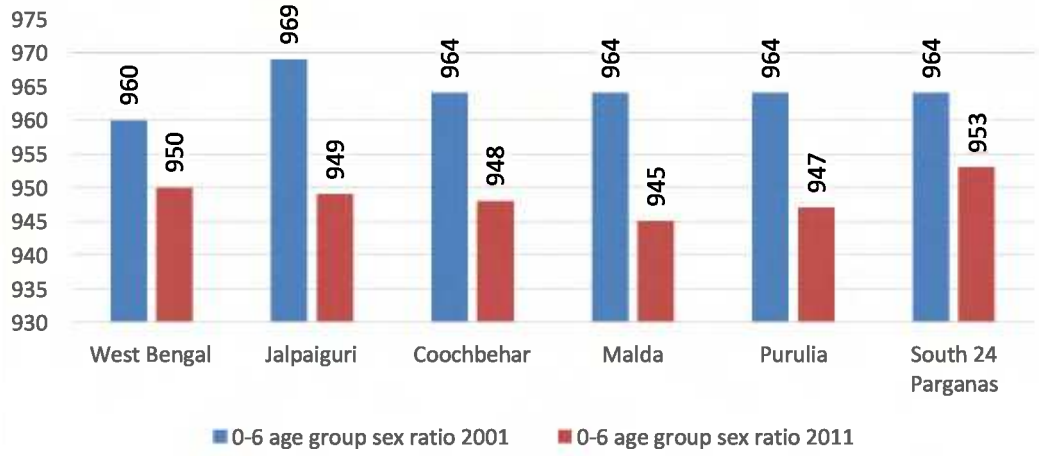
Audit Findings

Audit findings on implementation of various Schemes /Act/ activities from the view point of protection and welfare of girl child are discussed in the subsequent paragraphs:

2.4.5 Prevention of pre-natal sex selection and female foeticide

Trend of child sex ratio (CSR) in test-checked districts: Though the overall sex ratio in the State improved in 2011 as compared to 2001, it was noticed that there was a significant decline in the CSR (0 to 6 years) of the State as well as the five test-checked districts as indicated in **Chart 6,** pointing to the possibility of preference for boys playing a role behind such decline.

Chart 6:The sex ratio (number of Females per 1000 Males) and the sex ratio in the age group of 0-6



Source: Census of India 2001 and 2011

In this backdrop, Audit examined the implementation of Pre-conception & Pre-natal Diagnostic Technique (PC&PNDT) Act and observed the following:

- ***Shortfall in expenditure under the PC&PNDT Act:*** Under the PC&PNDT Act, District Appropriate Authority (DAA)[89] is entrusted with the implementation of the provisions of the Act in the district. They are permitted to utilise funds received for registration or renewal for the activities connected with the implementation of provisions of the Act and rules. Funds are also provided by National Rural Health Mission for the activities under PC&PNDT. Audit noticed that only 40 *per cent* (₹ 20.96 lakh) of available funds (₹ 52.75 lakh[90]) was utilised by the five test-checked districts during the period from 2009-10 to 2013-14.
- ***Status of USG centres not available:*** The Act provides for necessary control on the number of machines/ USG centre operating to avoid its misuse. However, in Coochbehar, status of four USG Centres registered before April 2010 was not available with the District Authority as of

[89] *As notified by the State in July 2012, DAA is a four member body consisting of Addl. DM as Chairperson, CMOH, a Legal Expert and District Maternal & Child Health Officer as members.*

[90] *PC&PNDT: Opening Balance of ₹ 1.57 lakh plus receipt of ₹ 17.98 lakh and NRHM : Opening Balance of ₹ 2.42 lakh plus receipt of ₹ 30.78 lakh*

May 2014. This may be viewed with the fact that in Coochbehar CSR had reduced from 964 in 2001 to 948 in 2011.

- ***USG centres without valid licenses:*** Certificate of registration of USG Centres registered under the Act were valid for five years and the USG Centres have to apply to the DAA for renewal of certificate of registration 30 days before its expiry. In Jalpaiguri, six USG centers (***Appendix 2.4.2***) were running without valid licenses as the same were not renewed for more than two to seven and a half years (August 2014) since their expiry.
- ***District Inspection and Monitoring Committee (DIMC):*** DAA was to supervise the activities of the implementation of the Act through field visit of USG Centres by DIMCs. Out of five test-checked districts, DIMC was not formed in Malda.
- ***Shortfall in visit of USG/ imaging centres:*** The number of premises of USG/ imaging centers visited by the Appropriate Authorities or persons authorised by it in five test-checked districts during 2009-14 is shown in **Table 2.4.1**, from which it is seen that in Malda and Purulia districts, no visits were made during 2009-13. Coverage of centres (zero to 45 *per cent* annually) in other districts was also very low.

Table 2.4.1: Number of USG centres and number of visits during 2009-14

Year	South 24 Parganas		Malda		Coochbehar		Purulia		Jalpaiguri	
	No of USG Centres									
	Existing	Visited	Existing	Visited	Existing	Visited	Existing	Visited	Existing	Visited
2009-10	NA*	NA	NA	Nil	NA	NA	18	Nil	28	Nil
2010-11	NA	NA	19	Nil	NA	NA	18	Nil	30	10
2011-12	98	NA	24	Nil	NA	NA	19	Nil	37	8
2012-13	105	7	30	Nil	NA	NA	21	Nil	41	3
2013-14	109	20	31	2	17	2	20	9	46	Nil

**NA: Not Available. Source: Quarterly reports on implementation of PC&PNDT Act submitted by the District authorities to the Department for consolidation and onward submission to GoI*

- Calendars for visit of USG/ genetic centres had not been prepared in three of the five test-checked districts. In South 24 Parganas and Purulia, it was found to be prepared for only one quarter during 2013-14.

On the above being pointed out, the Health and Family Welfare Department, in its reply (December 2014) stated that declining sex ratio is more a social cause than a health cause. The department *inter alia* stated that governance regarding implementation of the PC&PNDT Act was being strengthened through regular meetings of the committees involved in monitoring.

2.4.6 Nutrition and health of girl child

With the aim to improve the nutritional and health status of adolescent girls (AGs) of 11-18 years and to equip them with life skill and provide them with knowledge on family welfare, health and hygiene, information and guidance on existing public services and mainstreaming them in formal schooling, Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG), SABLA, a centrally sponsored scheme, was launched. Nutrition and Non-Nutrition are the two major components under the scheme. The scheme implemented through the ICDS[91] platform with Anganwadi Centre (AWC) as the focal point for service

[91] *Integrated Child Development Services*

delivery, is in operation in six[92] districts since 2011which includes the four test-checked districts.

- ***Failure of the department in spending GoI funds:*** Audit noted that the department could not utilise the available funds fully. Though the department received funds from GoI in February 2011, these were disbursed to districts only in February 2012 delaying the activities by a year. During 2011-14, ₹ 118.85 crore (Nutrition: ₹ 110.06 crore and Non-Nutrition: ₹ 8.79 crore) was released to the Social Welfare Directorate for onward disbursement to districts implementing SABLA scheme, of which ₹ 24.27 crore (20 *per cent*) lapsed for non-allotment to districts within 31 March 2014. Further, State Government did not release ₹ 12.90 crore as its fifty *per cent* share for 2011-12 under nutrition component though provided in scheme guideline. Such non-utilisation of funds coupled with non-provision of State share adversely affected the implementation of scheme.

- ***Parking of funds:*** An amount of ₹ 48.85 crore (Nutrition: ₹ 45.28 and Non-Nutrition: ₹ 3.57 crore) was allotted to the four test-checked districts in February/ March 2012. Out of this, ₹ 2.89 crore (Nutrition: ₹ 2.86 crore and Non Nutrition: ₹ 0.03 crore) lapsed as Child Development Project Officers (CDPOs), having no bank account to retain the funds, did not draw the funds on the closing days of the financial year. From the available funds, 33 *per cent* (₹ 13.90 crore) and 59 *per cent* (₹ 2.09 crore) were expended under Nutrition and Non-Nutrition components respectively and the balance of ₹ 29.97 crore remained parked (₹ 19.99 crore in DM's bank account/ PL account and ₹ 9.98 crore with the CDPOs in the form of bankers' cheque or draft) resulting in non-utilisation of 65 *per cent* of the available funds. Such low level of expenditure despite availability of funds affected the scheme implementation as discussed below.

2.4.6.1 Nutrition component of SABLA: The out of school AGs in the age group of 11-15 years attending AWCs and all girls in the age group of 15-18 years are to be provided Supplementary nutrition (SN) in the form of Take Home Ration (THR)[93] for 300 days in a year.

Sporadic implementation of scheme leading to shortfall in achievement: Audit found that WCD&SW Department directed (August 2011) the districts to start THR in the form of ready to eat meals (RTE) from September 2011 without allotting any fund. Funds were made available only in February 2012 and RTE was introduced in test-checked districts only between April 2012 and October 2012. Further, the scheme which was started in 2010-11 was implemented sporadically, and that too only in one year (2012-13) for total periods varying from one to four months in four test-checked districts. (***Appendix 2.4.3***).

2.4.6.2 Non-Nutrition component of SABLA: The package of services under Non Nutrition component to be provided to AGs were as under:

[92] *Coochbehar, Jalpaiguri, Malda, Purulia, Nadia and Kolkata*

[93] *Each AG is to be given S N containing 600 calories, 18-20 grams of protein and micronutrients per day*

Iron and Folic Acid (IFA) supplementation: For combating anemia and enhancing adolescent growth, out of school AGs attending AWCs were to be given two adult IFA tablets per week when they come to the AWC for other services, according to the scheme guidelines issued in December 2010. The position of supply of IFA tablets to adolescent girls in the test-checked districts during 2010-14 has been shown in **Table 2.4.2**.

Table 2.4.2: Supply of IFA tablets to adolescent girls during 2010-14

District	No. of ICDS Projects	Eligible number of AGs	Annual Requirement	IFA supplied			
				2010-11	2011-12	2012-13	2013-14
Coochbehar	12	11280	11,73,120	N A*	N A	190,716	19558
Jalpaiguri	15	31285	32,53,640	83034	10,19,921	490,285	13608
Malda	16	74174	77,14,096	N A	N A	N A	14,80,948
Purulia	21	70329	73,14,216	113,000	175,000	282,890	401,500

**NA- Not Available, Source: Data provided by CDPOs of respective districts.*

As could be seen from the **Table 2.4.2**, there were significant shortfalls during 2010-14. Thus, efforts to combat anemia remained deficient.

Health check-up and referral services: This includes general health check-up of all AGs, at least once in every three months by the Health functionaries on a day designated as *Kishori Diwas*[94]. To keep close watch over the growth status of AGs, height, weight and BMI are to be recorded on Health Card (*Kishori* Card). AGs with problems requiring specialised treatment should be referred to hospitals/ PHCs/ CHCs/ district hospitals. Each project was to be provided with ₹ 60000 per year for observing Kishori Diwas (₹ 30000) and printing of health cards/ registers/ purchasing utensils etc. (₹ 30000).

Audit observed the following deficiencies in this respect.

Shortfall in release of funds: Adequate funds were not provided to the projects for celebrating Kishori Diwas. During 2011-14, only ₹ 60000 was provided (February and March 2012) for celebrating *Kishori Diwas* that too in the same year. Consequently, number of *Kishori Diwas* observed fell short of targets as indicated in **Table 2.4.3**.

Table 2.4.3: Status of holding Kishori Diwas in four test-checked districts

District	No. of ICDS Projects	Normative no. of Kishori Diwas required to be observed annually	No. of Kishori Diwas observed			
			2010-11	2011-12	2012-13	2013-14
Coochbehar	12	48	0	Not Available		
Jalpaiguri	15	60	0	Not Available		
Malda	16	64	0	16	0	3
Purulia	21	84	0	21	21	0

Source: Data provided by Child Development Project Officers

[94] *Kishori Diwas will be a special health day and will be celebrated once in three months on a fixed day as decided by the State Government. On this day, Anganwadi Workers (AWWs) with the help of health functionaries, including Medical officer, Auxiliary Nurse Midwife (ANM) and Accredited Social Health Activist (ASHA) will mobilise Adolescent Girls (AGs) and their families to assemble at Anganwadi Centres (AWCs). On this day, general health check-ups, filling up of Kishori cards, referral to specialised healthcare facilities and Information, Education and Communication (IEC) services will be provided to AGs.*

During exit conference (January 2015), Secretary, WCD&SW Department accepted the fact that Kishori Diwas was not being observed in adequate numbers.

Nutrition and Health Education (NHE) and Life Skill Education (LSE):

The scheme provides for imparting training on life skill education (LSE)[95] and nutrition and health education (NHE) to all AGs attending AWCs. The scheme provides ₹ 50000 and ₹ 30000 per year per project as cost of LSE and NHE respectively.

Shortfall in release of funds and deficient activities: Out of total ₹ 3.20 lakh receivable by each project during 2011-14 (one in every year) for LSE and NHE training, only ₹ 1.60 lakh was released in the last quarter of 2011-12. It was seen that no initiatives for NHE and LSE were undertaken in any of the test-checked districts during 2010-12 except in Malda (***Appendix 2.4.4***). During 2012-14, these activities in Malda and Jalpaiguri were partial, while in the remaining districts, all projects were covered. Thus, the department failed to impart NHE and LSE to all AGs in all test-checked districts uniformly.

Shortfall in Vocational Training: Out of school AGs above 16 years of age are to be provided with vocational training for orientation towards self-employment after 18 years of age. Scheme guideline stipulates allocation of ₹ 30000 per year per project for Vocational Training. However, such funds were provided to districts only twice (February and March 2012) during 2011-14. As a result, performance under this package was not satisfactory as indicated in **Table 2.4.4.**

Table 2.4.4: Status of vocational training of AGs

District	No. of ICDS Projects	No of eligible AGs	Training on Vocational Education								
			2010-11		2011-12		2012-13		2013-14		2010-14
			P	AG	P	AG	P	AG	P	AGs	AG (per cent)
Coochbehar	12	6486	0	0	0	0	1	50	0	0	50 (1)
Jalpaiguri	15	19829	0	0	0	0	15	1100	3	100	1200 (6)
Malda	16	42471	0	0	16	800	8	400	6	300	1500 (4)
Purulia	21	36198	0	0	0	0	21	1050	21	1050	2100 (6)
Total		**104984**	**0**	**0**	**16**	**800**	**45**	**2600**	**30**	**1450**	**4850 (5)**

P: Project, AG: Adolescent girls.
Source: Data provided by CDPOs of respective districts

Thus, only five *per cent* of the total eligible AGs were trained.

Absence of follow-up: Further, Vocational Training Providers (VTPs) were to support the trainees for getting employment and track them for three years or till they are gainfully employed. Such follow up was not done in any of the test-checked districts.

Kishori Samooh (KS): The modalities for implementation of the scheme called for creating *Kishori Samooh* - groups at AWC level comprising of 15 to 25 AGs in each group, training and providing them with training kits. Each *Kishori Samooh* will be headed by one *Sakhi* assisted by two *Sahelis* each having a term of four months as *Sakhi* on rotation basis and will serve the group for a period

[95] *Covering issues like confidence building, development of self-awareness and self-esteem, decision-making ability, capacity for critical thinking, better communication skills, awareness of rights and entitlements, coping with stress, responding to peer pressure, functional literacy, etc.*

of one year. They were to be imparted Sakhi Saheli Training (SST) to serve as peer-monitors/ educators for the groups and participate in regular activities of AWC, like providing pre-school education and supplementary nutrition, growth monitoring etc.

- ***Shortfall in number of KSs in test-checked districts:*** **Table 2.4.5** indicates that stipulation in forming KSs among the identified AGs was not adhered to in three test-checked districts. Shortfall in formation in KS was significant in Malda and Purulia.

Table 2.4.5: Status Kishori Samoohs formed

District	Number of ICDS Projects	Minimum number of KSs to be formed	KS Formed	Shortfall in KS formation in percentage
Coochbehar	12	6869	7685	-
Jalpaiguri	15	6696	5600	3
Malda	16	9050	4759	47
Purulia	21	8353	3727	55

Source: Data provided by respective project officers

The following were noticed during physical inspection of 26 AWs and interaction with AGs attached to those AWs conducted jointly with the departmental representatives.

- ***Deficient training of Sakhis and Sahelis:*** Adequate funds for SST were not provided for training of Sakhi and Sahelis, though ₹ 40,000 per year per project were required to be provided to districts. Funding was discontinued after releasing the first two instalments in February and March 2012. It was seen that this training was not conducted in all projects of Malda and Jalpaiguri during 2012-14. In Malda, training was conducted only in 50 and 37 *per cent* of projects in 2012-13 and 2013-14 respectively, while in Jalpaiguri, it was conducted in 33 *per cent* of projects. Thus, the intervention meant for development of leadership qualities, team spirit, etc. was not implemented adequately.
- AWCs were not provided with training kits to make the training interesting. Though allotment for the same was received in March 2012, funds remained parked as had already been mentioned earlier in this para.

During exit conference, Secretary, WCD&SW Department admitted (January 2015) that emphasis was lacking in the matter of formation of *Kishori Samooh.*

2.4.7 Kasturba Gandhi Balika Vidyalaya (KGBV)

The objective of KGBV, an intervention under Sarva Siksha Abhiyan (SSA) umbrella, was to ensure access and quality education to the girl child of disadvantaged groups of society by setting up hostel facilities (KGBV hostel) at existing upper primary girls' schools in Educationally Backward Blocks (EBB). In five test-checked districts, there were 45 EBBs each having a KGBV hostel.

Audit observations on test-checked KGBV hostels: Out of 45 KGBV hostels (benefitting 3813 girls as per 2013-14 data) in the selected districts, 24 hostels providing benefit to 2091 girls were test-checked in audit. The following points emerged.

In two hostels, adequate numbers of beds were not available. In one[96] hostel, there were 91 beds for 96 girls while in another[97], for 131 girls, only 100 beds were available.

- Health check-up of the boarders were to be conducted once in every quarter. In eight[98] test-checked hostels, against the requirement of 20 health check-ups during 2009-14 in each hostel, in three, the Medical Officers did not attend regularly and in one it was not at all held.
- In five hostels, there were no working arrangements like filter, aquaguard, etc. for ensuring the quality of drinking water.
- In four, generators were not either functioning (three) or were not available (one).
- Vocational training was not provided in three hostels.
- Fire extinguishers were not installed in six[99] test-checked hostels of three districts.

Thus, many KGBV hostels needed more support on the infrastructure front to provide better educational facilities to girl child.

In reply, the School Education Department stated (January 2015) that issues on infrastructural deficiencies have been carefully noted and the district authorities have been asked for immediate action.

2.4.8 Implementation of Schemes and Acts for the welfare of children including girl child

Apart from the Schemes which specifically focus on girl child, there are other Schemes under the Women & Child Development and Social Welfare Department which target protection and welfare of children in general. As welfare of girls is an inseparable part of these Schemes, efficient implementation of all these activities result in effective interventions in welfare of girl child.

2.4.8.1 Prevention of marriage of under-age girls

Marriage of under-age girl has been a matter of concern in West Bengal, as the National Family Health Survey-West Bengal (2005-06) showed the fifth highest prevalence of child marriage amongst all the states with 54 *per cent* of married women (age 20-24) having been married before the age of 18. This phenomenon adversely affects education, health, nutritional status, growth and development of girls. Though the situation has improved as per the latest Survey (DLHS-4, 2012-13), there is further scope for improvement, as 32 *per cent* of the girls are reported to be married before the age of 18.

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[96] *Mathurapur Tilak Sundari Girls' School KGBV Hostel*

[97] *Baghmundi Girls' High School, KGBV Hostel*

[98] *Jamtala KGBV Chatriniwas, Kultali under South 24 Parganas; GSA High Madrasa KGBV Hostel, Malda; Sitalkuchi Gopinath High School KGBV Hostel, Coochbehar; Matelli Junior. High School for Girls' KGBV Hostel, St. Capitanio Girls' High School KGBV Hostel, Union Academy High School for Girls KGBV Hostel and Lataguri Girls' High School KGVB Hostel, Jalpaiguri, and Baghmundi Girls' High School KGVB Hostel, Purulia*

[99] *Janapriya Nagar Janapriya Vidyalaya (HS) KGBV Hostel, Basanti, Nalgoradham Baikuntha Vidyapith (HS), Joynagar-II, Howramari High School, Canning-II, Jamtala KGBV Chatriniwas, Kultali, Pipla High School KGBV Hostel and Union Academy, Kalchini*

The Prohibition of Child Marriage Act 2006, promulgated by GoI prohibits child marriage. As per the Act, the State Government by notification in the official Gazette was to appoint Child Marriage Prohibition Officer empowered to prevent child marriages, create awareness and sensitise the community against the practice, collect evidence against the offenders, etc. and to make rules for carrying out the provisions of the Act.

Non-notification of rule against child marriage: Though District Social Welfare Officers were designated as Child Marriage Prohibition Officers at district level, no rules have been framed by the State Government (August 2014). In the absence of any rule, Women & Child Development and Social Welfare (WCD&SW) Department, the nodal department for implementation of the act, did not exercise any monitoring or supervision in respect of the implementation of the Act. There was no system of reports/ returns from the districts to monitor child marriage in the State, neither was any budget provisions made during the entire period 2009-14 for implementation of the provisions of the Act, especially for activities like community awareness creation and community sensitisation which were essential for effective implementation of the Act.

Position of test-checked districts: In five test-checked districts, audit noticed the following:

- Though three out of the five test-checked districts had data on child marriage cases reported and action taken thereon, it was not available for Jalpaiguri for last five years and for Purulia for 2009-13 indicating laxity in implementation of the Act in these two districts.
- Number of cases reported and cases prevented in the test-checked districts during 2009-14 are indicated in **Table 2.4.6** below

Table 2.4.6: Number of child marriages reported and prevented

District	Report available for the period	Cases reported	Cases on which action was taken	Cases prevented	Cases that could not be prevented (percentage on number of reported cases)
South 24 Parganas	2011-12 to 2013-14	31	31	31	Nil
Malda	-do-	539	427	343	84 (16)
Coochbehar	-do-	44	44	29	15 (34)
Purulia	2013-14	7	7	3	4 (57)
Jalpaiguri	Not Available				
Total		**621**	**509**	**406**	**103 (17)**

Source: Data provided by respective District Child Protection Societies (DCPSs)

The wide variations in the data reported from different districts presented in **Table 2.4.6** suggest inadequacies in the reporting system itself, pointing to under-reporting in all districts except Malda. Of the above districts, only Malda had a database maintained by the DCPS, while in the other cases, secondary data were supplied by the DCPS from the district unit of an NGO who was entrusted with 24/7 emergency phone outreach service for children in need of care and protection.

District authorities/ DCPSs attributed its partial failure in preventing reported cases of child marriage to absence of specific information like name, address of the offender and age proof document, delay in reporting, non-cooperation from

department maintaining law and order, mass prevention by villagers for lack of awareness of the evil results from child marriage and couples going out of station to get married.

The above reasons pointed to lack of awareness and sensitisation among the masses and the need to have greater inter departmental co-ordination. Audit found that awareness activities were not undertaken in three test-checked districts (Coochbehar, Jalpaiguri and South 24 Parganas), while activities like distribution of leaflets and wall paintings were undertaken in Malda and Purulia with active support/ co-operation of NGOs and UNICEF funding.

2.4.8.2 Integrated Child Protection Scheme

ICPS focuses its activities on children in need of care and protection and children in conflict[100] and contact[101] with the law. Accordingly, it aims to provide care, support and rehabilitation services. The scheme provides for elaborate institutional arrangements for identification of these children and providing them with suitable support services. The functioning of the most significant of these authorities and the interventions undertaken are discussed below with an emphasis on girl child.

Institutional care for children is the last resort for protection and care of children if family and community–based alternatives for care could not be arranged. These include children's homes, observation homes and special homes. Management of some homes meant for girls are discussed below.

Children's Homes (for girls): These homes are to provide shelter to children in need of care and protection (CNCP) during the pendency of inquiry by CWC. Number of such homes for girls along with their approved capacity and the number of inmates during the period from 2009-10 to 2013-14 in five test-checked districts are detailed in the **Table 2.4.7** below.

Table 2.4.7: Children's homes for girls in five test-checked districts

District	Homes	Capacity	Number of inmates in Observation Homes (*Percentage of excess inmates*)				
			31.03.10	31.03.11	31.03.12	31.03.13	31.03.14
Coochbehar	1	100	NA	NA	111 (11)	93	83
Jailpaiguri	2	75	21	38	62	66	92 (23)
Malda	1	25	29 (16)	33 (32)	34 (36)	66 (164)	65 (160)
Purulia	1	100	41	38	57	66	67
South 24 Parganas[102]	2	100	NA	29	41	139 (39)	159 (59)

NA: Not available; *Source: DCPSs and respective homes*

Audit visited all the above seven homes jointly with departmental functionaries and noticed the following:

- ***Overcrowding in homes:*** Some homes were overcrowded as the number of inmates exceeded the approved capacity by 16 to

[100] *A child who is alleged to have committed an offence*

[101] *A child who has come in contact with the law either as victim or as a witness or due to any other circumstance.*

[102] *In south 24 Parganas, in 2009-10 only one home was available with a capacity of 50 which became two homes in 2010-11 with 75 girls. The total capacity of these two were increased to 100 in 2011-12.*

160 *per cent* in Malda (2009-14), 39 and 59 *per cent* in South 24 Parganas (2012-14) and 23 *per cent* in Jalpaiguri (2013-14) as would be evident from the table ***Table 2.4.7.***

- ***Cases of non-segregation of juveniles:*** All homes were amalgamation of different category of homes like children home, observation home, swadhar home[103], special home and after care home. In two observation homes test-checked (Anandamath, Purulia and Sahid Bandana Smriti Mahila Awas, Coochbehar), special homes and children's homes were functioning together (except in Coochbehar where juvenile girls were kept in one room separated by iron grill). Thus, children in need of care and protection were being kept along with juveniles in conflict with law which was against the spirit of the JJ Act which mandates segregation of even juveniles according to their age, nature of offences and their mental and physical status.
  During exit conference (January 2015), Secretary, WCD&SW Department attributed amalgamation of different homes and non-segregation of children in need of care and protection (CNCP) from juveniles in conflict with law to insufficient number of homes.
- ***Security issues in homes:*** There was no boundary wall in three homes[104] compromising the security of the inmates. Out of three, in one (HASUS for girls, South 24 Parganas) there was temporary bamboo fencing around the home.
- ***Infrastructural shortcomings in homes:*** Facilities like playground, sufficient toilets, bathrooms and cots and beddings were not available in three to four test-checked homes.
- ***Inadequate health care arrangements***: Regular health check-ups were to be conducted and there was to be a doctor on call who was to visit the home every alternate day. However, no such arrangement was put in place.
- ***Non-provision of education to all inmates:*** Out of 466 girls (as of March 2014), only 213 (46 *per cent*) girls were getting the facility of school education though Right to Education Act, 2009 provides education for all children aged between six and fourteen years. Action was not taken to provide education to the remaining inmates.

Observation Homes: These homes provide adequate residential care and protection to children in conflict with law {who enter the juvenile justice system through the Juvenile Justice Boards (JJBs)} during the pendency of any inquiry. The Juvenile Justice (JJ) Act empowers the State Government to establish and maintain Observation Homes either by itself or under an agreement with voluntary organisation in every district or group of districts for their temporary reception.

In total, there were five Observation Homes for girls (three Government run and two NGO-run) in the test-checked districts. Out of these, in case of two (Malda and Coochbehar) with a total capacity of 30 inmates, occupancy increased steadily from 26 (87 *per cent*) to 55 (183 *per cent*) during 2009-2014. Audit noted the following in this regard.

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[103] *Swadhar homes cater to various types of women in distress in diverse situations under different conditions such as widow, victims of domestic violence, trafficking, etc.*

[104] *Nijoloy, Jalpaiguri; District Shelter, Malda and HASUS for girls, South 24 Parganas*

❖ ***Overcrowding of inmates:*** Overcrowding was noticed in two test-checked districts *viz.* Malda and Coochbehar as shown in **Table 2.4.8**:

Table 2.4.8: Congestion in observation homes of Malda and Coochbehar

District	Homes	Capacity	No of Inmates in Observation Homes (*Percent*)				
			31.03.10	31.03.11	31.03.12	31.03.13	31.03.14
Malda	1	5	NA	NA	6 (120)	25 (500)	46 (920)
Coochbehar	1	25	26 (104)	33 (132)	28 (112)	23 (92)	9 (36)

NA: Not available *Source: DCPSs and respective homes*

No action was taken to address such overcrowding in these districts.

2.4.8.3 Cottages scheme for welfare of destitute children

To provide shelter, food, clothing, medical care and recreation, education and useful vocational training to destitute children for their rehabilitation, grants are provided to NGOs to establish cottages by the Central Government. Out of the five test-checked districts, 16 cottages for girl[105] children were running in four districts, where 862 girls were being provided care as of March 2014. There was no cottage available in Malda. Out of this, audit visited 10 cottages alongwith departmental representatives where 390 girls were residing and noticed the following.

Manipur Leprosy Rehabilitation Centre (Purulia)

- ***Security issues:*** Except for some temporary bamboo fencing around one cottage, there was no boundary wall in five (50 *per cent*) cottages risking the security of 156 girls residing there.
- ***Educational facilities:*** Out of 390 girls accommodated in those cottages, 284 (73 *per cent*) were availing the facility of school education. Action was not taken to admit the remaining children in schools.

2.4.9 Monitoring

An effective monitoring system ensures compliance to the provisions of various scheme guidelines and provisions of Acts and ensures effective service delivery. The monitoring mechanism and the extent of monitoring is discussed in the subsequent paragraphs.

➢ ***Weak mechanism for monitoring on pre-natal sex selection:*** As regards prevention of pre-natal sex selection, the institutional framework for implementation and monitoring was weakened by non-formation of District Inspection and Monitoring Committee (DIMC) in Malda and infrequent field visits by the DIMC (para 2.4.5).

➢ ***Non-formation of committees for monitoring of SABLA inspite of notification:*** For monitoring of SABLA, the scheme meant for enhancement of nutritional and health status of girls, the scheme guidelines provide for formation of Monitoring and Supervision Committees at district/ project/ Gram Panchayat levels headed by the District Magistrate/ CDPO/ Woman Gram Panchayat Member. District level and project level

[105] *12 exclusively for girls and four for both boys and girls (South 24 Parganas: 10, Coochbehar: one, Purulia: two and Jalpaiguri: three)*

Monitoring and Supervision Committees were not formed in any of the test-checked districts except Coochbehar, though WCD&SW Department notified their formation in July 2011. Committees at village level were not constituted in any of the test-checked districts. Thus, the oversight mechanism, though instituted, was not functioning.

- ***Non formation of District Gender Co-ordination Committee:*** For monitoring of promotion of girls' education programmes, District Gender Co-ordination Committees were to be formed. The committee was to meet at least twice a year. It was observed that these Committees had not been formed in any of the test-checked districts. Further, cluster level committees were to be formed at all clusters to monitor the activities of the cluster. These were not constituted in one test-checked district (Purulia).
- ***Monitoring mechanism envisaged under ICPS not in place:*** For effective monitoring of child protection and child care services ICPS provides that every district/block/village should have a Child Protection Committee (DCPC/BLCPC/VLCPC) to monitor the implementation of the scheme in the district/block/village. This, however, was not formed in any of the districts in West Bengal. As regards block level committees, out of 20 blocks and three municipalities in five test-checked districts, these Committees were formed only in five blocks and two municipalities of Purulia. VLCPCs were not formed in any of the five test-checked districts. Thus, the mechanism meant for effective monitoring of child protection and child care services were not in place. As such, the grass root level monitoring mechanism involving the community failed to take off.

  During exit conference (January 2015), Secretary, WCD & SW Department informed that constitution of Child Protection Committees (CPC) at the two levels *viz.* block and village were underway. It was also informed that a guideline for working of these committees had already been framed and training conducted.

2.4.10 Conclusions

Performance audit on implementation of various Government interventions in protection and welfare of girl child revealed that there was scope for further improvement both in terms of coverage and effectiveness.

Authorities for prohibition of **sex selection** showed low level of activity. There was laxity in implementation of the PC&PNDT Act which primarily targeted to prevent pre-natal sex selection. Though the test-checked districts presented a declining trend in CSR in 2011 *vis-à-vis* 2001, the department's ignorance of even the numbers of the USG centres and status of their licenses coupled with shortfall in inspection of such centres in these districts were matters of concern.

Government interventions in providing **nutrition** to girl child fell short in yielding desired impact as the scheme which started in 2010-11 was implemented in four test-checked districts only during one year (2012-13), and that too sporadically for one to four months. The scheme implementation was impeded by delay in release of funds and non-provision of adequate funds. Significant quantum of released funds also remained parked without being utilised. Various interventions meant for health care and overall development of adolescent girls could not be implemented effectively.

On the **educational** front, many KGBV hostels needed more infrastructural support.

Action against **marriage of under-age girls** was often handicapped by absence of specific details and documents of the offenders and delay in receiving reports further complicated by lack of public awareness on the evil results of child marriage.

The **Children's homes/ observation homes** were suffering from shortage of space and infrastructure, giving rise to instances of overcrowding of inmates and even mixing of different categories of inmates. Homes/ cottages also failed to provide adequate health care and educational facilities.

Impact of the Schemes and Act relating to protection and welfare of girl child remained compromised by laxity in functioning of monitoring authorities coupled with deficiencies and delays in interventions.

2.4.11 Recommendations

Audit recommends for consideration that

- ***Authorities for prohibition of pre-natal sex selection effectively monitor the USG/ imaging centres.***
- ***In case of SABLA, adequate funds are released timely and are utilised for the effective implementation of various interventions.***
- ***Infrastructural deficiencies in KGBV hostels be adequately addressed.***
- ***Inter departmental co-ordination and public awareness activities be taken up more effectively to prevent child marriages.***
- ***Oversight activities be strengthened by putting in place the prescribed monitoring mechanism and by ensuring that the bodies entrusted with monitoring are discharging their functions as stipulated.***

HEALTH AND FAMILY WELFARE DEPARTMENT

2.5 IT Audit of Hospital Management Information System and Stores Management Information System

Executive Summary

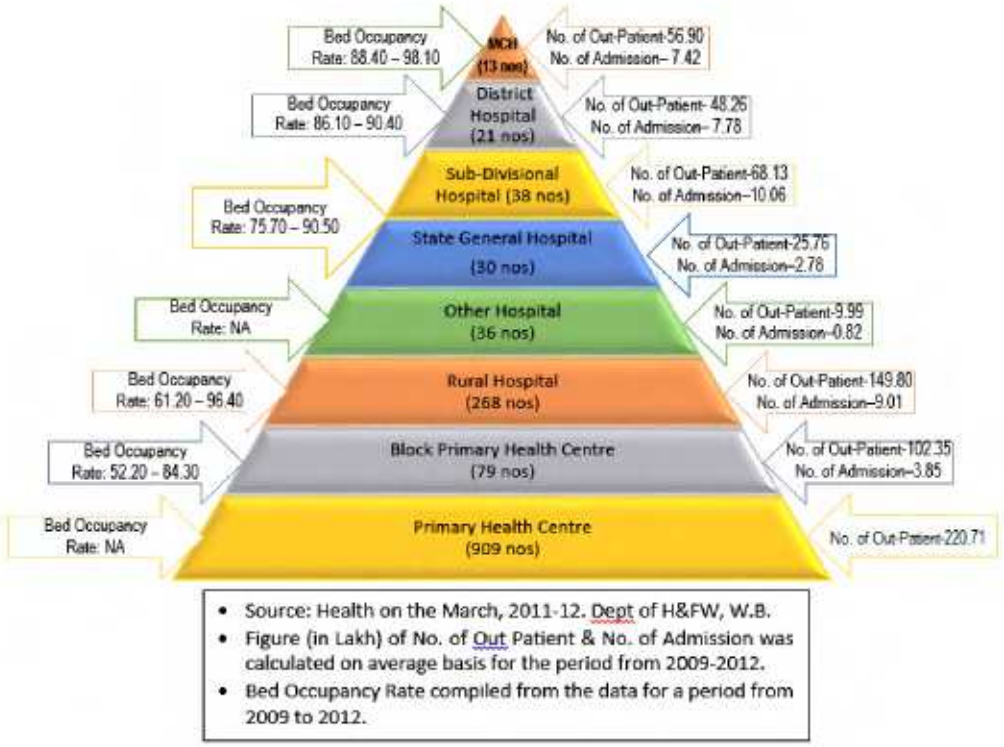
Hospital Management Information System (HMIS) aimed at managing vital patient records encompassing all the administrative and functional aspects of hospital operations. Department also intended to collate critical health related data from the hospitals through HMIS. The department introduced another application named Stores Management Information System (SMIS) for managing drugs and equipment logistics. Both HMIS and SMIS were implemented in all government hospitals down to the level of State General Hospitals. While HMIS was developed using SQL Server 2000 as backend RDBMS with Visual Basic in the front end having a client server architecture, SMIS was a web-based application using MS SQL Server 2000 in the back end and VB.net in the front end.

The IT Audit of HMIS and SMIS was conducted between April and July 2014 covering the period 2009-14 and 2011-14 respectively, which threw light on various issues of control and data integrity as well as instances of unauthorised manipulation of data.

- The desired benefits of improvement of the efficiency of delivery of health care services through introducing HMIS and SMIS remained largely unachieved as the department failed to operationalise these applications in all the intended hospitals. Even where these applications were running, all modules and sub-modules were not put to meaningful use.
- Security of the systems was compromised to a great extent owing to weak logical access controls, physical access controls and absence of password policy.
- It was also a matter of concern that privileges of system administrator were being exercised by support personnel engaged by the maintenance vendor. Lack of supervisory controls was also evident from the instances of manipulation in the system without knowledge of the hospital authorities.
- Deficient controls coupled with absence of security certificate, antivirus, audit trail and logs have rendered the system vulnerable to unauthorised intrusions. These vulnerabilities have resulted in possibility of defalcation of government revenue, as instances of unexplained short collection of revenue were observed in many occasions.
- Ability of the department in continuing its operations in the event of an interruption remains questionable in the absence of business continuity and disaster recovery plans. This issue assumed significance in view of instances of non-maintenance of data back-up.

2.5.1 Introduction

Conceptualised in 2002-03, Hospital Management Information System (HMIS) aimed at managing vital patient records and collating critical health related data from the hospitals, encompassing all the administrative and functional aspects of hospital operations. It was taken up under State Health System Development Project (SHSDP) - II with financial assistance from World Bank. In 2004-05, M/s Semaphore Computers Pvt. Ltd. was awarded the work of development and implementation of the application and it was gradually implemented in all Government Hospitals down to the level[106] of State General Hospitals (SGH) with bed strength of 100 or more. The network of hospitals and patient loads are depicted in the chart below:



The application was developed using SQL Server 2000 as backend RDBMS with Visual Basic in the front end having a client server architecture. It has four main[107] modules *viz.*, Out Patient Department (OPD) Management System, In Patient Department (IPD) Management System, Charge Collection (CC) and Pay Clinic Charge Collection.

While HMIS primarily catered to patient data and collection of service charges, the Department introduced another application named Stores Management Information System (SMIS) developed by M/s PCS Technology Ltd. in April 2011, in order to manage drugs and equipment logistics. It was also to be implemented in all hospitals down to the level of State General Hospitals.

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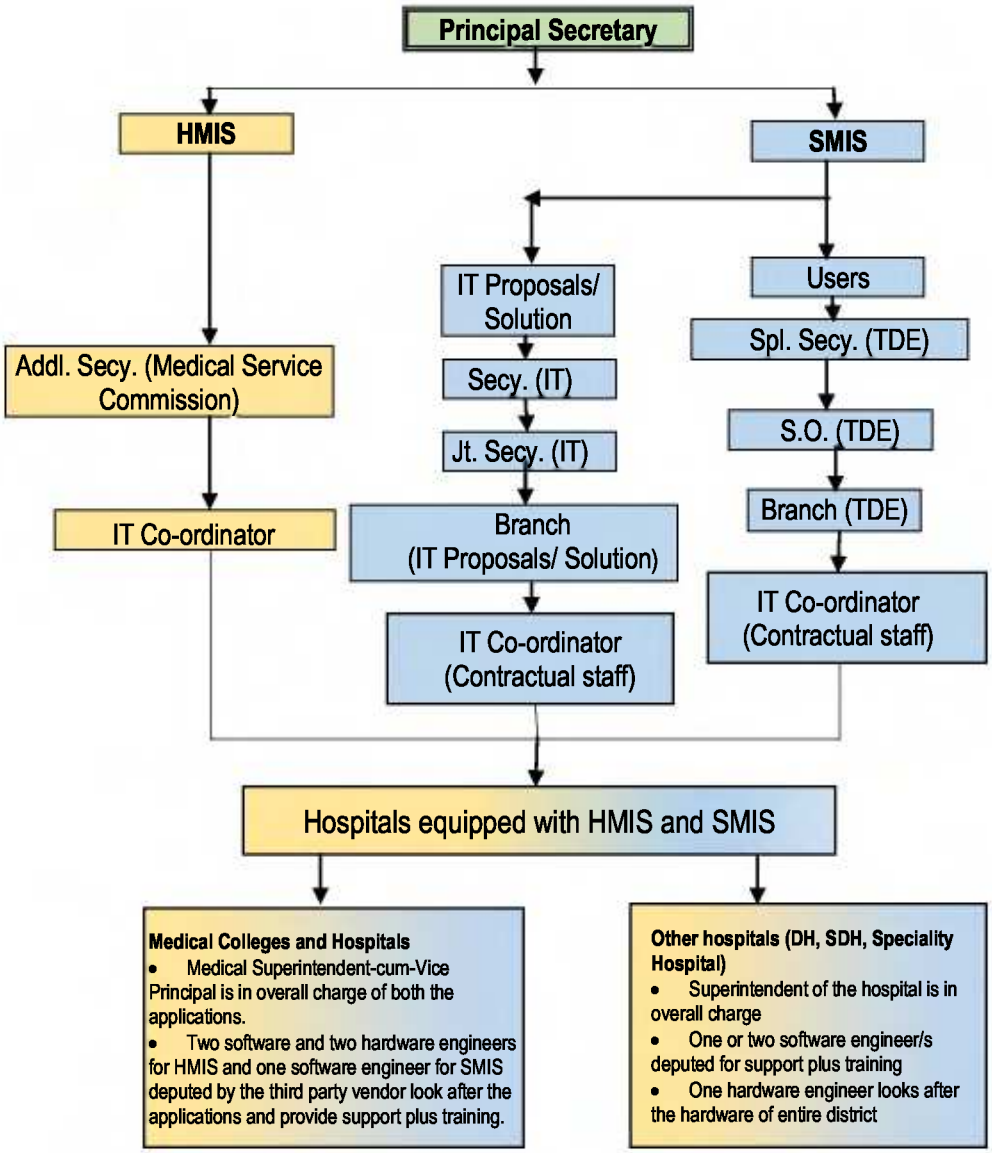
[106] *HMIS has been introduced in the levels of State General Hospitals (SGH), Sub-Divisional Hospitals (SDH), District Hospitals (DH), Medical Colleges and Hospitals (MCH), Speciality Hospitals and Super Speciality Hospitals. Levels not covered under HMIS included Block Primary Health Centres (BPHC), Primary Health Centres (PHC) and Sub-Centre (SC) being the lowest unit of healthcare system in the state*

[107] *Besides four main modules, there were two more modules namely, Blood Bank and Pay Roll, which are no longer in use owing to introduction of other applications*

SMIS, a web-based application was developed using MS SQL Server 2000 in the back end and VB.net in the front end.

2.5.2 Organisational Structure

Director of Health Services under the Health & Family Welfare (H&FW) Department looks after the overall activities relating to HMIS assisted by Joint Secretary (IT), while the Special Secretary (Transport of Drugs & Equipment) is responsible for SMIS. While the Department was unable to plan proper level of hierarchy for operating HMIS, the Departmental hierarchy for operationalisation of SMIS has been chalked out as depicted below:



2.5.3 Audit Objective

The objectives of audit were to examine and assess whether

- HMIS and SMIS have been developed properly mapping the business rules
- Implementation of HMIS and SMIS has resulted in increasing functional efficiency.

- Adequate controls are in place to ensure confidentiality, integrity and availability of data.
- Whether proper measures have been taken to ensure continuity of operations.

2.5.4 Audit criteria

The criteria for framing audit comments were sourced from:

- Rules and provisions issued by the State Government in connection with the H&FW Department from time to time,
- Instructions issued by the Government of India and Government of West Bengal regarding various health Schemes (*viz.* NRHM, RSBY etc.)
- Instructions issued and rates adopted by the H&FW Department for various services provided in the hospitals,
- Best practices for a computerised system as spelt out in COBIT[108] .

2.5.5 Audit coverage, scope and methodology

The IT Audit of HMIS and SMIS was conducted between April and July 2014 covering the period 2009-14 (except for SMIS which was introduced in April 2011) through test-check of records/ data of the department and 22 hospitals ***(Appendix 2.5.1)***selected on the basis of stratified sampling. These 22 hospitals included four Medical Colleges and Hospitals (MCH) out of 13 in the State, three major hospitals (Speciality Hospital) out of nine, seven District Hospitals (DH) out of 21 and eight Sub-Divisional Hospitals (SDH) out of 38. Data was collected from each of the seventeen hospitals where HMIS was found running in DVDs after the same were authenticated by the authorities and data back-up of SMIS was centrally collected from the department. All these data were restored in SQL Server 2008 and analysed using IDEA 9.1 software.

An entry conference was held in April 2014 with the Principal Secretary, H&FW Department and other functionaries of the department wherein audit objectives, scope, criteria and methodology were discussed.

Findings of audit, conclusions and recommendations were discussed with the Department in an Exit conference held in December 2014. The department also communicated its formal replies to audit observations in January 2015, which have been duly incorporated at appropriate places.

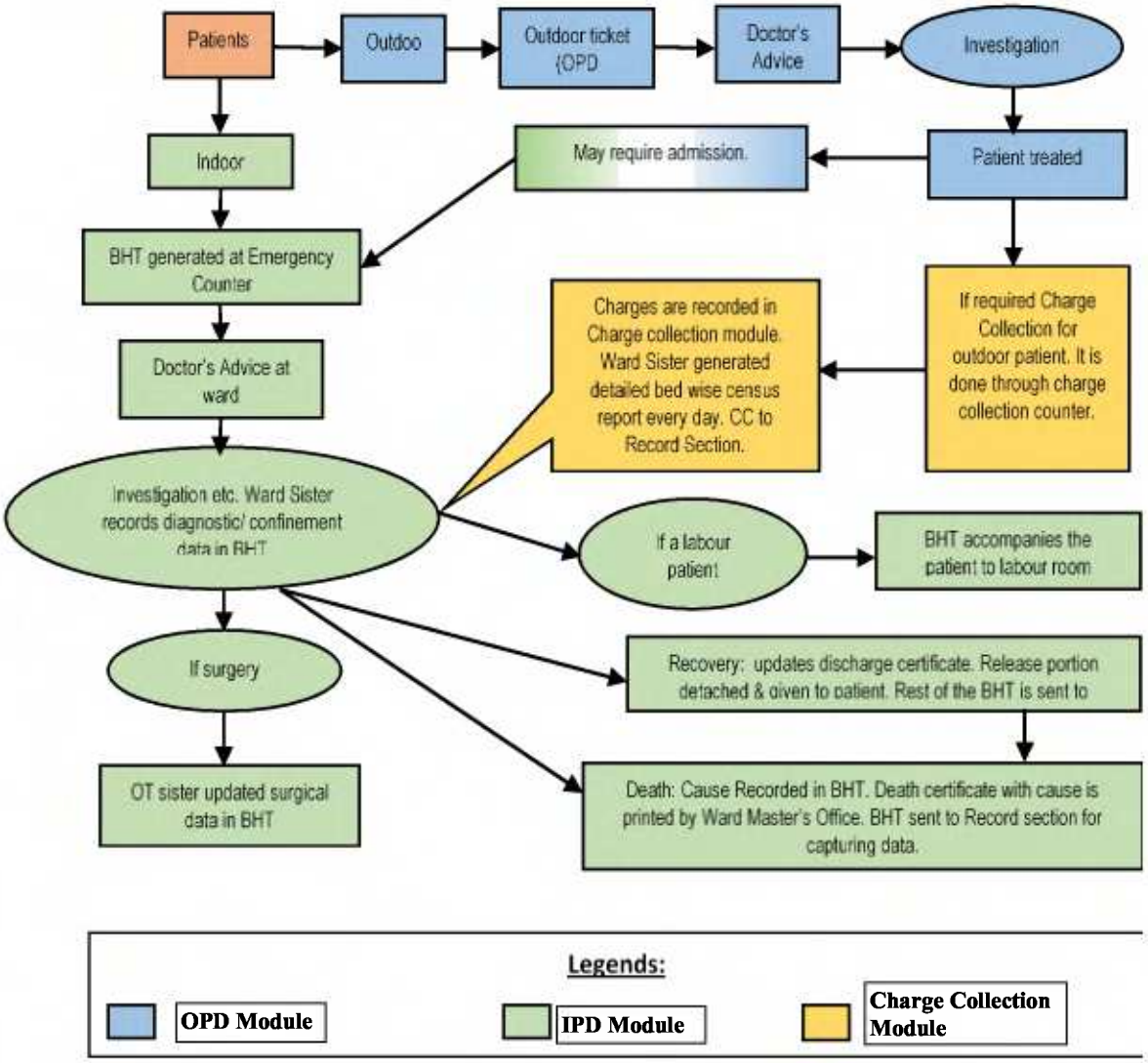
2.5.6 Process flow diagrams of HMIS and SMIS

2.5.6.1 Process flow of HMIS

As per system followed in Government hospitals, a patient gets registered for treatment by paying ₹ 2 and acquiring an OPD registration card. The doctor at OPD enters prescriptions on this OPD card. If the doctor recommends the patient to undergo any procedure/ test, the patient is directed to pay requisite charge through prescribed form to the cash collection center of the hospital. A form is also issued to the patient from the OPD which shows the type of test to

[108] *Control Objectives for Information and Related Technology (COBIT) is a framework supporting toolset that allows managers to bridge the gap between control requirements, technical issues and business risks*

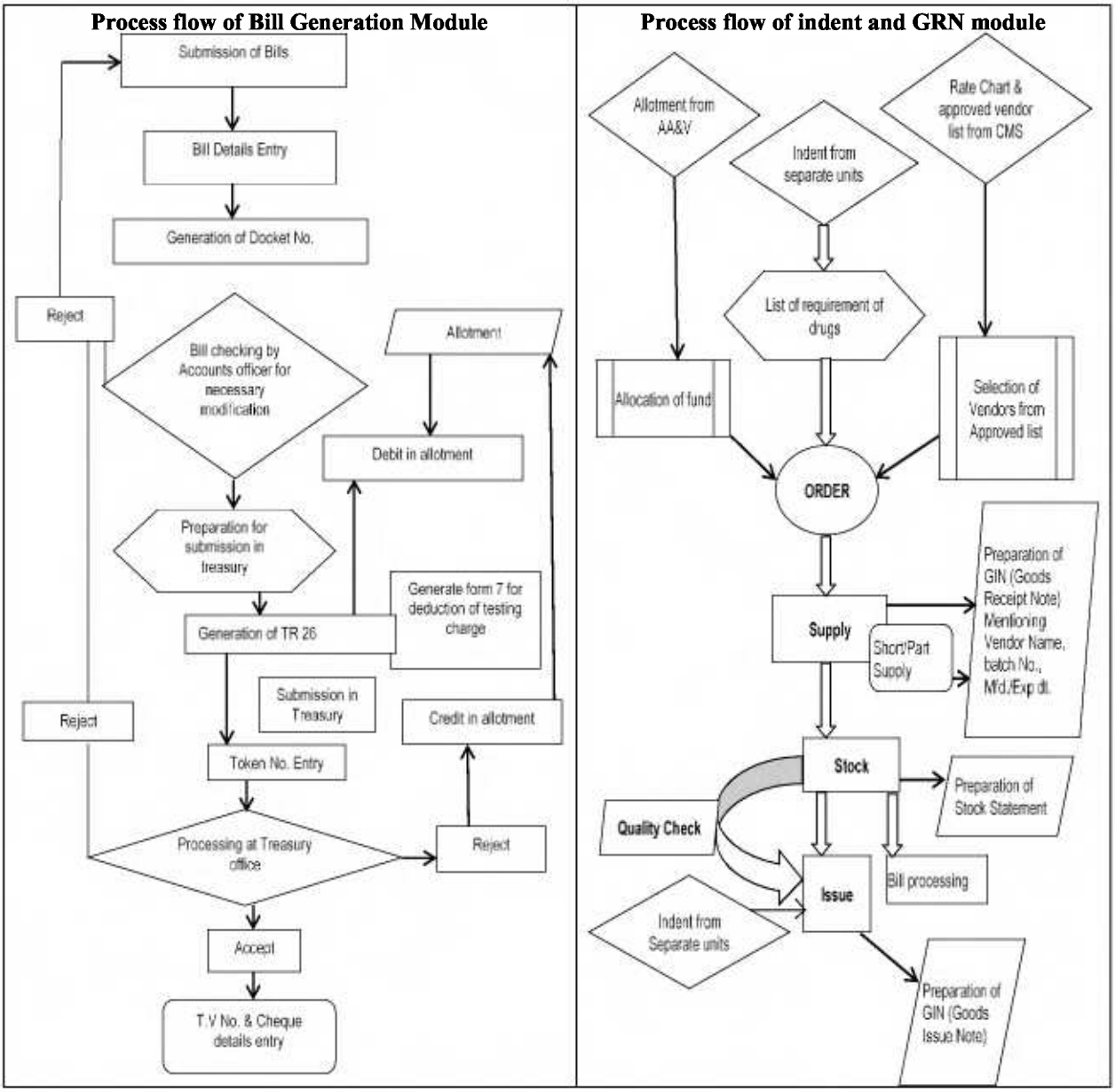
be conducted and amount to be paid apart from name and other details of the patient. On payment of requisite amount, a charge serial number is generated and a computerised money receipt is issued to the patient. In case multiple tests/ procedures are prescribed for a patient, all are booked under a single charge serial number, though multiple money receipts may be generated. Similar process of collection of charge is followed for in-patients also. The process flow diagram is depicted below:



2.5.6.2 Process flow of SMIS:

As regards SMIS, requirement of drugs, equipment and other hospital consumables (OHC) are received from various wards and departments of the hospitals in the Store. The compiled requirement of the hospital is then forwarded to the respective CMOH for allotment of funds and procurement of drugs, equipment and OHC for a particular period. Accordingly drugs (from DRS) and funds are provided to the hospital. The process flow of SMIS has been designed for indenting of requirements by respective wards and issue of the same from stores, as shown in the process flow diagram. Moreover, consumption of the issued drugs, equipment or OHC should also be entered into

the system by the end-users. The process flow is depicted in the following diagrams:



Audit Findings

2.5.7 Status of running of the systems

2.5.7.1 HMIS:

No centralised information on implementation schedule: HMIS aimed to computerise all hospital activities down to the level of State General Hospitals. However, neither was any centralised information on target date for HMIS Project development on record nor was any stage-wise schedule of implementation of the application available.

Deficient training: Though the Department had chalked out training program for its staff to operationalise HMIS, the same was not followed up

properly. The department also accepted (January 2015) that dearth of trained manpower was a factor behind under-performance of the applications.

Non-running/ partial running of the application: Absence of stage-wise implementation schedule coupled with insufficient training to the staff and non-implementation of various sub-modules had adversely affected introduction of HMIS, as would be evident from the fact that out of 22 test-checked hospitals, HMIS was not running in four[109] (18 *per cent*) though all these hospitals had bed strength of 100 or more[110]. Out of these four hospitals, in three, the application is yet to be introduced. In the remaining one hospital (Haldia SDH with bed strength of 300), though the Emergency sub-module under IPD module of the application was initially introduced in 2004-05, it was discontinued after a few months of operation.

Non-functional modules: Moreover, more than half of the total 24 sub-modules under three main modules of HMIS, *viz.* OPD, IPD and Charge collection were found to be non-functional in eleven test-checked hospitals whereas one module, namely Pay Clinic Module were seen operational in only two out of eighteen test-checked hospitals where HMIS were running (***Appendix 2.5.2***). The hospital authorities attributed (July 2014) this to shortage of hardware and skilled manpower.

Effects of non-functioning/ partial functioning of modules: As all the modules and sub-modules were not being utilised, details of the admitted patient in respect of their diagnosis, medications, diets, diagnostic tests, etc. prescribed for a patient, movement of patients from/ to different wards, discharge, death, deployment of personnel, etc. were not available in the system. As a result, the department was not in a position to get vital information like total vacancy of bed in IPD in a hospital on a particular day, total discharge/ death, bed occupancy rate, disease cycle, etc. from the system. The citizens were also deprived of benefits of vacant beds, better managed hospital services etc.

The department admitted (January 2015) that insufficiency of computer literate persons was a factor attributable to this and stated that the existing staff could not be persuaded to run the system in most hospitals.

2.5.7.2 SMIS:

Status of introduction vis-à-vis target: SMIS was to be introduced in all hospitals down to the level of SGHs. However, it was noticed that, SMIS could not be introduced in six[111] out of 22 test-checked hospitals due to absence of connectivity, non-deployment of skilled manpower and non-assignment of user id/ password.

Absence of computer terminals in wards restricting implementation: Test-check also revealed that in none of the 22 sampled hospitals could department provide computer terminals and internet connection in wards so that indenting of stores would originate from wards/ concerned departments. Consequently, in all the test-checked hospitals, indents and issues from/ to various wards and

[109] *Baruipur, Raghunathpur, Haldia and Chanchal SDHs*
[110] *Bed strength: Baruipur Hospital-160, Raghunathpur Hospital – 150 and Chanchal Hospital - 100*
[111] *Regional Institute of Ophthalmology Kolkata, Gangarampur SDH, Kalimpong SDH, Chanchal SDH, Baruipur SDH and Bolpur SDH.*

departments are entered consolidating the indents/ issues for a period of time utilising 'Issue Clearance' facility in the system so as to equate the stock balance in system with the manual store ledger.

Bill payment facility not being utilised: Moreover, in nine[112] hospitals, bill payment facility was not utilised even after 39 months of implementation of the application for reasons neither on record nor intimated when called for.

Thus, the Department was unable to implement the system fully to computerise the store operations. Only indenting from District Reserve Stores (DRS) and issue clearance were being done through SMIS by the hospitals but other modules like indenting, issuing of stores articles, maintenance of stores ledger, budgeting, requirement analysis and generation of bills through TR 26 for payment to medicine suppliers were not used by the hospitals audited.

Various issues of deficient utilisation/ non-utilisation of application modules and dilution of IT security controls giving rise to instances not only of lacunae in the data base but also cases of suspected pilferage of hospital receipts were observed in audit which are discussed in the subsequent paragraphs.

2.5.8 Non-routing of transactions through application

2.5.8.1 HMIS

Having been developed to encompass all hospital related activities in a computerised environment, HMIS necessitated entry of all data relating to patients into the system to generate reliable reports on hospital activities. Audit, however, noticed instances of transactions not being fed into the system rendering the data captured by the system unreliable.

- ***Hospital collections not routing through HMIS:*** Out of 18 test-checked hospitals (where HMIS was running), in eleven, collections of various charges were made through general money receipts without routing them through HMIS. The department attributed (January 2015) the same to absence of trained manpower, but stated that the problem would be addressed in near future by gradual increase of trained manpower.
- ***Non-capturing of data of free patients:*** In the State, certain categories of patients are eligible for treatment free of charge. Despite the system having provisions for entering this data, none of the 18 test-checked hospitals captured data on free patients in the system. The hospital authorities either expressed their ignorance of the provision or attributed non-capturing of relevant data to dearth of manpower. The department also did not give any directives to capture such data. Thus, captured data was not complete.

Irregular exemption of charges: In this connection it was seen that though no exemption of charges for various services was to be allowed to the patients unless they belonged to the BPL category, analysis of data revealed that in eight hospitals, ₹ 92.36 lakh was exempted to patients not belonging to BPL category in 46672 cases. Such cases revealed that proper validation controls were not existent in the system which has resulted in loss of hospital receipts.

[112] *BC Roy Post Graduate Institute of Paediatric Science, Regional Institute of Ophthalmology, Purulia Deben Mahato DH, Raiganj DH, Barasat DH, Asansol DH, Bolpur SDH, Arambag SDH and Haldia SDH.*

Thus, partial automation of charge collection coupled with deficient capturing of relevant data has made it difficult to vouchsafe veracity of amounts shown to have been received as hospital revenue leaving substantial scope of malpractice.

2.5.8.2 SMIS

Procurement operation by-passing SMIS: Drugs not available with the hospital stores can be procured locally. These medicines are to be entered into SMIS through Goods Received Notes (GRN) module or 'Purchase through Fair Price Shop Entry' before issuing to indenting units. The department also mandated (March 2012) the use of SMIS for procurement and distribution of drugs, equipment and other consumables, without which all procurement would be treated as suspected defalcation of Government funds. Inspite of such stipulation none of the 16 test-checked hospitals where SMIS was running, followed the same. Though the department had further stipulated (March 2012) that non-use of SMIS would invite stopping of allotment of funds to hospitals for procurement from the second quarter of Financial Year 2012-13, no such measure was resorted to. Thus, due to lack of monitoring by the Department, the application had not been running meaningfully.

Security and adequacy of controls

IT controls in a computer system represent policies and procedures that ensure the protection of the entity's assets and accuracy and reliability of its records. Access to an IT system is twofold. The first is physical access where an individual could come in physical contact with the IT assets. The other is logical access which represents access to the application/ data by individuals using user-ids and passwords.

2.5.9 Logical access controls

Necessity of password policy and hierarchical access privileges: As per the contract between the Department and the vendor, the maintenance personnel was supposed to provide only hand held support and impart training to the departmental officials in running HMIS and SMIS smoothly. Though there was clause of confidentiality[113] in the contract, the support personnel were not supposed either to enjoy independent/ unrestricted access to the applications/ data base or to create user ids without written permission from the competent authority. They should not know the passwords of various users either. This calls for clear password policy and hierarchical access privileges among the users of the system spelt out by the Department.

However, various system deficiencies like, absence of password policy, privileges of system administrator[114] with vendor personnel, inadequate access and validation controls, absence of antivirus, etc. were noticed, which jeopardised the security of the system as explained in the subsequent paras:

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[113] *The clause inter alia stipulated*

- *All knowledge and information which are not supposed to be hosted in the public domain should be treated as confidential*
- *The information relating to the systems should be disclosed by the third party to its officials strictly in a "need-to-know" basis*

[114] *A system administrator is a user of a computer system with special privileges needed to administer and maintain the system.*

2.5.9.1 Password policy

Absence of password policy and mapping of privileges: Scrutiny revealed that the Department did not have a well documented password policy in vogue to prevent any unauthorised access to the system. Though it was expected that every user would be assigned certain level of privilege as per designation beyond which, he cannot access any part of the system, scrutiny revealed that this mapping of privilege was not well defined.

Privilege of system administrator (super-user) enjoyed by support personnel: The third party service provider was only meant to provide hand holding support and training as per the agreement with the department. It was observed that both in cases of HMIS and SMIS, the third party support personnel had complete access to the system not only with their own ids but also using hospitals' staff ids as discussed below:

HMIS: ***Outsourced agency enjoying un-restricted access in the absence of privilege policy:*** Out of 18 test-checked hospitals where HMIS was operational, in 10, the outsourced agency in charge of the maintenance had full access to the administrative password without any documented privilege policy. This assumes significance in view of several instances observed by audit where the system was deliberately modified leading to pilferage of hospital receipts.

Instances of duplicate user id and ghost user id: Analysis of data revealed that in the aforesaid eight hospitals there existed 21 duplicate user id (varying from two to five user id) against one user and in eight[115] cases, there existed ghost user id (no user id assigned but the user entered into the system for data entry/update). The system also allowed the character of space as user id (which should, ideally be of minimum eight characters) due to lack of validation control.

SMIS: ***No departmental directive on confidentiality of passwords:*** Under SMIS, all store purchase related activities like placing of order, receipt of items, generation of bill, quality checking etc. are to be processed through the system, necessitating several levels of administrative involvement/ check, including confidentiality of every user's password. The department had also not issued any directive in this regard.

Vulnerability of the system from weak user access control: Due to inadequate privilege mapping, it was observed that a Store keeper who was in charge of equipment in any hospital could execute the function of the Store keeper in charge of drugs through the system. This made the system vulnerable to misuse or manipulation. Thus, the system lacked user access control.

Non-encryption of passwords of hospital officials: Scrutiny of data revealed that out of total 2394 users created for using SMIS, as many as 934 users had not accessed their account. Moreover, data analysis revealed that the passwords of the users of the private vendors who developed and are maintaining the application were encrypted but those

[115] *Seth Sukhlal Karnani Memorial MCH, Calcutta MCH, Darjeeling DH, Hooghly DH, Raiganj DH, Lady Dufferin Victoria Hospital, Barasat DH and RIO.*

of the departmental staff were not encrypted thus making the application extremely vulnerable to external unauthorised access due to use of selective encryption. It was also noticed that, the entire application was hacked in March 2013 and the department had to temporarily shut the application for three days. Thus lack of access control policy rendered the application extremely vulnerable to external threat of hacking.

Thus, privilege of super-user is being enjoyed by the personnel of the firm maintaining the hardware/ software. They can enter, modify, commit and save any data compromising the data integrity.

The department, in its reply, stated (January 2015) that it had since implemented an interim password policy for modified on-line HMIS. It was further intimated that a more streamlined password policy with multi-level checks was being developed. Regarding undue privilege enjoyed by the support personnel, the department stated that administrative passwords were handed over to the support personnel as administrative heads did not find time to handle the system and there was no regular hospital employee who could be made accountable and available round the clock.

2.5.9.2 Impact of deficient controls in logical access

Generation of registration number: Patient Registration Number was a system generated number assigned to each patient entering in a hospital for any kind of treatment in OPD or IPD. A patient can be tracked in the system through this number. The number is unique in nature and any gap in the serial number might have indicated loophole in the system. For OPD purpose, a patient needed to deposit ₹ 2 irrespective of their status of being BPL or not and a system generated blank prescription with OPD number and Registration number was printed and handed over to each patient. In case of emergency/ IPD admission, a system generated Bed–head ticket was generated before admitting the patient.

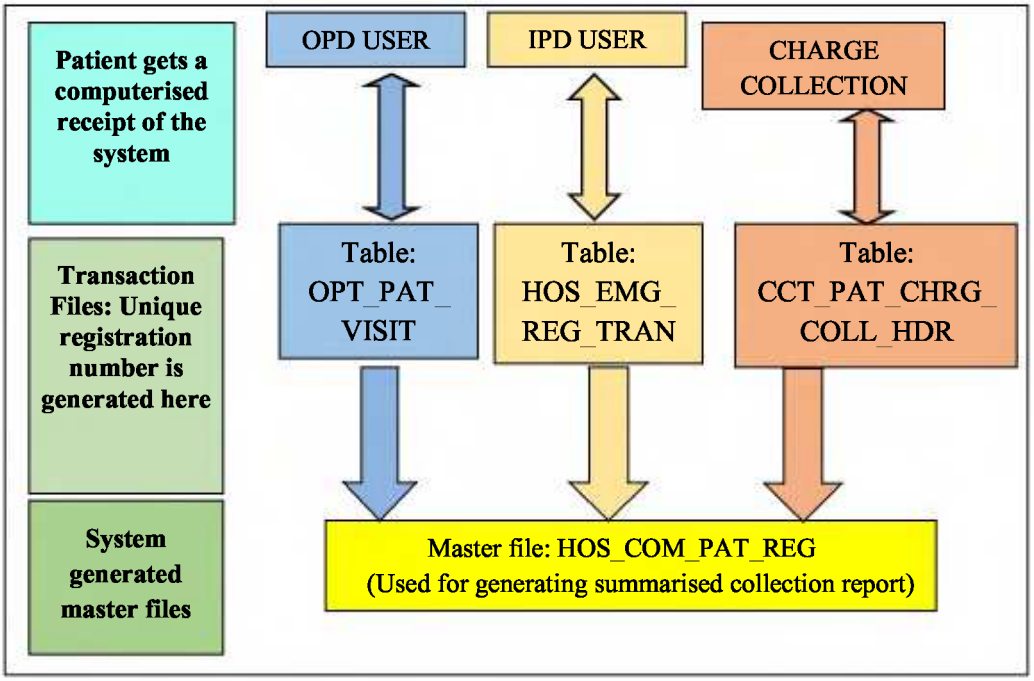
- ***Duplication of registration numbers:*** However, analysis of data relating to IPD and OPD module revealed that in 18 hospitals, in 74215 cases, same Registration number were issued to different OPD patients indicating not only flaws in database design but also possibility of pilferage of hospital receipts.
- ***Multiple registration numbers generated against a single patient:*** In North Bengal MCH, there existed more than one registration number against a particular patient on a particular day for collection of hospital charges viz. x-ray charges, OT charges etc. Analysis of the data revealed instances of multiple registration numbers being generated against a single patient on a single day indicating flaw in the database designing. Data analysis showed 76273 registration numbers so generated against 31749 patients with two to nine registration numbers against each of them. Possibility of intentional tampering of the database by accessing administrative password could not be ruled out.
- ***Stop-gap arrangement of server without knowledge of system administrator:*** In North Bengal MCH, on comparing the HMIS data for the period from June to August 2013 with relevant manual documents *viz*., cash book, IPD patient registers, departmental registers etc., it was seen that there

was no data in the server for the period from 18June 2013 to 16July 2013. It transpired that due to faults in the server during the period, the third party support personnel ran HMIS through a stop-gap server by temporarily configuring another PC as a server. However, no data back-up was taken during the temporary arrangement. The MSVP expressed ignorance of the fact. This also pointed to the fact that a very sensitive function like revenue collection was being managed without the supervision of the MSVP. Given the fact that as compared to revenue collected in August 2013 fully through HMIS module, collection figures of June 2013 (manual collection for 11 days) and July 2013 (manual collection for 14 days) fell short by 39 *per cent* and 63 *per cent* respectively, absence of back up data assumed seriousness. Scrutiny further revealed similar instances in NBMCH when system remained shut down in seven different spells ranging from 15 days to 151 days.

- ***Numeric gaps in registration numbers indicating manipulation in master table by support personnel:*** Scrutiny of data of Bolpur SDH pertaining to 69 working days from 2 May 2014 to 21 July 2014 revealed that on ten days, there were numeric gaps varying from one to 602 in patient registration number. Further enquiry revealed that when the system was down, the hospital switched over to manual OPD tickets. In order to keep continuity in numbers, the third party support personnel edited the master tables from the backend by increasing the OPD ticket serial number. This was, however, done without the knowledge of the hospital Superintendent indicating violation of logical access control to the data table.

2.5.9.3 Process of entry and storage of patient data

HMIS was designed to record all patient activities inside hospitals. The process flow diagram of entry and storage of patient data is depicted below:



Registration number is generated by the system either from OPD module or from IPD (Emergency) module or from Charge collection module (when a patient is issued manual OPD ticket due to system failure and then proceed for

any service at Charge collection counter). Data thus entered into the system is automatically stored in one of the three transaction tables[116] attached to these modules. All these data finally get stored in a Master file. Thus, total number of registration numbers generated in the aforesaid three transaction tables must reconcile with that stored in the master file.

At the end of the transaction hours, each user generates a summarised collection report from the system using master table and deposits the amount in Cash Section.

Mismatch between transaction tables and master tables: Analysis of the aforesaid four tables in respect of 17 test-checked hospitals (excepting Bishnupur SDH, where the charge collection module has been discontinued) revealed that

- There was no mismatch of records of the tables in respect of Kalimpong SDH and Gangarampur SDH;
- In the remaining fifteen hospitals, master table contained 77263 less number of registration numbers as compared to those recorded in the transaction files. Number of such registration numbers missing from the master file in each hospital ranged from five (in Bolpur SDH) to 69103 (NBMCH).

Such mismatch in records is indicative of possibilities like

- Either the data was wilfully deleted from the master table or
- the master table was temporarily delinked from the transaction tables

2.5.9.4 Possibility of pilferage of revenue through missing registration numbers

Given the fact that the missing registration numbers accounted for total revenue of ₹ 92.92 lakh and there was no supervisory check on collection amount deposited to the cashier, the matter assumes seriousness. This may further be viewed with the fact that in absence of any logical access control policy for access to the data table, the administrative privilege was being enjoyed by the lower level of maintenance personnel deputed by the third party maintenance agency.

Though this *prima facie* indicated unauthorised access to the system, the Superintendents were unable to explain the reason for users accessing the system beyond hospital hours. They attributed the same to system failure.

The reply was not tenable as it evidenced lack of physical access control in the system and might even point to attempts for unauthorised and intentional entry in the backend software. Further, instances of non-logging out indicated that access security was compromised exposing it to the risk of unauthorised access.

[116] *Table names being OPT_PAT_VISIT for OPD or HOS_EMG_REG_TRAN for IPD and CCT_PAT_CHRG_COLL_HDR for Charge Collection*

2.5.10 Supervisory control

Audit came across several instances pointing to deficient supervisory controls which could potentially affect the reliability of the data being captured and maintained in the system. These have been indicated below:

2.5.10.1 Control over refund of hospital charges: In hospitals where HMIS was running, any refund to be made to a patient should also be done through the system. Normally, patients, who had earlier been referred for some clinical investigation or operation and later advised not to do the same, would be allowed the refund in full provided they claimed the refund with copy of the advice after approval of higher authority in the hospital. Since refund of government money is sensitive in nature, proper checking should have been in place to validate and authenticate such refund. It was, however, seen that different hospitals followed different system of refunds. While in 13 hospitals, refunds were recorded both in manual and electronic records, in five, refund was found to be done manually only and no records of such refund were entered in the application.

2.5.10.2 Irregular handling of refund cases: In one hospital (Kalimpong SDH), it was observed that refunds were made by taking back the system generated charge collection receipts from patients and the same charge collection receipts were re-issued to other patients having advice for same clinical test just by changing the name on the receipt without any approval of the hospital authority. Thus, part of the collection was not being captured in the system. Moreover, there was a high chance of defalcation as these refunds are not getting reflected anywhere.

2.5.10.3 Control over printing of receipts: As charge collection receipts represent revenue, adequate controls are essential to ensure that duplicate receipts are not issued and resultant leakage of government revenue is avoided. Thus, the system should have ample control over the printing of receipts, serialising the receipts by generating system number and number of copies be restricted to one only at user level. Accordingly, system should have generated and printed only one copy of receipt against any charge collection.

In HMIS, however, any number of copies of receipts can be printed against a given charge collection.

2.5.10.4 Misutilisation of pre-printed receipts: Taking advantage of this lacuna, in one test-checked hospital (SSKM MCH), charges were collected manually against this pre-printed receipt without routing the collection through the system indicating chances of defalcation of government revenue. This came to notice of the hospital authorities in February 2012 consequent upon a complaint received from one patient. It was found that receipt issued against one patient was re-issued against the complainant after manually deleting the patient's name and adding the latter's name. Analysis of database design showed that the application was designed to restrict print of receipts to a pre-defined number but since the same was not mapped properly in the application, the same could not be applied in this case.

Thus, there was vulnerability to government receipts taking advantage of the loop hole in the system.

2.5.10.5 Control over amounts deposited to Cashier: Hospital revenue collected from various points of collection in the hospital is to be deposited to the Cash section at the end of the day for entry in cash book and further remittance to government account. In support of the amount of collection, the collecting personnel have to produce a system generated collection summary while depositing the amount to the cash section. The cashier should have another set of system generated MIS report of daily collection statement which should match that deposited by the users. Any mismatch in these two system generated report should be reported to and checked by authority to do away with possibility of fraud.

2.5.10.6 Systemic observations on deposit of collection to cashiers in test-checked hospitals: This aspect was put to audit verification in three medical colleges and hospitals (namely Calcutta National Medical College & Hospital, NRS Medical College & Hospital and North Bengal Medical College & Hospital) in Kolkata, apart from the test-checked ones and the following was observed

- ***Inherent system deficiency in deposit of collection:*** At the end of each day's transactions, the cash collecting officials deposit the collected cash to the cashier alongwith a computer generated user-wise and date-wise collection summary. The collection summary[117] does not contain the details of procedure for which charge was collected. The cashier enters the amount as per the collection summary in cashbook and remits it to Government account without any cross-checking from the system.
- ***Absence of cross-checking of amounts deposited:*** In the remaining test-checked hospitals, there was no system of cross checking the amount collected and the amount deposited by the various collection point users as there was no terminal of HMIS available with either the Accounts Officer or the Assistant Superintendent or the Cashier. Therefore, there was no compensatory control and this left the system vulnerable to revenue leakage. The authorities were not fully cognizant of such discrepancies. This pointed to lack of supervisory control over revenue collection.

2.5.10.7 Instances of manipulation of database facilitated by the control weaknesses

The systems of collection of revenue, issue of receipts and depositing of the receipts with cashiers in respect of some high value procedures/ tests[118] in two medical colleges and hospitals (namely Calcutta National Medical College &Hospital and NRS Medical College) were subjected to audit verification which threw light on various control weaknesses, lack of transparency as follows:

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[117] *Collection summary contains patient referring point (OPD/ IPD), collection bill number, patient ID, patient serial number, name, amounts received/ refunded etc.*

[118] *Calcutta National MC&H: Extra Corporal Shock Wave Lithotripsy (ESWL) (₹6000 per test) done in Urology Department; NRS MC&H: ESWL (₹6000 per test) and Urodynamic study test (₹500) done in the Urology Department; Percutaneous Transluminal Coronary Angioplasty* (PTCA) (₹ *2000 per test) and Balloon Mitral Valvuloplasty (BMV) (₹1000 per test) both carried out at Cardiology Department; North Bengal MC&H: CT Thorax(₹1500 per test) and CT Scan (₹800 per test) done in CT Scan Department.*

- ***Manipulation of data leading to under recovery of government revenue:*** There were discrepancies in amount to be collected and amount actually shown as collected indicating short collection of revenue and possible manipulation of data:

Table 2.5.1: Instances of mismatch between HMIS database and records of hospital departments

Name of the hospital	Name of test	Period	Number of test conducted				Number of tests not traceable in database	Short collection of revenue
			as per concerned department	Amount to be collected	Collection database of HMIS	Amount actually collected		
Calcutta National MCH	ESWL@ 6000 per test done by Urology Department	January 2007 and September 2013	1708	₹ 102.48 lakh	920	₹ 55.15 lakh	788	47.28 lakh
NRS MCH		October 2011 onwards	62	₹ 6.32 lakh @ ₹ 6000 per test	62	₹ 3.42 lakh	--	₹ 0.30 lakh[119]
	PTCA (₹ 2000 per test) done by Cardiology	January 2012 and September 2013	605	₹ 12.10 lakh	584	₹ 11.68 lakh	21	₹ 0.42 lakh
	BMV (₹ 1000 per test) done by Cardiology		78	₹ 0.78 lakh	64	₹ 0.64lakh	14	₹ 0.14 lakh

Source: records of respective hospitals

- ***Tampering of master database deleting data:*** Data analysis further revealed that, master databases were tampered in Calcutta National MCH by deleting records relating to charge collection from patients as evident from the fact that records of 3485 cases of charge collection were untraceable in user login details master table.
- ***Mismatch of charge collection data:*** Analysis of data of CN MCH also revealed that in 38 cases during the period as stated above, amount paid as per charge collection master table differed from the amount paid as per user login details master table.

2.5.10.8 Control over creation of user id-s

- ***Multiple user id-s against single user*** In eight test-checked hospitals[120] there existed more than one username against each user under HMIS. This was attributed to a loophole in the software which did not permit the user to login again on the same calendar day if the computer gets shut down before the user could log out. Consequently, if the computer gets turned off due to reasons like power failure, users were provided with new user ids by the third party support personnel without the permission of the higher authority. Authorities were not fully cognizant about this problem.

[119] *In five cases of ESWL, against ₹30000 receivable, only ₹70 were deposited in account resulting in short deposit of ₹29930.*

[120] *Seth Sukhlal Karnani Memorial MCH, Calcutta National MCH, Asansol DH, Darjeeling DH, Hooghly DH, Raiganj DH, Purulia DH and B.C. Roy Hospital.*

2.5.11 Physical Access Control

2.5.11.1 Access to the system beyond working hours

In hospitals, OPD services are available from 9.00 AM to 2.00 PM. Accordingly, the OPD module of HMIS should have remained operational during this period only. However, in all test-checked hospitals analysis of data for the period from June to August 2013 revealed that there were numerous instances of system being logged-in/ logged-out before/ beyond functional hours of OPD. Analysis of data revealed that in around ten *per cent* of total user login cases, there was no logout time captured in the database.

2.5.11.2 Access to server and client PCs

No restrictions on external memory: Audit observed that the department had not framed any policy for by its staff or the third party service providers to restrict access to servers and client PCs by pen drive, HDD, external drive etc.

USB ports not deactivated exposing the system to risks: Test-check showed that the USB ports of servers and clients in any test-checked hospitals were not blocked. Consequently possibility of obtaining unauthorised and sensitive data or attack of malware through USB drives and other external devices cannot be ruled out.

Hard disk removed without knowledge of system administrator: In Arambagh SDH, the hard disk of the computer server crashed in November 2013. It transpired that the hardware engineer of the third party firm had taken out the hard disk for data retrieval without the knowledge of Superintendent. This indicated that the third party personnel worked on their own volition without seeking necessary permission from the Superintendent, who was the system administrator. This compromised security of the system.

The department stated (January 2015) that physical access to and control over data base would be withdrawn from the support staff as soon as on-line HMIS is implemented.

2.5.12 Application control

2.5.12.1 Deliberate entry of wrong data to circumvent application deficiency: Instances were noticed where data integrity of SMIS was sacrificed to circumvent the application deficiencies which in turn compromised effective management of stores.

2.5.12.2 Entry of medicines with incorrect expiry dates/ batch numbers

- There existed no validation rule in the SMIS for entering the shelf life of a medicine purchased through the application. As a result, in 20 cases, expiry dates of medicine/ equipment preceded the respective manufacturing dates. In eight cases, the manufacturing dates and expiry dates were same.
- On the other hand, in case of 260 medicines, it was observed that the shelf life was shown to be more than 100 years.
- Moreover, items not having batch number[121] could not be entered into the system though the application had provisions for entry of these items.

[121] *viz. Jute Swab, Cotton Swab , Bed Sheet, Draw Sheet etc.*

Consequently, these items were taken into the system by giving a junk batch number or by numerically entering zero.

Thus, due to faulty logic embedded into the system designing left the application less dependable when it came to the shelf-life of medicines.

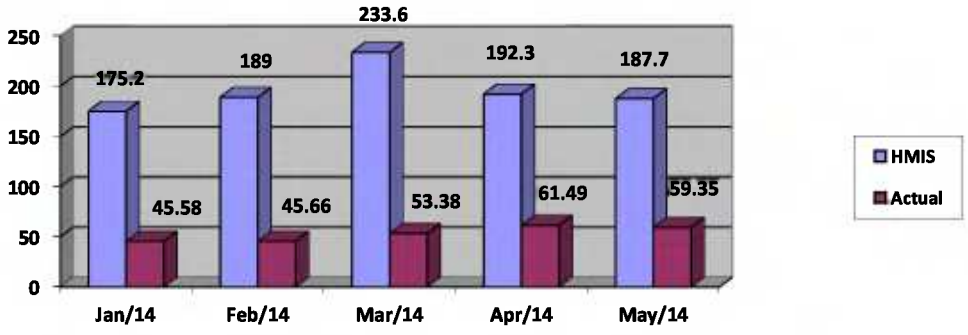
The department stated (January 2015) that the issue has already been resolved by separating Good receipt Notes (GRN) of drugs and equipment.

2.5.12.3 Faulty calculation by the system: The application had a system of Goods receipts notes (GRN) where the hospital authorities were supposed to enter all data relating to the procured medicines/ equipment including their rate and quantity. There was also a column for calculating the total price of the medicines/ equipment. It was designed in that manner to initiate bills for payment to the suppliers. It was observed that in 108 cases, the system calculated the price of medicine/ equipment in excess of payable amount by ₹ 1622740. On the other hand, in 172 cases the system erroneously undercalculated amounts payable by ₹ 39453965.

2.5.13 Validation control

2.5.13.1 HMIS: The department is dependent on HMIS for calculation total out patients, total emergency admission, bed occupancy rate, etc. for incorporation in annual health report of the department which were extremely important for policy making of the health department. So there should be proper controls in place to ensure completeness and authenticity of the data captured. As data on hospital activities captured in the system were not complete (as already discussed), authenticity of reports generated using HMIS database was doubtful. Moreover, instance of system generating irrational figures was noticed.

Chart 7: Comparison of actual Bed Occupancy Rates with those generated by HMIS



Irrational data being generated by HMIS: In Kalimpong SDH, admission rate[122] calculated by the system (IPD module) ranged from 175 to 234 *per cent* during January 2014 to May 2014 though bed occupancy rate[123] during the same period was between 46 *per cent* and 62 *per cent* as shown in **Chart 7**.

[122] *Emergency admission rate = (Total number of patients admitted in the hospital from emergency during the month*100)/ (Number of patients attending emergency)*

[123] *Bed occupancy rate = (Total number of patient days in the hospital during the month*100)/ (Bed strength * number of days in the month)*

2.5.13.2 SMIS: Audit observed that SMIS was deficient in validation controls as would be clear from the following instances.

Incorrect balance position generated by the system: In National MCH and Asansol DH, discrepancies between closing balance and opening balance were observed. In National MCH, in case of 49 drugs, the opening balance of 1 April 2014 differed from actual stock. In 39 cases, the opening balance as on 1st April 2014 in the system was more than the closing balance in hand though no drugs were received and entered into the system during this period and in nine cases, there was decrease in the opening balance. In Asansol DH, stock of 39 items of drugs, the opening balance was more and in six cases, the stock was less. Thus, the stock position as indicated by the system was incorrect thereby indicating inadequate processing control.

SMIS was designed to make procurement of drugs only if there is adequate allotment of funds. The funds are allotted by the department and entry to this effect is also made from the department. When orders are placed for procurement by the hospitals, the value of orders gets deducted from the available balance. Once the funds are exhausted, the hospitals would not be allowed to make any further procurement. Scrutiny revealed that in Darjeeling DH, the system was unable to deduct the expenditures correctly when hospital made purchases.

Incorrect calculation of allotment position by SMIS: Analysis of transactions for the period from June 2013 to October 2013 revealed ten instances of incorrect deduction where the system wrongly calculated the available allotment after deducting order value from the total allotment as detailed in ***Appendix 2.5.3***.

It was also observed in one case that the system wrongly calculated not only the available balance but also the order value. The order value as calculated by the system did not match with the manual records. In place of order value of ₹ 23.40 lakh, system was showing ₹ 95.39 lakh.

It transpires that either the program language was wrongly designed to calculate available balance after deducting the order placed or the administrative privilege was tampered with to make intentional modification leaving scope for placing excess order.

Department stated (January 2015) that in the upcoming version of the HMIS, the validation control deficiencies would be rectified, while those of SMIS were being addressed

2.5.14 Other security issues

2.5.14.1 SMIS operating without security certificate

For security through use of encryption, any website needs to obtain a certificate from a trusted organisation. This will ensure that the site is protected against attackers who create malicious sites to gather information. It was seen that the website of SMIS lacked such security certificate. Absence of security certificate left the system, extremely vulnerable to hackers and malware attacks. Besides, whenever an attempt was made to enter the webpage, it showed a warning message stating that the page was potentially harmful to open.

Department stated that initiatives have been taken to get the SMIS application audited through third party security audit.

Operationalisation of the system without mandatory testing: oreover, the Department did not test the application with the Standardisation Testing and Quality Certification (STQC) of Department of Electronics and Information Technology (DEIT)[124] which was mandatory for any e-governance programme developed by Government agencies before making the application operational. Thus, not only did the system lack proper validation rules but also the Department failed to conform to extant rules of Government in introducing new software.

2.5.14.2 Lack of Antivirus

HMIS was developed to be operated in a LAN environment whereas SMIS was developed in a web-based platform. In order to safeguard the data relating to the application, the department should have chalked out very strong and secure antivirus policy. Moreover, there should have been proper firewall installed in all PCs used for operating SMIS and restrictions should have been in place on access to internet through earmarked computers. There should have existed well defined policy to restrict use of external storage devices. However, it was found during audit that the department had not issued such directives nor had it chalked out any security policy for safeguarding the data. In 11 hospitals out of 18 test-checked, there was no antivirus. Thus, due to absence of proper antivirus and system security policies, the entire system of SMIS and HMIS was vulnerable to unwanted intrusion and even loss of data.

2.5.14.3 Absence of audit trail and log

Audit trail is the evidence that demonstrates how a specific transaction was initiated, processed and summarised. Similarly, log files are used to record the actions of users and hence provide the system administrators and organisation management with a form of accountability. A system log can record who logged onto the system and what applications, data files or utilities they used whilst logged on. Thus, these facilities will aid the management to keep track of unauthorised access and amendment made in the system. It was seen that audit trail was available neither in HMIS nor in SMIS. Though log files were there in both the applications, those were not checked by the system administrators in cases of HMIS and log file relating to SMIS was wrongly designed without any column to capture log-out time thus compromising the security of the system.

2.5.14.4 Non-employability of the system for departmental oversight

One of the major objectives of HMIS was to collate and use hospital data for planning and monitoring of health care services. However, as the system was found running in individual hospitals through LAN without any system to feed data in a central server on a regular basis (either real time or periodically), it was not possible to monitor the activities centrally from the Department. Consequently, the department had to rely on manual reports sent from the

[124] *In order to provide state-of-the-art technology based quality assurance services to its valuable clients and to align with DEIT mandate-to focus on IT and e-governance sector, STQC is providing quality assurance and conformity assessment services in IT and e-Governance Sector since 1999. STQC supports Government of India's National e-Governance Plan (NeGP) for overall growth of e-governance within the country. STQC has developed e-Governance Conformity assessment and Quality Assurance framework.*

hospitals. Though the Department had earlier envisaged that the reports generated from the system would be utilised to take several management decisions including access of same data by the citizen like live status of vacant bed in any hospital, the same could not be achieved by the Department.

In contrast, SMIS was working through a central server located at the Departmental headquarters.

Department stated (January 2015) that the issue would be addressed in the online HMIS.

2.5.14.5 Competence of personnel

Though one software support personnel from the maintenance agency was posted at each hospital having functional SMIS and HMIS, it was observed that these personnel attached with test-checked hospitals had no operational knowledge of SMIS/ HMIS (in case of four[125] hospitals) or had been imparted with inadequate training (Haldia SDH) or no training (Asansol DH) in SMIS.

It is thus evident that there is a need for the department to be more vigilant on the quality of software support personnel posted by the support agency.

2.5.15 Business continuity

Business Continuity and Disaster Recovery Plan aims to ensure that an organisation is able to accomplish its mission and is able to process, retrieve and protect information maintained in the event of an interruption or disaster leading to temporary or permanent loss of computer facilities. This calls for well documented, tested and updated continuity and disaster recovery plans, regular back-up of systems software, financial applications and underlying data, etc. However, deficiencies in these areas were noticed in audit as discussed below.

2.5.15.1 Absence of Business Continuity and Disaster Recovery Plans

The department did not have any business continuity and recovery plan. As such capability of the department to resume its operations after an event of an interruption was doubtful.

Irregular data back-up in absence of policy: The department had not chalked out any well-defined back-up policy for HMIS. The back-up was found to have been taken in irregular intervals at the whim of the third party supporting staff. In test-checked hospitals, it was found that back-up of HMIS was taken in an interval varying from two days to five months while in Kalimpong Hospital, no data back-up was taken as third party support personnel did not know how to take a back-up in SQL Server. The last back up was taken in Kalimpong Hospital in September 2011.

Reduction of revenue not investigated in absence of data back up: Absence of data back-up assumed further seriousness from the instance of North Bengal MCH (*as already discussed in para 2.5.9.2)*, where another PC had to be configured as a temporary server due to occurrence of fault in the existing server. Substantial fall in collection of revenue during that period could not be sufficiently investigated into in the absence of data back-up during the

[125] *Personnel attached with Bishnupur, Haldia and Arambagh SDHs had no operational knowledge of both HMIS/ SMIS while the one posted to Asansol DH lacked operational knowledge of SMIS.*

temporary arrangement coupled with ignorance of the MSVP of the whole event.

Department, while admitting (January 2015) that the Disaster Recovery Plan could not be successfully implemented over distributed data base; stated that this would be automatically addressed once online centrally hosted HMIS is introduced. Regarding absence of data back-up it has been intimated that the Deputy Project Managers have been entrusted with administrative jobs and a Standard Operating Procedure is being prepared to bring uniformity across the state.

2.5.15.2 Non-utilisation of computer infrastructure in wards

With the introduction of HMIS, 19 out of the 22 test-checked hospitals were provided with LAN connectivity in OPD ticket counters, charge collection counters, Emergency admission points, all departments and wards. The respective staff was to capture data through these nodes. It was observed that in none of the 19 test-checked hospitals did such connectivity exist at the time of visit of the IT Audit team. Audit came across instances where the hubs, switches, UPSs, PCs, printers were found abandoned in a dilapidated condition. The hospital authorities agreed to the fact that the process of recording all information relating to HMIS in various departments, Wards and stores had not been done. This indicated that even after putting the infrastructure in place, continuity of operations was not ensured by the hospitals.

PC earmarked for running HMIS (May 2014) and switches and hubs (June 2014) were lying in dilapidated condition in North Bengal MCH

The department attributed (January 2015) the same to acute shortage of computer literate manpower at various levels of hospitals and added that initiatives have recently been taken to provide adequate computer literate manpower and impart functional computer training.

2.5.16 Conclusions

Thus, the desired benefits of improvement of the efficiency of delivery of health care services through introducing HMIS and SMIS remained largely unachieved as the department failed to operationalise these applications in all the intended hospitals. Even where these applications were running, all modules and sub-modules were not put to meaningful use. Instances of transactions not being captured in the system or wrong data being fed into the system to circumvent deficiencies have led to compromise in completeness and reliability of the database. The department could not do away with its dependence on manual data for monitoring, as HMIS was not a centralised system.

Security of the systems was compromised to a great extent owing to weak logical access controls, physical access controls and absence of password

policy. Lack of supervisory controls was also evident from the instances of manipulation in the system without knowledge of the hospital authorities. It was also a matter of concern that privilege of Super-User was being enjoyed by support personnel engaged by the maintenance vendor. Such deficient controls coupled with absence of security certificate, antivirus, audit trail and logs have rendered the system vulnerable to unauthorised intrusions. These vulnerabilities have resulted in possibility of defalcation of government revenue, as instances of unexplained short collection of revenue were observed in many occasions.

Ability of the department in continuing its operations in the event of an interruption remains questionable not only in the absence of business continuity and disaster recovery plans, but also in view of instances of non-maintenance of regular data back-up.

2.5.17 Recommendations

Audit recommends for consideration that

- ***The department switch over to a web-based platform integrating both HMIS and SMIS for better management, proper monitoring and overall control over the entire system.***
- ***The department ensure that all the modules in the applications are optimally utilised so that all hospital activities are computerised for efficient delivery of health care.***
- ***Comprehensive password mechanism with well-defined privilege policy be introduced immediately to ensure that the system captures and maintains complete and reliable data and to do away with possibilities of unauthorised manipulations in the system.***
- ***The department revamp the IT infrastructure in hospitals as well as formulate proper training programme in a planned and time bound manner to existing manpower for successful operation of HMIS and SMIS.***
- ***The department formulate a business continuity and disaster recovery plan and ensure its strict compliance so that it can smoothly resume its operations in the event of any interruption.***

During exit conference (December 2014), the Principal Secretary of the department, while accepting all the findings and comments of audit, assured to look into the matters and comply with the recommendations.