

# **Chapter II**

## **Compliance Audit**



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### Compliance Audit

#### NORTH BENGAL DEVELOPMENT DEPARTMENT

### 2.1 Infrastructure Development under North Bengal Development Department

#### 2.1.1 Introduction

The Development & Planning Department, Government of West Bengal (GoWB) constituted<sup>2</sup> (May 2000) Uttarbanga Unnayan Parshad (UUP) with the objective of comprehensive and integrated development of districts of North Bengal. Subsequently, notification<sup>3</sup> was issued (July 2011) for creation of North Bengal Development Department (NBDD) by subsuming all matters related to the UUP. The Socio Economic Perspective Plan (SEPP) for 2010-20 prepared by the erstwhile UUP to fill up the critical gaps identified in the region was to be a guiding document for taking up projects.

NBDD undertakes creation of various infrastructural assets which are handed over to various line Departments for operation and maintenance upon completion. During the period of Audit 2014-15 to 2018-19, NBDD executed 1,489 projects having an estimated value of ₹ 2,138.42 crore in the North Bengal Region (NBR). Out of the eight districts, two

districts *i.e.*, Jalpaiguri and Coochbehar were selected for detailed compliance audit. These districts were selected on the basis of outlay by NBDD and projects having higher money value. A total of 754 projects having an estimated cost of ₹ 979.05 crore were executed in these two districts during April 2014 to November 2018. Of these, 76 projects<sup>4</sup> having estimated cost of ₹ 467.67 crore across various types of projects<sup>5</sup> were selected for detailed scrutiny. Results of audit have been incorporated in the ensuing paragraphs.



<sup>2</sup> Resolution No. 1429/ DP/P-2C-10/2000 dated 18 May 2000 of Development & Planning Department, Government of West Bengal (GoWB).

<sup>3</sup> Notification No.198-Home (Cons)/R2R (Cons)-5/2011 dated 8 July 2011 of Home Department, GoWB.

<sup>4</sup> Ten per cent of 754 projects *i.e.* maximum number of projects implemented by the districts of Jalpaiguri and Coochbehar.

<sup>5</sup> Road, bridge, buildings, water, electrical and others.

## Audit findings

### 2.1.2 Planning

#### 2.1.2.1 Identification and addressing of Critical Gaps for integrated development of NBR

Certain critical regional gaps in physical infrastructure viz., deficit in rural housing, road connectivity and rural electrification, had been identified in the SEPP. It also identified critical gaps in social infrastructure, including schools and health facilities. Targets in the SEPP vis-à-vis works taken up by the Department against each of the critical sectors are detailed in the **Table 2.1**:

**Table 2.1: Targets set in the SEPP vis-à-vis works taken up by the Department (including that of UUP) between April 2010 and November 2018.**

Sl. No.	Sector	Critical gaps within sectors	Total Targets in SEPP	Achievements	Estimated Cost (₹ in crore)
			Units	Units	
1.	Physical Infrastructure	Road Connectivity (Km)	886	267 projects <sup>6</sup>	468.50
2.		Rural Housing (nos.)	7,51,333	192	6.17
3.		Rural Electrification (nos. of villages)	112	NIL	
4.		Agri Electrification (nos. of installation)	26,666		
5.		Home Electrification (nos.)	8,86,666		
6.	Social Infrastructure	New Primary School (nos.)	920		
7.		New Upper Primary School (nos.)	2,411		
8.		New Primary Health Centre (nos.)	96		
9.		New Health Sub-Centre (nos.)	1,055		
10.	Livelihood and Employment Scheme	General Agricultural Development (ha)	9,73,375		
11.		Irrigation Development (ha)	7,66,000	16 Projects <sup>7</sup>	47.58
12.		Crop Extension (ha)	5,65,625	NIL	
13.		Livelihood Extension (nos. of workers)	4,79,667		
14.		SSI Employment (nos.)	56,667		

(Source: from the records of the NBDD)

The extremely poor performance of NBDD may be judged by sheer statistics; out of 14 sub-sectors, prioritised under SEPP, no projects were taken up by NBDD in 11 of those sub-sectors in the two selected districts. Also, NBDD executed some other projects which were not in the SEPP.

#### 2.1.2.2 Absence of planning to ensure integrated development of North Bengal Region (NBR)

Before creation of NBDD, GoWB had assigned (2008) North Bengal University to prepare a Socio-Economic Perspective Plan (SEPP) (2010-2020) for the

<sup>6</sup> For upgradation of existing roads.

<sup>7</sup> Area in ha not available.

integrated development of NBR through UUP. In the SEPP, long and short term schemes were included (April 2010) after identifying critical gaps<sup>8</sup> in various sectors. Subsequently, in July 2011, NBDD was created subsuming all the functions of UUP. Further, NBDD was also to prepare a Master Plan for accelerated and integrated development of the area as per Rules of Business of NBDD, 2011. However, as of May 2019, NBDD had not prepared any Master Plan.

Audit found that in the districts selected for audit, NBDD implemented 754 projects valuing ₹ 979.05 crore during the audit period out of which 532 projects with estimated cost of ₹ 553.43 crore were executed without following the SEPP. In reply to audit query regarding basis of taking up the schemes, NBDD stated that all the schemes proposed by district authorities<sup>9</sup> were taken up on the presumption that those were included in the Annual Action Plan of the concerned districts. It was, however, stated (February 2019) by the District Planning Officer of one test checked district (Jalpaiguri) that the district did not prepare any Annual Action Plan. Moreover, it was observed that out of 118 infrastructural projects taken up for Jalpaiguri district during the year 2017-18, 12 projects<sup>10</sup> were proposed by the DM and 10 by the Minister-in-Charge. NBDD could not provide the basis for selection of the remaining 96 projects. Further, there was no mechanism in NBDD to see whether the proposals received from districts were in line with SEPP.

The Socio-Economic statistical data<sup>11</sup> of the two selected districts pertaining to the period 2010-2017 revealed that the critical gaps as identified in the SEPP remained unaddressed, particularly in the ‘social’ and ‘livelihood & employment sectors’ as discussed below:

#### ***Primary health infrastructure***

National norms<sup>12</sup> considered in the SEPP stipulated at least one Primary Health Centre (PHC) per 30,000 population and one Health Sub-Centre (HSC) per 5,000 population. Based on the Population Census 2011 and data made available by the Department, total required PHCs and HSCs in the two selected districts were 223 and 1,338; however, as of March 2017 these numbers were only 87 and 950, respectively. During the period under audit the NBDD did not create a single PHC or HSC.

#### ***Primary education***

Against the targeted increase in the number of primary and upper-primary schools of 920 and 2,411, respectively by 2020 in the SEPP, in Coochbehar and Jalpaiguri districts those were increased only by 36 (3,855 to 3,891) and 393 (160 to 553), during 2010 to 2018; no data was available from the

<sup>8</sup> *Physical infrastructure viz., deficit in rural housing, road connectivity, rural electrification and social infrastructure, including schools and health facilities. Besides, the SEPP highlighted the need to support livelihood development in several blocks where livelihood opportunities were critically constrained.*

<sup>9</sup> *District Magistrates, MLAs and MPs.*

<sup>10</sup> *Total 28 projects out of which 17 projects were clubbed together as single project.*

<sup>11</sup> *Bureau of Applied Economics and Statistics (August 2019) furnished data for 2010-2017.*

<sup>12</sup> *Indian Public Health Standards Guidelines for Primary Health Centres and Health Sub-Centres.*

Department for the period 2018-19 and 2019-20. However, fact remains that the slow pace of progress during 2010 to 2018 indicated that the targets could not be achieved by 2020 deadline. Although the number of schools had increased, it was observed that the number of primary schools per lakh of population was reduced from 60 to 54 in case of Jalpaiguri district and from 75 to 65 in case of Coochbehar district during 2010 to 2018.

### **Livelihood and Employment scheme**

In the SEPP, emphasis was laid on supporting livelihood development in the farm based and non-farm sectors in several blocks of North Bengal where livelihood opportunities were critically constrained. In Coochbehar district, livelihoods have traditionally been drawn from agriculture and allied primary activities such as fisheries. However, scrutiny of Statistical Handbooks of the Coochbehar district revealed that only 3,206.62 ha to 3,231.12 ha of water bodies was being utilised for pisciculture against the available area of 6,084.06 to 6,164.22 ha during the period 2013-14 to 2015-16. Director of Fisheries, Coochbehar proposed (August 2016) two pisciculture projects<sup>13</sup> to NBDD having an estimated value of ₹ 7.59 crore for employment and livelihood of 11,939 poor fishermen as well as enhancing fish production. However, as of August 2019, the projects were not taken up by NBDD. The reasons for not taking up of the projects were neither on record nor furnished by the Department. As a result, employment for the poor fishermen could neither be augmented nor the scope for increasing fish production availed.

In reply, NBDD stated (August 2019) that pisciculture interventions were not taken up due to limited resources and the same was expected to be taken up in future. The reply was not tenable as the projects were proposed in August 2016 and as per available records no action was taken for approval of the projects. The paucity of resources appears to be an afterthought.

### **2.1.3 Implementation of Road works**

Out of total 267 works for upgradation of roads executed in the two test checked districts, 18 works valuing ₹ 155.81 crore were examined in audit. It was observed that excess expenditure of ₹ 13.64 crore was incurred due to various reasons as detailed below:

#### **2.1.3.1 Non-compliance of IRC Guidelines in execution of roads with Bituminous Macadam<sup>14</sup> (BM)**

As per Indian Road Congress (IRC) Guidelines, for design of flexible pavement for low volume rural roads, total thickness of the pavement is to be determined on the basis of factors like the Estimated Standard Axle Load (ESAL) derived from traffic census, California Bearing Ratio (CBR)<sup>15</sup> of the sub grade, design life<sup>16</sup> and

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<sup>13</sup> (i) Eco-friendly management of pisciculture in beel/ baor through pen and cage culture.  
(ii) 25 number beel renovation.

<sup>14</sup> Road surface made of compressed layers of small broken stones, especially one that is bound together with tar or asphalt.

<sup>15</sup> CBR is a penetration test for evaluation of the mechanical strength of natural ground, subgrades and base courses beneath new carriageway construction.

<sup>16</sup> The design life of a road is defined in terms of years arrived at by considering the cumulative number of standard axles (vehicles) that can be carried.

the lane distribution factor<sup>17</sup>. No bituminous binder course is recommended for the rural roads with less traffic and having ESAL value less than 10 lakh. On scrutiny of the records of 14 test checked village road works, it was observed that:

In 12 village road works, Bituminous Macadam (BM) binder course was provided, in contravention of the IRC guidelines, which increased the cost of these roads by ₹ 12.48 crore. Audit noticed that out of these 12 works, in seven works<sup>18</sup> no traffic survey was conducted to assess the actual traffic flow to justify the additional expenditure of ₹ 5 crore. In the remaining five works<sup>19</sup> even though ESAL was less<sup>20</sup> than 10 lakh, BM binder course was provided at an extra cost of ₹ 7.48 crore. Thus, NBDD provided unwarranted item of BM course on low volume rural roads and incurred an excess expenditure of ₹ 12.48 crore.

In reply, NBDD stated (May 2019) that in seven works, BM was provided without conducting any traffic census on the direction of the higher authority and in case of five works, BM was laid due to inexperienced contractors engaged for the works. The reply was not tenable as the Department was required to fix the pavement design of the roads only after conducting a survey and contractors were to execute the works only as per the DPR.

### 2.1.3.2 Excess expenditure due to unnecessary widening of road having low traffic

IRC guidelines<sup>21</sup> provide for determining the width of carriageway on the basis of volume and composition of traffic. It further provides that if the projected Passenger Car Unit (PCU)<sup>22</sup> is less than 2,000, 3.75 m road width with one metre shoulder<sup>23</sup> is sufficient.



Chief Engineer (CE), NBDD sanctioned (September 2014) widening and improvement of one road work<sup>24</sup>, at an estimated cost of ₹ 11.77 crore. The scope of the work *inter alia* included widening of the road from 3.3 m to 5.5 m. The road work was completed in November 2016 at a cost of ₹ 11.76 crore.

Audit observed from the traffic survey conducted (May 2013) by NBDD that the PCU of the road was only 1413. Despite such low traffic, NBDD, without

<sup>17</sup> Distribution of traffic on the pavement.

<sup>18</sup> Bhanulumari Bholanath more to Paglarkuthi, Dhalpal-II GP office to Natabari Gadadhar Joist bridge, Damdim More at NH-31 to Paschim Damdim Tourism Huts, Dhalpal Bazar to Alipurduar Border; Banarhat TG canteen to Karbala, Bamanhat Road to Madaikali Mandir and Maynaguri bypass Jarda bridge to Madhabdanga.

<sup>19</sup> Doordarshan road from NH-31 to connector road of Fulbari Industrial estate and NH-31 to connector road of Fulbari Super Market, Sahudangi Road near Ramkrishna Ashram to Ashigar More, Paharpur More to Kaliaganj Uttameshwar High School via Chowringee More and Odlabari to Patharjhora via Manabari.

<sup>20</sup> Range between 39169 and 372035.

<sup>21</sup> "Guidelines for capacity of roads for Rural areas" (IRC: 64-1990).

<sup>22</sup> It is a vehicle unit used for expressing highway capacity. Car: 1, Truck/ Bus: 3, Agricultural Tractor Trailer: 4.5, Horse drawn Vehicle: 4, Bullock Cart: 6-8 (Table 1 of IRC:64-1990).

<sup>23</sup> A road shoulder is a strip of land immediately adjacent to the traffic lane of a road.

<sup>24</sup> Connecting road from Sahudangi Road near Ramkrishna Ashram to Ashigar More.

any recorded reason, widened the road to 5.5 m. As the PCU of the road was less than 2,000, 3.75 m width would have been sufficient to cater to the existing traffic as per relevant IRC guidelines. Thus, widening of the road in violation of IRC guidelines led to unnecessary expenditure of ₹ 1.16 crore.

NBDD, in reply, accepted the audit observation and stated that this was due to lack of experienced field engineer. The reply is not acceptable as the estimate for widening the road to 5.5 m was sanctioned by the Chief Engineer, NBDD.

#### 2.1.4 Created assets remained idle

Audit of sampled projects showed that following assets remained unutilised as detailed below:

##### 2.1.4.1 Development of Market Complex

NBDD had constructed 23 agricultural market complexes at different locations in the two (out of eight) selected districts at a total estimated cost of ₹ 121.61 crore with the objective of creating better marketing facilities and to enable farmers to sell agricultural products throughout the year. After construction, the markets were to be handed over to the respective Regulated Market Committees (RMC) of the districts, which were to thereafter oversee the operation and maintenance of the markets.

Joint physical verifications (March and August 2019) of four of the sampled markets showed that only one of the four markets was functional. In respect of the others, it was observed that:

- Two market complexes<sup>25</sup> constructed at a cost of ₹ 6.37 crore, were handed over (March and August 2018) to the respective RMCs. However, neither of the market complexes had started functioning<sup>26</sup>, as stalls were not yet auctioned to the beneficiaries by the respective Block Development Officers. NBDD, which was responsible for overall development of North Bengal, also did not follow up with the RMCs/ BDOs for early functioning of the markets.
- The fourth market complex<sup>27</sup> constructed (December 2017) at a cost of ₹ 3.70 crore was handed over (March 2018) to the concerned RMC. However, the 68 stalls constructed in the basement were not maintained and remained unutilised. All the stalls on the first floor of the market complex also remained unutilised. Only some open spaces on the ground



**Figure 2.1: Filthy condition of entrance gate of the fish market**

<sup>25</sup> Construction of market complex at Kaliganj Bazar at Suktabari and infrastructure development of Chilakhana Haat.

<sup>26</sup> Chilakhana Haat: March 2019, Kaliganj Bazar: August 2019.

<sup>27</sup> Construction of fish market at Mathabhanga.

floor was being utilised for selling fish/ meat. Thus, NBDD was not able to ensure utilisation of the assets created at a cost of ₹ 3.70 crore.

While three of the four market complexes physically verified were found to be non-functional, for the remaining 19 market complexes, there was no information on records to show the status of their functioning.

#### 2.1.4.2 Development of Ambari picnic spot

The work of development<sup>28</sup> of a picnic spot at Ambari was taken up (September 2016) by NBDD at a cost of ₹ 1.55 crore on the request of DM, Coochbehar. The civil work relating to sanitary & plumbing works was completed in December 2017 by incurring an expenditure of ₹ 1.18 crore. However, as of August 2019, this facility could not be put to use due to non-completion of electrical work.

In reply, the NBDD stated (August 2019) that electrical work had not been finalised as the authority which would run the newly constructed facility has not yet been decided. Therefore, the application for electricity connection could not be forwarded to the West Bengal State Electricity Distribution Company Limited.

Non-completion of construction that started in 2016 and the consequent non- utilisation of this facility resulted in blockage of fund of ₹ 1.18 crore.

#### 2.1.5 Undue Advantage to Agencies

Scrutiny of records showed that NBDD allowed ₹ 4.31 crore as interest free mobilisation advance to private contractors implementing six market complexes at different locations<sup>29</sup> under NABARD loan. There were, however, no recorded reasons available for allowing such interest free advances. The interest free advances were allowed by NBDD to private agencies without such provisions being incorporated either in the Notice Inviting Tenders or in the Tender documents. The undue advantage to the tune of ₹ 4.31 crore as interest free advance remained unrecovered for a period ranging between 356 and 478 days, which resulted in loss of interest of ₹ 0.49 crore<sup>30</sup>. Reply of the Department is awaited (December 2020).

#### 2.1.6 Conclusion

**NBDD was set up primarily to co-ordinate with different Departments for integrated and planned development of the North Bengal Region (NBR) based on assessment of the critical gaps in the area. NBDD got a Socio-Economic Perspective Plan (SEPP) prepared by the North Bengal University for the period 2010-2020, comprising long and short-term schemes after identifying critical gaps in various sectors. However, while implementing schemes for the NBR, it was seen that most of the projects were taken based on requests received from district authorities, and not based on the adopted SEPP. Moreover, 11 of the 14 identified priority areas were not addressed in any of the interventions. As a result, sectors**

<sup>28</sup> Construction of Guest House, Approach Road, Internal Road and Foot Path.

<sup>29</sup> Market complex at Kaliganj Bazar; Duliahat in Uccahlpukhri, Chilakhana Hat, Balarampur Hat, Nishiganj market and fish market at Mathabhanga.

<sup>30</sup> Calculated on the amount of advance provided to the contractors at the rate of 10 per cent per annum.

like rural housing, rural electrification, schools and health facilities, livelihood development etc., which were identified in SEPP as those with critical regional gaps were largely ignored. Of the projects that were taken up, various infrastructure for creation of marketing facilities for farmers, tourism projects, *etc.* remained unutilised. There was no mechanism in place for co-ordinated efforts with other Departments for taking up projects to ensure convergence and prevent overlap with departmental schemes.

### 2.1.7 Recommendations

- The Department should take up projects as per critical gaps identified in the SEPP, especially in social and livelihood & employment sectors for holistic development of the North Bengal Region.
- The Department should co-ordinate with other departments before taking up any project to ensure their post-commissioning operation and maintenance.
- Monitoring mechanism may be initiated to assess optimal utilisation of assets created.

## Animal Resources Development Department

### 2.2 Long Draft Paragraph on Prevention and Control of Animal Diseases in the State

#### 2.2.1 Introduction

Animal husbandry plays a critical role in providing employment and secondary income for millions of rural households, especially marginal and women farmers and landless labourers. The animal husbandry sector had emerged as one of the major sectors providing livelihood opportunities to the poor in the State. 20<sup>th</sup> Livestock Census 2019<sup>31</sup> shows that the number of poultry and cattle were 77.32 and 37.43 million, respectively. Further, as per the Basic Animal Husbandry Statistics 2019 (Department of Animal Husbandry Dairying and Fisheries, GoI), West Bengal is the 3<sup>rd</sup> largest producer of meat in India producing 10.3 *per cent* of annual aggregate meat production of the country in 2018-19. However, it contributes only three *per cent* of total annual milk production, with a per capita availability of 158 gms/ day against the all India average of 394 gms/ day and the Indian Council of Medical Research stipulation of 220 gms/ day. The State had also been failing to meet the internal requirement of meat and eggs. As per the data made available by the Department, as of January 2015, the meat production was 63 *per cent* of the internal requirement.

The biggest impediment to growth of the livestock sector is the large scale prevalence of diseases like Foot and Mouth Disease (FMD), Peste des Petits Ruminants (PPR), Brucellosis, *etc.* which may result in both morbidity and mortality, and adversely affect animal productivity. In order to tackle the health of livestock effectively, the Department implemented Centrally Sponsored Schemes for Livestock Health & Disease Control during the 12<sup>th</sup> Five Year Plan.

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<sup>31</sup> The Department of Animal Husbandry & Dairying under Ministry of Fisheries, Animal Husbandry & Dairying, GoI.

Audit was conducted between March and June 2019 with the objective to assess whether the provisions of the applicable rules, policies, guidelines and regulations made thereunder and various orders and instructions issued by the competent authority were being complied by the Department in respect of prevention and control of animal diseases. Scope of audit was limited to the activities of the Department during the period 2015-16 to 2018-19 for prevention and control of animal diseases. Audit methodology comprised test check of records of the Animal Resources Development Department (ARDD), Animal Resources and Animal Husbandry (AR&AH) Directorate, and seven field offices out of 23 districts<sup>32</sup> selected through simple random sampling without replacement. Further, records of 40 blocks were sampled for detailed checking in those districts. Results of Audit were as follows:

## Audit Findings

### 2.2.2 Prevention and control of Foot & Mouth Disease (FMD)

FMD is an acute and highly contagious disease of cloven-footed animals. High yielding cows and buffaloes are highly susceptible and more affected by this disease. This disease causes high mortality and morbidity of animals and is considered to be the most devastating animal disease as far as economic loss is concerned.

As per the Annual Report (2017-18) of the Directorate of FMD, Indian Council of Agricultural Research (ICAR), the direct economic impact of FMD is attributed to drop in milk production (upto 80 *per cent*), abortions, and death of young calves. The indirect adverse effects include loss of draught power in bovine for various works including cultivation and transportation, the cost of treatment and implementation of FMD control programmes, *etc.* Out of the 12 outbreaks in Eastern India in 2017-18, eight were reported from West Bengal.

FMD-Control Programme (FMD-CP), a Government of India programme (60:40 funding pattern) had been implemented (since May 2017) by AR&AH Directorate in all the districts of the State with the intention of providing vaccination to 100 *per cent* (171.11 lakh as per 19<sup>th</sup> Livestock Census 2012) of cattle and buffalo population in the State. Audit examined the implementation of the FMD-CP for the years 2016-17, 2017-18 and 2018-19. As per the Operational Manual for Implementation of the FMD-CP (Operational Manual), the vaccinations were to be administered at an interval of six months. As of October 2019, an expenditure of ₹ 56 crore<sup>33</sup> was incurred on the programme out of total allocation of ₹ 78.55 crore. However, the number of bovine population vaccinated by the State under the programme was not on records. As a result, achievement of the State against the target of 100 *per cent* vaccination of the cattle and buffalo population could not be assessed in Audit.

Operational manual of the programme, *inter alia* stipulated implementation strategy, modalities for procurement and supply of FMD vaccine, role of State/district monitoring units, strategy for sero-monitoring<sup>34</sup> and outbreak reporting,

<sup>32</sup> Nadia, Paschim Medinipur, Malda, Uttar Dinajpur, Jalpaiguri, South 24 Parganas and Murshidabad.

<sup>33</sup> Central share ₹ 33.65 crore and State share ₹ 22.35 crore.

<sup>34</sup> Monitoring of immune response after vaccination.

its control and containment. Though the Director of Animal Husbandry & Veterinary Sciences claimed (February 2019) that GoWB has been conducting FMD vaccination as per protocols of GoI, following deficiencies in implementation of the programme were noticed in Audit:

#### **2.2.2.1 Non-adherence to the potency test norms**

As per the standards of World Organisation for Animal Health (OIE)<sup>35</sup>, potency tests of FMD vaccine are required to be done for each batch. As per the Operational Manual five vials of each batch of vaccine were to be tested for efficacy from a Government recognised Laboratory.

It was noticed that the Directorate of Animal Resources & Animal Health (DAR&AH) procured FMD vaccines for mass vaccination from a private agency through e-tendering. As per the conditions of NIT, the agency was to furnish a copy of laboratory test certificate of the batch number of the vaccine along with the bills. Further, samples of vaccines were also to be sent to the Indian Veterinary Research Institute (IVRI), Bengaluru, for potency test. Scrutiny of records indicated that during 2017-18 and 2018-19, vaccines of 24 batches were distributed. However, as against five samples of each batch, only 16 samples from eight batches were sent<sup>36</sup> to the IVRI for quality testing, reports for which were yet to be received as of December 2019 even after a gap of around two years. No records were found to substantiate that the Department actively pursued with IVRI to obtain the test results.

Out of 24 batches of vaccines distributed among the selected districts, three batches of 5,813 vials for a total of 2,90,650 doses were supplied (February 2017) to Murshidabad district for further distribution among the 26 blocks for mass vaccination. Test check of records of eight selected blocks of this district revealed that the vaccines were distributed to the blocks without mentioning the batch number in the challans. In May 2017, Department of Animal Husbandry, Dairying & Fisheries, GoI, circulated that vaccines of one batch, used in this district, had failed the potency test carried out by IVRI, Bengaluru. It was seen in audit that out of 2,200 vials of this batch distributed in this district, 2,010 vials had already been utilised. The remaining 190 vials were returned. In the absence of batch number in the challans, it was not possible to monitor the efficacy and effectiveness of the vaccines used, leaving animals susceptible to FMD. The concerned Deputy Director, Murshidabad, while accepting the fact, stated (March 2019) that this occurred due to delay in receiving potency test report of the said vaccine.

Thus, guidelines of GoI regarding potency testing of all batches of vaccines were not adhered to, which risked the entire exercise of vaccination of cattle population against a severe and infectious disease like FMD.

#### **2.2.2.2 Norms of intervals between two vaccinations not followed**

As per the Operational Manual, vaccinations were to be administered at an interval of six months, which was essential for effective control of the disease and maintenance of herd immunity. During 2017-18 to 2018-19, it was noticed

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<sup>35</sup> An inter governmental organisation for co-ordinating, supporting and promoting animal disease control.

<sup>36</sup> 14 samples from six batches in 2017-18 and two samples from two batches in the year 2018- 19.

from the supply records of the vaccines to the selected districts that except South 24 Parganas, vaccinations were done only thrice against the requirement of four over the two-year period. Detailed scrutiny of vaccine schedule in the selected districts further revealed that in four blocks<sup>37</sup> of Jalpaiguri district, the gap between the supply of the vaccines for first and second vaccinations ranged between nine to eleven months, whereas the gap was only 13 days to three months between second and third vaccinations.

### 2.2.2.3 Re-use of disposable needles

Para 6.4 of the Operational Manual stipulated use of separate disposable needle for each animal for vaccination though the syringes could be used for 5-10 animals. FMD-CP vaccination records of 32 blocks in the selected districts during 2017-18 to 2018-19 showed that total 55.06 lakh doses of vaccine were administered whereas only 7.86 lakh needles were used for those vaccinations. It indicates that on an average, each needle had been used for at least eight animals, thereby increasing the scope of spread of infection and compromising the health of livestock.

Deputy Directors of the four districts<sup>38</sup> admitted the fact and attributed non-compliance to shortage of funds. However, it was noticed in audit that the approved vaccination cost included vaccines, needles, syringes cost of biological waste management *etc.* Further, out of the total allocation of ₹ 78.55 crore, only ₹ 56 crore were utilised till October 2019, hence, negligence of the Department rather than non-availability of funds appears to have been the reason.

### 2.2.2.4 Immunity level not improved even after three rounds of vaccination

As per the Operational Manual, prior to vaccination Veterinary Officer was to send 10 serum samples each from cattle and buffaloes from 10 randomly selected villages. After the 30<sup>th</sup> day of the first vaccination, again equal number of serum samples were to be collected and sent to IVRI to assess the titre level<sup>39</sup> against each serotype<sup>40</sup>. As per the information made available to Audit, 9,467 samples were sent during the period covered in audit, to IVRI. The results of sero-surveillance showed that only 42, 23 and 29 *per cent* vaccinated animals had attained the desired titre level at the end of the FMD-CP 2016-17, 2017-18 and 2018-19, respectively as against 75 *per cent* as prescribed by OIE. This indicated that the immunisation protocols were not followed properly, which resulted in non-attaining of desired titre levels.

From 2015-16 to 2018-19, the population at risk has varied from 2,040 to 54,573 indicating that the departmental figures in estimating the actual population was unreliable.

There were multiple outbreaks of FMD in the State during the period 2015-16 to 2018-19 even after four rounds of vaccination; details are shown in the **Table 2.2**.

<sup>37</sup> Jalpaiguri Sadar, Mal, Maynaguri and Rajganj.

<sup>38</sup> Jalpaiguri, Malda, South 24 Parganas and Uttar Dinajpur.

<sup>39</sup> Cattle maintain protective level against FMD if protective antibody titre of serum sample is  $\geq 1.8 \log 10$ .

<sup>40</sup> In India three serotype (O, A and Asia-I) of FMD virus are prevalent.

**Table 2.2: Outbreaks of FMD in the State**

Year	No of incidence	Population at risk	Bovines Affected	Deaths
2015-16	31	14,440	704	6
2016-17	5	2,040	181	8
2017-18	0	N/A	N/A	N/A
2018-19	62	54,573	19,903	368

(Source: Records IAH&VB)

The impact of non-attaining desired titre level resulted in 62 outbreaks of FMD in the State during 2018-19 leaving 54,573 animals at risk of which 19,903 (36.47 per cent) were affected with 368 reported deaths.

In reply, Joint Director, ARD, IAH&VB stated (April 2019) that the level of titre after vaccination depended upon many factors - proper deworming, health status, antigenic mass present in vaccine as well as potency of vaccine *etc.* However, though the success of vaccination depended on various factors, it was a fact that the schedule of vaccination was not followed as prescribed.

Thus, the objective of prevention of morbidity and mortality due to FMD by 100 per cent vaccination of eligible cattle and buffalo population was largely defeated even after an expenditure of ₹ 56 crore during 2016-17 to 2018-19 (upto October 2019), due to failure to follow protocols for effective vaccination.

### 2.2.3 Control of Bovine Brucellosis

Bovine Brucellosis is a major zoonotic disease<sup>41</sup> affecting both animals and human beings endemic in West Bengal. In cattle and buffalo, the disease is characterised by abortion, infertility, repeat breeding<sup>42</sup> and reduced milk yield. As per the Technical Guidelines of Department of Animal Husbandry, Dairy and Fisheries (DAHDF), GoI, the disease can be prevented by one-time vaccination of all eligible female calves.

Government of India in July 2018 made a budgetary allotment of ₹ 2.57 crore for Government of West Bengal under Rashtriya Krishi Vikash Yojana-Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR) with the priority given to Brucella Control Programme and Establishment of Veterinary Hospitals and Dispensaries in July 2018, subject to submission of proposal made by the State Government. As per the Assistant Director (AD), ARD (Veterinary), Directorate of Animal Resources and Animal Health, no funds were received from GoI and no vaccination had been done against Brucellosis in the State during 2018-19. However, from the records available, it could not be confirmed if the State Government had actually submitted a proposal in this regard.

Within the selected districts, test/ screening for Brucellosis was conducted only in the cattle section of Haringhata Farm in vicinity of Haringhata Bull Mother Farm (BMF) in Nadia district. Reports of serological examination done by IAH&VB in Haringhata Farm in 2015, 2017 and 2018, showed large number of Brucella positive cattle. It was observed that 124 (65.60 per cent), 37 (50.68 per cent) and 142 (47 per cent) animals were infected out of total

<sup>41</sup> A disease that normally exists in animals but that can infect humans.

<sup>42</sup> Failed to conceive after at least two successive inseminations.

tested 189, 73 and 302 animals, respectively. It was advised to cull all Brucella positive cattle and retest the remaining cattle after two months of culling. However, no action had been taken as of December 2019.

In reply, Additional Director, ARD, Haringhata Farm stated (May 2019) that they had sought (March 2018) intervention and directives for plan of action from Director of Animal Health & Veterinary Science for culling of Brucella positive cattle as advised by the IAH&VB. However, response was yet to come.

This indicated that the Department did not take any prompt action to control the spread of Bovine Brucellosis though there was risk of infection to the animals of Bull Mother Farm and Frozen Semen Bull Station located inside the Government farm.

#### **2.2.4 Control of Peste des Petits Ruminants (PPR) disease**

PPR also known as ‘Goat Plague’ is a viral disease characterised by high fever, inflammation of the gastro-intestinal tract leading to ulceration of the mucous membrane and diarrhoea in goats and sheep. The PPR infection causes huge losses in the rural economy, both in terms of morbidity and mortality in sheep and goats. PPR-Control Programme (PPR-CP), a 100 *per cent* GoI scheme, had been implemented (since 2014-15) throughout the country. The programme *inter alia* envisaged one-time vaccination of all eligible<sup>43</sup> sheep & goat population free of cost. As of March 2019, ₹ 8 crore was utilised on this programme in the State.

During 2014-15 to 2017-18, it was observed that the coverage of vaccination *vis-à-vis* total goat and sheep population (125.82 lakh as per 19<sup>th</sup> Livestock Census 2012) ranged from 26.58 to 69.74 *per cent*. As of March 2019, the coverage was 61.83 *per cent* as only 100.66 lakh were vaccinated against the total 162.80 lakh goats/ sheep in the State as per the latest census (20<sup>th</sup> Livestock Census 2019). The reason for this shortfall to vaccinate 100 *per cent* of the eligible animals was not available in the records in any of the test checked districts.

The deficiencies in implementation of the vaccination programme as noticed in audit are detailed below:

##### **a) Lack of proper infrastructure and consumables**

As per vaccination strategy issued by the Additional Director, ARD (Health), GoWB, vaccines were to be stored at (-) 20°C and utilised as soon as possible. Further, vaccines were to be banked at the block headquarters with proper power back-up to maintain regular power source for the deep freezers.

Scrutiny of records of four<sup>44</sup> out of the seven selected districts showed that deep freezers were not provided to any of the blocks. In the remaining three test checked districts, no information about availability of deep freezers was provided. In the absence of deep freezers, the required temperature of the vaccines could not have been ensured, resulting in the effectiveness of the vaccines being adversely affected.

Further, as per the records furnished by the Uttar Dinajpur district, in 2018-19, 4.60 lakh animals were vaccinated against a total population of

<sup>43</sup> *New born kid and lambs at around six months of age.*

<sup>44</sup> *Jalpaiguri, Malda, South 24 Parganas and Uttar Dinajpur.*

5.76 lakh. However, only 1.12 lakh needles were procured indicating that syringes and needles were re-used for vaccination, thereby increasing the chances of infection and transmission of communicable diseases.

#### **b) Lack of monitoring**

Vaccination strategy issued by the Department for implementation of PPR-CP, *inter alia* stipulated monitoring of vaccine response using competitive ELISA test through collection of samples<sup>45</sup> from the vaccinated goats at least 21 days after vaccination. This was required for detection of antibodies to PPR virus. Serum samples from vaccinated goats were to be obtained on random basis and tested in the Institute of Animal Health and Veterinary Biologicals (IAH&VB) Laboratory for the antibody status of the animal. It was observed that in two test checked districts<sup>46</sup>, samples were neither collected nor got tested.

It was also observed from the available reports of IAH&VB that out of 273 serum samples taken from vaccinated goats in Paschim Medinipur and South 24 Parganas, 117 serum samples were found PPR negative implying that necessary antibodies had not developed after vaccination in 43 *per cent* cases.

During the period 2015-16 to 2018-19, a total 214 PPR outbreaks were reported in the State in which 2,378 goats were infected causing 486 deaths. In respect of Uttar Dinajpur, Deputy Director, ARD & Parishad Officer of Uttar Dinajpur, stated (June 2019) that it was not clear whether the infected animals were vaccinated or not. This indicated that the district officer did not maintain any health card recording detail of vaccination which was required to be maintained as per the Technical Guidelines of Department of Animal Husbandry, Dairy and Fisheries (DAHDF), GoI to States for implementation of various components of Centrally Sponsored Schemes on livestock health and disease control of animals. This was despite the report of National Animal Disease Referral Expert System (NADRES) of July 2019, which categorised 14 districts of the State as high risk for PPR.

Although PPR-CP was introduced in the State since 2015-16, the vaccination coverage as of March 2019, was only 61.83 *per cent*<sup>47</sup> and incidences of PPR continued to occur.

### **2.2.5 Health care facilities for animals**

The State has an elaborate network of 2,652 Animal Development Aid Centres (ADAC), 271 Additional Block Animal Health Centres (ABAHC), 339 Block Animal Health Centres (BAHC), 92 State Animal Health Centres (SAHC), 10 District Veterinary Hospitals and eight Polyclinics. Health camps are also organised all over the State, which together provide required “Health Care” facilities to the livestock population in general.

Essential vaccines<sup>48</sup> for prevention of critical animal diseases were produced by the Institute of Animal Husbandry & Veterinary Biologicals (IAH&VB),

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<sup>45</sup> From at least five numbers of villages from each district at the rate of 30 samples per village.

<sup>46</sup> Jalpaiguri and Uttar Dinajpur.

<sup>47</sup> Of the sheep/ goat population as per 20<sup>th</sup> livestock census 2019.

<sup>48</sup> Total 13 vaccines like PPR, Anthrax, Haemorrhagic Septicemia, Black Quarter, Goat Pox etc. except FMD which is centrally procured.

Kolkata. Besides, other necessary technical assistance was also provided by the IAH & VB, District Disease Diagnostic Laboratories and the five Regional Disease Diagnostic Laboratories (RDDL) for disease diagnostics and to facilitate physical surveillance for prevention, control and containment of epidemics & highly pathogenic diseases.

### 2.2.5.1 Functioning of Animal Health Centres

During Audit of the selected districts, joint physical verification was done in 72 out of the 85 SAHCs (13), BAHCs (30) and ABAHCs (29). It was found that all health centres were operating under acute infrastructural shortages as detailed below:

- No operation rooms/ theatres were available in any of the physically verified animal health centres. The concerned officers-in-charge intimated that surgeries *viz.* caesarean section, hernia, amputation of limbs *etc.* were being conducted in open air, which increased the risks of post-operative infection.
- Essential medical/ surgical equipment *viz.* portable digital X-ray machine, post mortem set, delivery set, autoclave machine *etc.* were also not available.
- All the officers-in-charge of the health centres pointed out that supply of essential medicines, syringes/ needles and surgicals were inadequate and the entire annual supply of medicines & surgical instruments were exhausted within first few months. Further, due to shortage of syringes/ needles, health centres were compelled to reuse them.
- Emergency power back-up system, which was essential to maintain cold chain for preservation of vaccines was not present in any of the animal health centres.

### 2.2.5.2 Unfruitful expenditure

In Multi-Disciplinary Veterinary Hospital at Nabadwip in Nadia district, the X-ray machine with Computed Radiography (CR) system had been installed (April 2018) at a cost of ₹ 15.86 lakh. However, the machine could not be operationalised as of July 2020 for want of safety clearance from the competent authority and non-deployment of radiographer. As a result, X-Ray machine remained unutilised since its purchase in April 2018.

### 2.2.5.3 Manpower Management

It was noticed that there was shortage of Veterinary Officers, Veterinary Pharmacist, Veterinary Field Supervisor, Livestock Development Assistant (LDA) in the animal health centres of the State as detailed in **Table 2.3**.

**Table 2.3: Men in position *vis-à-vis* sanctioned strength as of March 2019**

Post	Sanctioned strength	Men in position	Shortage (percentage)
Veterinary Officers <sup>49</sup>	1,518	1,219	20
Veterinary Pharmacist	493	331	33
Veterinary Field Supervisor	341	91	73
Livestock Development Assistant	3,358	688	79

(Source: Directorate reply)

<sup>49</sup> Included BLDOS, Additional Directors, Joint Directors, Deputy Directors and Assistant Directors.

Livestock Development Assistants are key functionaries in any animal health centre. They render first aid to ailing animals, do artificial insemination for livestock development and help BLDOs and VOs for extension (field) works.

In the test checked districts, it was seen that out of 963 ADACs, LDAs were posted only in 172 ADACs and remaining 791 ADACs were without any LDAs. In their absence, 82 per cent of the ADACs were non-functional as of March 2019.

Further, out of total 72 animal health centres where joint physical inspection was done, it was seen that there were no VOs posted in 23 centres and eight centres were functioning under additional charge of VO holding dual charge. Moreover, in four<sup>50</sup> health centres, none was posted and as such no health care facilities were available in these centres. This has deprived extension of various medical facilities like surgeries of animals, Artificial Insemination (AI) of cattle, vaccinations *etc.*

### 2.2.6 Functioning of Polyclinics

As per the Vision Document of the Department of Animal Resources Development, Government of West Bengal, Veterinary polyclinics were established with an objective to provide multi-disciplinary modern health care facilities for animals.

Two of the eight polyclinics<sup>51</sup> (Clinic/ hospital dealing with various animal diseases) were test checked and it was found that those were not functioning properly as discussed below:

- Berhampore Polyclinic in Murshidabad had only one Veterinary Officer (medicine) without any technical support staff. It was observed that due to shortage of technical manpower, various machines<sup>52</sup> were unutilised. Further, Continuous Radiographic Imaging System (X-ray machine) which was purchased in the year 2011 at ₹ 13 lakh became (September 2015) unserviceable beyond repair due to non-utilisation. Operation theatre for large animals was also inoperative for the last five years since no VO was posted having specialisation in surgery. While accepting the observation, DD, ARD, Murshidabad stated (March 2019) that there was requirement of one VO in each Department *viz.* surgery, gynaecology and radiology for smooth running of the polyclinic.
- The building of the Malda Polyclinic was in a dilapidated condition and no permanent VOs or support staff were posted. Only two part time VOs were deputed to visit twice a week (Thursday and Saturday). Further, various medical equipment *viz.* X-Ray, Diathermy and USG machines, required for smooth functioning were in defunct condition. While accepting the observation DD, ARD, Malda also stated (March 2019) that for smooth functioning of the polyclinic, VOs specialised in medicine, radiology and surgery were required to be posted.

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<sup>50</sup> ABAHC, Khaiertala, Malda, ABAHC, Rosokhowa, Uttar Dinajpur, ABAHC, Sitarampur and Chunakhali at South 24 Pgs.

<sup>51</sup> Berhampur, Malda, Siliguri, Barasat, Tamluk, Burdwan, Suri and Coochbehar.

<sup>52</sup> Ultrasound scanner, Pulse Oximeter (blood analyser haematological machine), Endoscope with accessories, Short wave Diathermy, semi auto Analyser.

Replies of the officers-in-charge of the two polyclinics were not tenable as no records in respect of taking up the matter of shortage of manpower, equipment or consumables with the higher authorities in the Department were provided. However, the fact remains that Polyclinics have been functioning under acute infrastructural bottlenecks and manpower as a result of which required “Health Care” facilities to the livestock population could not be adequately provided.

### 2.2.7 Functioning of Regional Disease Diagnostic Laboratories

There are five Regional Laboratories<sup>53</sup> in the State. Out of these five, joint physical verification was conducted in three laboratories<sup>54</sup> during the course of audit and the following observations were noted:

#### 2.2.7.1 Regional Disease Diagnostic Laboratory (RDDL), Jalpaiguri

The RDDL, Jalpaiguri was upgraded in 2009 to Bio-Safety Level-II<sup>55</sup> utilising GoI funds of ₹ 17.40 lakh. The main objectives of this laboratory *inter alia* are (i) regular investigation and treatment of various diseases like Brucellosis, FMD, PPR, Tuberculosis *etc.* (ii) investigation of reproductive disorders, (iii) treatment in infertility camps (iv) haemoparasitic infection in cattle, testing of milk samples for Mastitis *etc.*

During the audit period 2015-16 to 2018-19, the Laboratory was almost in non-functional mode as only 93 tests (average of 31 per year) of blood samples for haemoprotozoa and faecal samples for endoparasites were done. It was noticed that due to absence of adequate staff, the main objective of the laboratory as mentioned above had not been done. Only one AD, ARD was posted in the Laboratory against the sanctioned post of one DD (Micro) with four ADs (ARD). Further, a bio-safety cabinet<sup>56</sup> installed in March 2015 at a cost of ₹ 4.62 lakh, remained idle since inception due to lack of technical manpower; Annual Maintenance Contract (AMC) of the cabinet was also not renewed after March 2016. The district pathological lab in the same premises was also found to be non-functional due to absence of required staff.

The DD, ARD, Jalpaiguri accepted (June 2019) the audit findings and stated that all the objectives of the Laboratory would be fulfilled after getting manpower and necessary servicing and repair of the instruments. However, the fact remains that the Laboratory was almost non-functional for the last five years.

#### 2.2.7.2 Poultry Disease Diagnostic Laboratory (PDDL), Garhbeta

The Laboratory was established *inter alia* for (i) general diagnosis and treatment of livestock and poultry population (ii) isolation and identification of etiological agents from suspected specimens (iii) study post mortem findings in relation to

<sup>53</sup> Darjeeling, Jalpaiguri, Burdwan, Bethuadahari and Garhbeta.

<sup>54</sup> Regional Disease Diagnostic Laboratory, Jalpaiguri, Poultry Disease Diagnostic Laboratory (PDDL), Garhbeta, Regional Disease Diagnostic Laboratory (RDDL), Bethuadahari, Nadia.

<sup>55</sup> This biosafety level covers laboratories that work with agents associated with human diseases (i.e. pathogenic or infectious organisms) that pose a moderate health hazard. All procedures that can cause infection from aerosols or splashes are performed within a biological safety cabinet.

<sup>56</sup> Biological safety cabinets are among the most effective primary containment devices used in laboratories working with infectious agents. They act as primary barriers to prevent the escape of biological aerosols into the laboratory environment.

diagnosis of diseases of livestock and poultry (iv) serological screening of poultry diseases and (v) advise farmers on common diseases of poultry and livestock.

However, it was seen that the work of serological screening (serum testing), isolation and identification of etiological agents was not done at all. No field visits for treatment of livestock and collection of samples for serological screening of poultry diseases were done by the Laboratory. This was attributed to the acute shortage of manpower and lack of proper infrastructure<sup>57</sup>. Only one AD, ARD (Micro), who was also officiating and acting as DD, ARD & PO Paschim Medinipur and one Laboratory Attendant were posted in the Laboratory against the sanction of one DD (Micro), two ADs (Micro) and two Laboratory assistants. It was seen that the Laboratory was just collecting samples relating to routine serum collection for onward transmission to IAH&VB, Belgachia.

DD, ARD, Paschim Medinipur accepted (April 2019) the audit findings and stated that due to acute shortage of manpower, lack of infrastructure and non-availability of pure distilled water, the Laboratory had failed to perform its functions optimally.

### ***2.2.7.3 Regional Disease Diagnostic Laboratory (RDDL), Bethuadahari, Nadia***

RDDL, Bethuadahari was established to conduct survey of infected abortions including study of their pathological and immunogenic properties to adopt control measure in herds, organising infertility and sterility camps, Ranikhet Disease (RD) immune status in poultry birds, sero surveillance against highly pathogenic Avian Influenza and also to advise farmers on common diseases of poultry and livestock.

It was observed that as of May 2019, only one AD was posted in the Laboratory against total sanctioned posts of one DD and four ADs (Micro). In absence of sufficient manpower, work related to Veterinary Research and Investigation (VR&I) was hampered. No data related to follow up action of cows treated for investigation of infertility in the RDDL was maintained. The concerned DD accepted (May 2019) the lapse and stated that henceforth, records about results of treatment would be maintained.

Programmes and schemes on animal health, including vaccinations and treatment of diseases were bound to be compromised with such acute shortage of trained manpower and inadequate and dilapidated infrastructure and facilities. The matter was reported to the Department in August 2020, followed by reminder in January 2021. Reply of the Government is awaited.

### **2.2.8 Conclusion**

**Norms for prevention and control of highly contagious animal diseases like FMD, Bovine Brucellosis and PPR were not adhered to. As a result, implementation of programmes for prevention of disease in livestock became ineffective and several outbreaks of these diseases were noticed.**

**Health care facilities for animals were severely incapacitated due to lack of functional infrastructure and severe manpower shortages.**

**Policies and programmes on animal health implemented by the State remain diffused and there appears to be a lack of focus and synergy between the**

<sup>57</sup> Pure distilled water.

interventions, which is exacerbated by the dismal state of the veterinary infrastructure and woeful lack of critical field personnel to implement and monitor the programmes.

### 2.2.9 Recommendations

- The Department should enforce strict compliance with the laid down protocols relating to testing efficacy, vaccination schedule, infrastructure and post-vaccination monitoring to ensure effectiveness of the vaccines.
- The Department should strengthen the health care and diagnostic facilities of the animals by re-assessing functional infrastructure and manpower.

## PUBLIC WORKS DEPARTMENT

### 2.3 Avoidable Expenditure due to Violation of IRC Guidelines

**The Department, in violation of Indian Roads Congress Guidelines, provided unnecessary extra bituminous layers in different road works which led to an avoidable expenditure of ₹ 4.78 crore.**

All the estimates of road works undertaken by the Public Works Department (PWD) are based on its Schedule of Rates (SOR), Ministry of Road Transport and Highways (MOR&TH) guidelines and Indian Roads Congress (IRC) guidelines. IRC guidelines include the pavement design catalogue to be used for determination of pavement thickness for road construction. This stipulates thickness of road and specification of each layer of road pavement to be constructed on the basis of strength of sub-grade soil<sup>58</sup>, which is expressed in terms of California Bearing Ratio<sup>59</sup> (CBR) and the projected traffic volume (expressed in *msa*<sup>60</sup> and ESAL<sup>61</sup>) during the design life<sup>62</sup> of the road. The guidelines also recommend that during formation/ widening/ strengthening of a road for traffic of two *msa* or more, Dense Bituminous Macadam (DBM) should always be laid as binder course. For traffic ranging between 1.5 *msa* and 2 *msa*, the guidelines recommend laying Bituminous Macadam (BM) as binder course.

It was observed during scrutiny of records (during June 2018 to November 2018) of five Divisions<sup>63</sup> of Public Works Directorate and Public Works (Roads) Directorate (PWRD), that strengthening and widening works of six roads were awarded to six different agencies between April 2015 and October 2017 at a total tendered cost of ₹ 48.51 crore for completion between October 2015 to August 2018. Out of the six works, five works were completed between February 2016 and April 2017 at a cost of ₹ 46.34 crore. The remaining one work was under progress as of May 2019 for which a total amount of ₹ 8 crore had been paid.

<sup>58</sup> The native material underneath a constructed road.

<sup>59</sup> The California Bearing Ratio (CBR) is a penetration test for evaluation of the mechanical strength of natural ground, subgrades and base courses beneath new carriageway construction.

<sup>60</sup> Million Standard Axles.

<sup>61</sup> Equivalent Standard Axle Load.

<sup>62</sup> The design life of a road is defined in terms of years arrived at by considering the cumulative number of standard axles (vehicles) that can be carried.

<sup>63</sup> Malda Highway Division (PWRD), Purulia Highway Division (PWRD), Dakshin Dinajpur Highway Division (PWRD), Barasat Division (PWD) and Diamond Harbour Division (PWD).

Detailed scrutiny of estimates of relevant works revealed that all the six works were to be executed by following IRC guidelines. However, from scrutiny of detailed estimates and vouchers it was observed that the guidelines were not followed. Details of the bituminous course laid *vis-à-vis* that required as per extant IRC guidelines are shown in the **Table 2.4**.

**Table 2.4: Road-wise thickness of bituminous layers laid vis-à-vis required as per IRC guidelines.**

Sl. No	Name of the Road	<i>msa</i> value	CBR in %	Bituminous course required as per IRC	Bituminous course executed by the Department
1	Daulatpur-Harirampur-Dehaband	2.25	4	50 DBM + 25 SDBC*	75 BM + 25 SDBC
2	Jhalda-Bagmundi	3	6	50 DBM + 25 SDBC	75 BM + 25 SDBC
3	Hatugunj-Purba Bishnupur	4.28	3.22	50 DBM + 25 SDBC	75 BM + 25 SDBC
4	Sarisha-Noorpur	4.5	3.6	70 DBM + 25 SDBC	100 BM + 25 SDBC
5	Kholapota-Baduria-Maslandapur-Habra	7	5	60 DBM + 30 BC**	75 DBM + 40 BC
6	Ratua-Bhaluka	1.73	4	50 BM + 20 OGPC <sup>64</sup>	50 DBM + 30 BC

(Source: Records of the divisions)

\*SDBC=Semi Dense Bituminous Concrete,

\*\*BC=Bituminous Concrete

It can be observed from the above table that in four road works having traffic more than two *msa* (Sl. No. 1 to 4), the Divisions, in violation of the Guidelines, had laid excess thickness of BM, DBM and BC.

In another work (Sl. No. 5), excess thickness of DBM and BC (75 mm instead of 60 mm and 40 mm instead of 30 mm, respectively) was laid while in the remaining one work (Sl. No. 6), having traffic below two *msa*, the Division laid 50 mm DBM and 30 mm BC instead of 50 mm BM and 20 mm OGPC in deviation of the relevant Guidelines.

This led to an avoidable expenditure of ₹ 4.78 crore in laying unnecessary layers of bituminous course. No justification for such deviation from IRC guidelines was found on record. The matter was reported (July 2019 followed by reminder in January 2021) to the Department; reply has not yet been received (January 2021).

## PUBLIC WORKS (ROADS) DEPARTMENT

### 2.4 Extra Expenditure

**The Department, while strengthening of a road did not consider the actual thickness of the existing non-bituminous base course and provided extra thickness than that required as per the IRC Guidelines. This resulted in extra expenditure of ₹ 0.82 crore.**

Indian Roads Congress (IRC) Guidelines stipulate thickness and specification of each layer of road to be constructed on the basis of strength of sub-grade

<sup>64</sup> Open Graded Premix Carpet.

soil<sup>65</sup>, which is expressed in terms of California Bearing Ratio<sup>66</sup> (CBR) and the projected volume of traffic (expressed in *msa*<sup>67</sup>) during the design life<sup>68</sup> of the road.

Scrutiny of the records of the Executive Engineer (EE), Hooghly Highway Division-I revealed (May 2018) that the Superintending Engineer (SE), Western Highway Circle No. II awarded (January 2018), strengthening work on a stretch of road<sup>69</sup> at a tendered cost of ₹ 6.67 crore for completion by October 2018. The scope of the work included ‘picking up’ of entire existing Bituminous Macadam (BM) layer (40 mm thick) and then overlaying with 200 mm thick Wet Mix Macadam (WMM) as base course<sup>70</sup>, followed by 50 mm Bituminous Macadam (BM) and a wearing course of 20 mm Premix Carpet & Seal Coat. The work was completed in July 2018 and ₹ 6.38 crore was incurred including ₹ 1.71 crore on WMM.

It was, however, observed that the PWRD did not consider the actual thickness of the existing base course in designing the road and provided extra 100 mm thick WMM layer as detailed in the **Table 2.5**:

**Table 2.5: Detailed calculations of excess thickness of road executed**

Name of the course	Required thickness of the road as per the IRC Guidelines (in mm)	Thickness of the road after the work of 2013 (in mm)	Thickness of the road should have been considered in the work of 2018 (in mm)	Thickness of the road actually considered in the work of 2018 (in mm)	Excess
Non-bituminous base course including WMM	550 (including 250 mm WMM)	460 (310 + 150 WMM)	560 (existing 460 i.e. 310+ 150 WMM from 2013 work and 100 mm new layer WMM)	660 (existing 460 from 2013 work and 200 mm new layer WMM)	100 mm WMM
Bituminous Macadam (BM)	50	40	50	50	Nil
<b>Total</b>	<b>600</b>	<b>500</b>	<b>610</b>	<b>710</b>	<b>100</b>

(Source: Divisional records)

- From the approved detailed cost estimates of the present work as well as of the earlier road work (January 2013) on the same stretch, it was seen that during the earlier work of January 2013, the then existing 310 mm thick pavement of the road was overlaid with 150 mm thick WMM as base course, 40 mm thick BM as binder course and a wearing course of 20 mm thick Mix Seal Surfacing (MSS). Thus, after picking up of BM

<sup>65</sup> The native material underneath a constructed road.

<sup>66</sup> The California Bearing Ratio (CBR) is a penetration test for evaluation of the mechanical strength of natural ground, subgrades and base courses beneath new carriageway construction.

<sup>67</sup> Million Standard Axles.

<sup>68</sup> The design life of a road is defined in terms of years arrived at by considering the cumulative number of standard axles (vehicles) that can be carried.

<sup>69</sup> Pandua-Polba Road from 8.00 kmp to 15.635 kmp.

<sup>70</sup> This is the layer directly below the bituminous layer and generally consists of layers of aggregates like WMM or WBM which provides additional load distribution, contributes to drainage, uniform support to the pavement and a stable platform for construction equipment.

layer, thickness of the existing base course remained 460 mm<sup>71</sup>, including 150 mm WMM.

- It was observed that based on the CBR and traffic volume<sup>72</sup> as envisaged in the approved detailed cost estimate of the present work, the required thickness of the road as per the IRC Guidelines was 600 mm including 250 mm of WMM as base course. As 150 mm WMM already existed, an additional 100 mm was sufficient to meet the design specifications as laid down in the guidelines.
- It was, however, observed that the Division, without any recorded reason in the DPR, considered the thickness of existing road as 350 mm in lieu of the actual thickness of 460 mm (including 150 mm WMM done in 2013) and executed 200 mm thick WMM.

Thus, due to execution of extra thickness of 100 mm WMM, the Department incurred an extra expenditure of ₹ 0.82 crore. The matter was reported (July 2019 followed by reminders in December 2019 and January 2021) to the Department; reply has not been received (January 2021).

## 2.5 Excess Expenditure

**Department, in construction of two concrete roads, executed an unnecessary extra sub-base layer and extra thickness of concrete layer in violation of the Indian Roads Congress Guidelines which resulted in excess expenditure of ₹ 1.36 crore.**

Indian Roads Congress (IRC) Guidelines for Standard Specification and the Code of Practice for Construction of Concrete Roads, stipulate that for construction of concrete roads, cement concrete layers shall be laid over a layer of sub-base<sup>73</sup>. The sub-base may be composed either of granular material<sup>74</sup> or stabilised soil<sup>75</sup> or semi-rigid material<sup>76</sup>. Further, the guidelines for the use of “Dry Lean Concrete (DLC)<sup>77</sup> as sub-base for rigid pavement” also stipulate that a DLC as sub-base is generally recommended for modern concrete pavements, particularly those with high intensity of traffic. It also recommends that, to facilitate quick disposal of water that is likely to enter the sub-grade<sup>78</sup>, a drainage layer of Granular Sub-Base (GSB) shall be provided below the sub-base throughout the road width.

<sup>71</sup> 310 mm thick pavement (existing) + 150 mm thick WMM as base course + 40 mm thick BM as binder course = 500 mm (20 mm MSS as wearing course is not regarded as an addition to the overall thickness of the road). Thus, after picking up of 40 mm BM layer in the new work, thickness of the existing base course became 460 mm.

<sup>72</sup> (i) CBR = 3.95 per cent (ii) msa = 6.81 for sub-base and base course (non-bituminous) considering design life of the road as 15 years.

<sup>73</sup> Sub-base is the layer of aggregate material laid on the sub-grade (the native material underneath a constructed road), on which the base course layer is laid.

<sup>74</sup> Composed of WBM, WMM, well-graded granular materials like natural gravel, crushed slag, crushed cement, brick metal, laterite, kankar, well graded soil aggregate mixtures etc.

<sup>75</sup> Composed of local soil or moorum stabilized with lime or lime-fly ash or cement.

<sup>76</sup> Composed of lime-burnt clay puzzalana concrete, lime-fly ash concrete and Dry Lean Concrete.

<sup>77</sup> Dry Lean Concrete (DLC) is a plain concrete with a large ratio of aggregate to cement than conventional concrete and generally used as a base/ sub base of rigid pavement.

<sup>78</sup> The native material underneath a constructed road.

Scrutiny of records of two divisions<sup>79</sup> under Public Works Roads Directorate (PWRD) revealed that the upgradation/ improvement of two village roads (Work-A<sup>80</sup> and Work-B<sup>81</sup>) into concrete roads were undertaken (in March 2015 and February 2017) by Superintending Engineer (SE) of South Western Highway Circle at a tendered cost of ₹ 20.53 crore and ₹ 6.07 crore respectively. The works were completed in December 2017 and February 2018, and ₹ 20.51 crore and ₹ 6.15 crore were paid to the contractors respectively. The improvement/upgradation works done on the roads vis-à-vis requirement as per IRC guidelines are shown in the **Table 2.6**.

**Table 2.6: Requirement as per IRC guidelines vis-à-vis works done**

	Existing road	Upgradation/ Improvement works done	Requirement as per IRC guidelines
Work-A	Earthen Road	100 mm GSB	100 mm GSB
		75 mm WMM	75 mm WMM
		200 mm Concrete (M-35 grade)	190 mm Concrete (M-30 grade)
Work-B	200 mm to 250 mm laterite/ moorum	150 mm GSB	150 mm GSB
		250 mm WMM	Not required
		150 mm DLC	150 mm DLC
		300 mm Concrete (M-45 grade)	300 mm Concrete (M-45 grade)

(Source: Divisional records)

Scrutiny of Detailed Project Report of Work-A revealed that the Department calculated 190 mm M-30 grade of concrete layer as safe for the instant road in accordance with the relevant Guidelines. However, audit observed that the Department without any recorded reason included 200 mm thick M-35 grade of concrete pavement in the tender. Thus, by laying an extra 10 mm of and higher grade of M-35 concrete, the Department incurred excess expenditure of ₹ 0.57 crore.

In case of Work-B, below the 300 mm thick M-45 grade concrete layer, 150 mm thick sub-base layer composed of DLC and 150 mm GSB layer below the DLC sub-base were required to be laid as per relevant guidelines. However, the Department without any recorded justification, deviated from the relevant IRC Guidelines and an extra layer of 250 mm WMM below the DLC layer was included in the DPR and tender and executed, thereby incurring an extra expenditure of ₹ 0.79 crore. In reply, SE stated (December 2018) that in consideration of anticipated traffic load and plying of heavy vehicles, it was decided to improve the road with an extra layer of WMM prior to DLC for future lasting. The reply may be viewed in the light of the fact that 300 mm thick high grade concrete (M-45) was laid over the DLC considering heavier traffic load. Further, DLC as sub-base was also

<sup>79</sup> Midnapore Highway Division-II and Purulia Highway Division.

<sup>80</sup> Work-A- "Improvement of road by providing concrete pavement from Ajodhya (Hatinda) to Khamar Road via Tellyabhasa, Bamnijora and Pititiri-21.86 km"

<sup>81</sup> Work-B- "Upgradation of village road from Farm Road Point at NH-6 to Jambedia Village near Jindal Steel Works Plant-1.48 km"

laid below the concrete pavement as per IRC guidelines in case of high intensity traffic.

Thus, the Department in construction of two concrete roads used higher grade concrete and laid 10 mm thick extra concrete layer and an unnecessary extra 250 mm of sub-base layer in violation of the IRC Guidelines. This led to excess expenditure of ₹ 1.36 crore<sup>82</sup>.

The matter was reported (July 2019 followed by reminder in January 2021) to the Department; reply has not been received till date (January 2021).

## IRRIGATION AND WATERWAYS DEPARTMENT

### 2.6 Avoidable Expenditure

**Inflated value of anticipated scouring effect of the river due to deviation from the norms in designing river protection works resulted in avoidable expenditure of ₹ 1 crore.**

Handbook for Flood Protection, Anti-erosion and River-training Works, Central Water Commission (CWC)-2012, read with Bureau of Indian Standards (BIS) code and 'Irrigation Engineering and Hydraulic Structures' provide guidelines for estimation and design of river protection work. It provides that the technical specifications of protection work of any natural river of meandering nature<sup>83</sup> are designed on the basis of anticipated maximum scour<sup>84</sup> depth below Lowest Water Level<sup>85</sup> (LWL), which is arrived *inter alia* on the basis of dominant discharge<sup>86</sup> of the river. Further, dominant discharge depends upon the catchment area<sup>87</sup> and an empirical formula *viz.* Dicken's constant<sup>88</sup>. CWC recommends different values of Dicken's constant ranging from 11-14 for the rivers of North-Indian hilly regions. Therefore, any deviation from these parameters *viz.* Dicken's constant and dominant discharge, would result in inaccurate value of scour depth resulting in faulty design of river protection work.

Scrutiny of records of Siliguri Irrigation Division under Irrigation and Waterways Department showed that Executive Engineer (EE) executed embankment protection works on the right bank of river Boon at Pataram area and on the left bank of river Swarnamati at Gourijote area for a total length of 850 m at a tendered cost of ₹ 1 crore. The works commenced in January 2017 and were completed in March 2017 at a total cost of ₹ 1 crore. The scope of the work included river bank protection by providing 0.23 m thick grouted bituminous

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<sup>82</sup> ₹ 0.79 crore (for WMM) + ₹ 0.57 crore (for excess concrete)

<sup>83</sup> A meander is a winding curve or bend in a river. Meanders are the result of both erosional and depositional processes.

<sup>84</sup> 'Scouring' refers to the removal of the bed or bank of a water course by the action of flowing water.

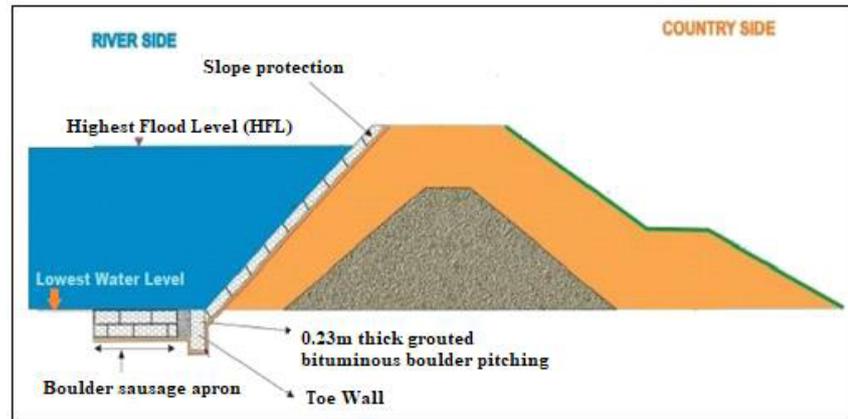
<sup>85</sup> The lowest level of water recorded for dry season

<sup>86</sup> For natural rivers, the discharge which determines the meander length may be called the Dominant discharge. Dominant discharge of river varies between 1/2 to 2/3 of the maximum discharge, where Maximum discharge = Dicken's constant X (catchment area)<sup>3/4</sup> cumec.

<sup>87</sup> A river drains the water collected from a specific area which is called catchment area.

<sup>88</sup> Derived from regional values arrived at on the basis of nature of catchment and the intensity of rainfall. The value of this varies from 6 to 28 depending upon the geographical region.

boulder pitching work along the slope of the embankment, resting over boulder sausage apron<sup>89</sup>.



**Figure 2.2: Cross section of river embankment**

It was seen from the DPR that the Division had taken up the work on the assumption that the rivers were meandering in nature and their courses were changing frequently causing erosion of banks. Scrutiny of the estimates showed that for calculation of scour depth, maximum discharge<sup>90</sup> of the rivers was considered (value of maximum discharge is higher than the dominant discharge) instead of dominant discharge. Further, Dicken's Constant was considered as 20 instead of 11-14, in deviation of the recommendation of CWC without any recorded reasons.

While justifying the values of Dicken's Constant, the Department stated (September 2019) that as per provisions of Indian Road Congress Guidelines (SP:13-2004), Dicken's Constant may be 14-19 for estimation of flood in designing a bridge where annual rainfall is more than 120 cm. However, the guidelines quoted in the reply are applicable for 'Design of Small Bridges and Culverts', which is not applicable for embankment protection work. Further, the Division itself considered the value of Dicken's constant as 12 in another protection work<sup>91</sup> executed in the same region in 2018.

Thus, by adopting higher Dicken's constant applicable to Central India, maximum discharge calculated was inflated. Moreover, instead of dominant discharge, which is used to calculate maximum anticipated scour depth, maximum discharge was used in the estimates (**Appendix-5**). This increased the calculated maximum scour depth to below the LWL, necessitating protection work as per the relevant IS code. It was observed that if estimation was done on the basis of dominant discharge and appropriate Dicken's constant<sup>92</sup> relevant for North Indian hilly regions the maximum anticipated scour depth would have

<sup>89</sup> Apron is a flexible stone cover placed on the bed of the river which settles into the scouring area as scouring takes place and covers the base and side of the scour hole, preventing it from developing further scouring.

<sup>90</sup> Maximum discharge of 347.48 cumec and 287.79 cumec was considered against the Dominant discharge of 139 cumec and 115.12 cumec in river Swarnamati and river Boon respectively.

<sup>91</sup> Protection on the right bank of River Lachka near Uttora township for a length of 400 m at lower Bagdogra G.P.

<sup>92</sup> 0.44 and 0.06 m above the LWL respectively for the river Swarnamati and Boon.

been above LWL and no protection work would have been required. Thus, the expenditure of ₹ 1 crore incurred on the protection work of the embankment was avoidable.

## 2.7 Avoidable payment of electricity charges

**Despite lower power consumption for prolonged period, the Division did not assess actual power consumption to reduce the contract demand. This resulted in avoidable expenditure of ₹ 1.49 crore towards electricity charges on higher contract demand.**

As per the West Bengal Electricity Regulatory Commission (WBERC) Regulations, 2010, an intending consumer or an existing consumer seeking extension of load under existing service or for alteration of service, as the case may be, shall request the licensee<sup>93</sup> in the prescribed form along with an earnest money. As per the regulation, there is no time limit for upward revision of load; however, downward revision of contract demand can be done only once a year. As per Para 4.3.5 of the WBERC (Terms and Conditions of Tariff) Regulations, 2011, demand charges<sup>94</sup> are levied on actual maximum demand recorded in a month or 85 *per cent* of the contract demand, whichever is higher, along with charges for actual consumption at rates applicable from time to time.

Scrutiny of records of the Executive Engineer, Metropolitan Electrical Division, Irrigation and Waterways Department (I&WD) in March 2019 showed that the Division entered (December 1985) into an agreement with the then West Bengal State Electricity Board (WBSEB)<sup>95</sup> for a contract demand of 1,500 kVA for proposed 24 pumps with 20 cusecs capacity and 100 HP motor each at a pumping station at Ranichak, Ghatal in Paschim Medinipur district. The pumping station was established for drainage cum irrigation purpose and has been operative since the year 1997 with installation of 12 pumps only. Scrutiny of the electricity bills during 2013-14 to 2018-19 available in the Division showed that the monthly consumption of electricity of the 12 pumps never reached the contracted demand of 1,500 kVA and the actual consumption ranged between 24 to 792 kVA per month.

Audit observed that despite recurring low consumption of power due to non-operation of the installed pumps to the optimal capacity and non-installation of the remaining 12 pumps, the Division continued to pay electricity bills, including committed payment for contractual demand (85 *per cent* of contracted demand, *i.e.* 1,275 kVA) during the period as per the contract. The Division did not make any efforts to review the contract demand even after more than 30 years, despite the pumping station being commissioned with 50 *per cent* of the capacity proposed while negotiating the contract demand. This led to payment of avoidable electricity charges beyond actual usage since 1997.

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<sup>93</sup> "licensee" means the distribution licensee authorized to operate and maintain a distribution system for supplying electricity to consumers in its licensed area of supply.

<sup>94</sup> Demand charges are additional fees that utilities charge non-residential or commercial customers for maintaining constant supply of electricity.

<sup>95</sup> Predecessor of West Bengal State Electricity Distribution Company Limited.

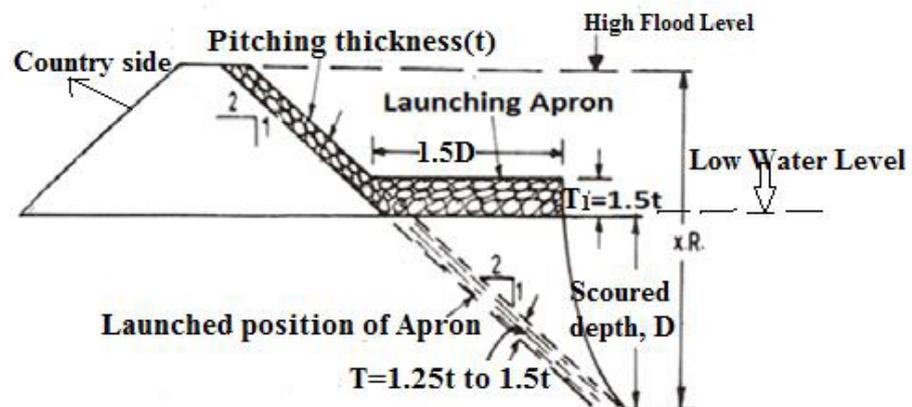
Audit observed that in the period between 2013-14 and 2018-19, the Division paid avoidable energy charges of ₹ 1.49 crore, since it did not revise the contract demand as per actual consumption of electricity.

In reply, the Department stated (September 2019) that as the pumping station was situated in a low lying area, with possibility of being submerged during heavy rainfall. Therefore, to prevent mechanical damage to the pumps, electro-mechanical equipment was dismantled and pumps were not utilised during the rainy season. The Department also stated that a proposal has since been initiated to replace existing pumps with modern pumps which could operate even in totally submerged conditions. Thus, it is evident that the pumps were not in operation as planned and the power requirement therefore was much lower than the contract demand. Despite this the Department did not revise the contract demand to align it with their actual power consumption.

## 2.8 Extra Expenditure

**Department in violation of the IS Code provided excess quantity of stone boulders/Cement Concrete Blocks in launching apron which resulted in extra expenditure of ₹ 4.88 crore.**

The Indian Standard (IS) Code on Planning and Design of Revetment Guidelines recommends that the thickness of launched apron<sup>96</sup> (T) should be 25 to 50 per cent more than the pitching thickness (t) on the slopes. (Refer diagram in Fig. 2.3 below)



**Figure 2.3: Launching Apron and Launched position of Apron**

Chief Engineer (CE), North Irrigation & Waterways Directorate, Superintendent Engineer (SE), North Irrigation Circle-I and Superintendent Engineer (SE), North Irrigation Circle-II, Irrigation and Waterways Department undertook 12 river bank protection works (between January 2014 to December 2016)-three works<sup>97</sup> under Malda Irrigation Division, five

<sup>96</sup> As soon as the scour occurs, the launching apron falls down into the scoured portion, and then it is called the launched apron.

<sup>97</sup> "Bank protection work on the left bank of river Mahananda in Mouza-Asrafpur (from plot No. 609 to 777, near Border Gate No. 43) (Length 950 m)", "Bank protection work on the left bank of river Mahananda in Mouza-Asrafpur (from plot No. 785 to 1015) (Length 950 m)" and "1500 meter protection work of river Tangon at Aihodanga, Block-Habibpur, Dist-Malda"

works<sup>98</sup> under North Dinajpur Irrigation Division and four works<sup>99</sup> under Ganga Anti Erosion Division-II, at a total tendered cost of ₹ 42.23 crore for completion during May 2014 to October 2017. The works were completed during May 2014 to January 2018 and total ₹ 41.31 crore was paid to the agencies.

The scope of the works *inter alia* included pitching of riverbank slopes with stone boulders/ Cement Concrete (CC) blocks and dumping of loose stone boulders/ boulder sausage crates/ CC blocks in launching apron. Scrutiny revealed that the Department in deviation of the above IS Code executed excess thickness (ranging from 0.15 m to 0.525 m) of launching apron. As a result, 26,108.63 m<sup>3</sup> of excess stone boulders/ CC blocks were used in launching aprons and an extra expenditure of ₹ 4.88 crore was incurred (Table no. 2.7).

**Table 2.7: Required thickness of apron vis-à-vis thickness provided and extra expenditure thereof**

Name of the Division	Slope pitching material	Required thickness of slope pitching (t)	Material dumped in launching apron	Required thickness of launching apron (T=1.5 t)	Thickness of launching apron provided	Excess volume of boulders/ CC Blocks in Launching Apron	Extra expenditure incurred on boulders/ CC Blocks
Malda Irrigation Division	Stone Boulders	0.225 m	Loose Boulders and Boulders in sausage crates	0.34 m	0.6 m	5,341.78 m <sup>3</sup>	₹ 1.40 crore
	Cement Concrete Blocks	0.20 m	Cement Concrete Blocks	0.30 m	0.75 m	10,106.670 m <sup>3</sup>	₹ 0.40 crore
North Dinajpur Irrigation Division	Stone Boulders	0.225 m	Loose Boulders	0.337 m	0.675 m	1,475.38 m <sup>3</sup>	₹ 0.29 crore
Ganga Anti Erosion Division-II	Stone Boulders	0.45 m	Boulders in sausage crates	0.675 m	1.2 m	9,184.80 m <sup>3</sup>	₹ 2.79 crore
<b>Total</b>						<b>26,108.63 m<sup>3</sup></b>	<b>₹ 4.88 crore</b>

(Source: Departmental records)

Thus, the Department in violation of the IS Code provided excess 26,108.63m<sup>3</sup> of stone boulders/ CC Blocks in aprons and thereby incurred an extra expenditure of ₹ 4.88 crore.

The matter was reported (September 2019 followed by reminder in January 2021) to the Department; reply has not yet been received (January 2021).

<sup>98</sup> “Bank Protection work along the left bank of river Nagar at village Gopalpur under GP-Bhatol in PS-Raiganj (1400.00 m)”, “Bank protection work along the left bank of river Tangon at Village Mirjagar under GP-Radhikapur (1000 m)”, “Protection work to the right bank of river Sui at village Khasra under Surun-I GP in PS-Itahar (900 m)”, “Protection work along the left bank of river Nagar at village Jagadishpur under GP-Halalpur, PS-Raiganj (650 m)” and “Protection work along the left bank of river Sui at village Gulandar, GP-Gulandar-II, PS-Itahar (595 m)”.

<sup>99</sup> “Strengthening of right bank of River padma at suryanagar in sagarpara GP for a length of 160 m”, “Strengthening of right bank of River Padma for a length of 110.00 m at Pascheem Becchpara, Bannabad (Mouza Shibnagar)”, “Strengthening of right bank of River padma for a length of 150 m downstream of Farakka Barrage upto Jalangi at village Balagachi under 6 Nos. Kharibona Gram Panchayet” and “Protection of the right bank of river Ganga-Padma at Suryanagar colony in Sagarpara GP for a length of 200.00 m”

## MICRO, SMALL AND MEDIUM ENTERPRISES & TEXTILES DEPARTMENT

### 2.9 Inconsistent application of provision of the incentive scheme resulted in excess payment to the enterprises

**The District Industries Centres under Micro, Small and Medium Enterprises & Textiles Department disbursed excess incentives due to inconsistent application of provisions of WBIS-2007 scheme for calculation of additional incentives meant for enterprises owned by women. It led to excess payment of ₹ 13.85 crore to the enterprises.**

With a view to promote micro and small scale enterprises in the State, the Micro, Small and Medium Enterprises & Textiles Department (MSME&T) launched (June 2007) a new incentive scheme titled “The West Bengal Incentive Scheme 2007” (WBIS-2007). The scheme was effective from April 2007 to March 2012. Any micro or small scale industrial unit/ enterprise which commenced its commercial production during the validity of the scheme was eligible for incentives under the scheme. The scheme *inter alia* provided payment of incentives in the form of reimbursement of a certain percentage of costs incurred by the enterprises on fixed capital investment, interest on term-loans for implementation of the project and electricity charges paid for production & operation. The percentage of the incentives was based on the location<sup>100</sup> and type<sup>101</sup> of the enterprise. Further, as per para 16.1 of WBIS-2007, all micro/ small scale enterprises owned by women were also entitled to 10 *per cent* additional incentive in respect of the incentive packages, irrespective of their location.

Test-check of records of three<sup>102</sup> District Industries Centres (DICs) revealed (December 2018) that seven small scale enterprises and 11 micro enterprises were treated as women enterprises and incentives of ₹ 76.59 crore were disbursed (March 2010 - March 2017) to those enterprises. Scrutiny, however, revealed that the DICs, in violation of the said WBIS-2007 guidelines, granted additional incentives as shown in **Table 2.8**.

**Table 2.8: Details of additional incentive provided to the agencies**

Type of enterprise (1)	Rate of incentives normally allowed			Rate of incentives applicable for women’s enterprises including additional 10% on allowable incentives			Rate at which incentives actually allowed		
	(2) F	(3) I	(4) E	(5) = (2) + 10% of (2) F	(6) = (3) + 10% of (3) I	(7) = (4) + 10% of (4) E	(8) = (2)+10 % F	(9) = (3)+10 % I	(10) = (4)+10 % E
<b>Micro (Group-B)</b>	25.0	30.0	30.0	27.5	33.0	33.0	35.0	40.0	40.0
<b>Micro (Group-C)</b>	30.0	30.0	30.0	33.0	33.0	33.0	40.0	40.0	40.0
<b>Small (Group-B)</b>	15.0	25.0	30.0	16.5	27.5	33.0	25.0	35.0	40.0
<b>Small (Group-C)</b>	17.0	25.0	30.0	18.7	27.5	33.0	27.0	35.0	40.0

Units in percentage

F = Fixed capital investment, I = Interest on term loan, E = Energy charges

<sup>100</sup> All the districts of the State were divided into four categories A, B, C and D based on their backwardness.

<sup>101</sup> Enterprise is a micro where fixed capital investment is ≤ ₹ 25 lakh or small scale where fixed capital investment is ≤ ₹ 5 crore.

<sup>102</sup> Siliguri (Group-C), Birbhum (Group-C) and Hooghly (Group-B).

Thus, additional incentives were paid by enhancing the stipulated percentage by 10 *per cent* instead of calculating additional incentive of 10 *per cent* on the incentive normally admissible to the enterprises. Due to application of incorrect incentive rates, total incentive was erroneously paid as ₹ 76.59 crore instead of ₹ 62.74 crore. This resulted in undue payment of ₹ 13.85 crore as incentive to 18 small/ micro enterprises.

During the course of audit, it was revealed that one DIC (Dakshin Dinajpur) allowed the additional incentive of 10 *per cent* on the incentive normally admissible to the enterprises instead of enhancing the stipulated percentage by 10 *per cent*. Further, in the WBIS Scheme 2013, as well as the MSME Policy of the State (effective from 2013), the Department revised the respective clause related to additional incentive for the State Capital Investment Subsidy and made it categorically clear that additional incentive to micro and small enterprises wholly owned by women would be calculated at the rate of 20 *per cent* on what is normally admissible to other enterprises. Moreover, no additional incentive on account of Interest on Term Loan and Energy Charges are allowed.

Thus, there were contradictions in implementation of the provisions for additional incentives for women enterprises. The Department should review the provisions of the scheme for its uniform application throughout the State and accordingly issue necessary clarifications.

The matter was reported (November 2019 followed by reminder in January 2021) to the Department; reply was awaited till date (January 2021).

## AGRICULTURE DEPARTMENT

### 2.10 Extra Expenditure

**The Department did not put due diligence in applying appropriate SOR for arriving at the rate of excavation of earth, thus, had to bear an extra expenditure of ₹ 5.79 crore on construction of 1,664 number of Water Harvesting Structures.**

The Department, for the purpose of storing water for irrigation, pisciculture, recharging ground water *etc.* had constructed Water Harvesting Structures (WHSs) under various Government of India Schemes and State Plan in different places of the State. The Department, allowed execution of these types of work by willing beneficiary committees in relaxation of tender rules, as those did not require any technical skills of higher order. This was *inter alia* subject to the condition that works were to be executed within the sanctioned amount based on the approved rates of PWD. Subsequently, the Department, issued a directive (October 2008) which stipulated that for preparation of the estimates of soil conservation work, Schedule of Rates (SORs) of any of the engineering departments, including Water Resources Investigation and Development Department (WRIDD) were to be followed. The directive, however, did not specify the appropriate SOR to be followed. Also, as per the provision of the General Financial Rules “Every officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money”.

Audit of seven selected implementing units<sup>103</sup> showed that during 2014-15 to 2017-18 those units constructed a total of 2,170 WHSs through beneficiary committees, out of which records of 1,664 WHSs were test checked for detailed checking.

Construction of WHS *inter alia* included earthwork in excavation from the borrow pits with lift up to 3.00 m. It was seen that in all the test checked cases, SORs of either the Public Works (Roads) Department (PWRD) or Irrigation & Waterways Department (I&WD) were followed to arrive at the rate of earthwork for making payments. This was despite the fact that rates of earth excavation as per these two SORs were higher than that of the SOR of WRIDD (**Table 2.9**).

**Table 2.9: Statement comparing rates of the item of earthwork as provided in PWRD, I&WD and WRIDD**

Description of item	SOR Rate (in ₹ )		
	PWD (Roads)	I&WD	WRIDD
In ordinary soil	89.90	77	54.02-60.35
In mixed soil ( <i>i.e.</i> clay mixed with kankar, pebbles, moorum <i>etc.</i> )	99.90	102	60-69.78
Soft weathered rock/ soft laterite	119.90	151	73-123.89
Extra Lead/ lift <sup>104</sup>	10	Nil	Nil

It was further observed that the item of excavation of earth from borrow pits as incorporated in the SORs of PWD and I&WD was generally suitable for construction of embankment as it includes some items like spreading in layers, breaking of clods *etc.* which are not essential in excavation of WHS, while the items<sup>105</sup> as per SOR of WRIDD are specifically related to the construction of WHSs.

The Directorate of Agriculture stated (December 2019) that works were executed following the model estimate approved by the Joint Director of Agriculture and in conformity with the Department's directive of October 2008. However, fact remained that due diligence in respect of expenditure incurred from public moneys was not followed. As a result of adoption of the SOR of PWRD/ I&WD, the Department had to bear an extra expenditure of ₹ 5.79 crore on the payment of earthwork for the 1,664 number WHS, which could have been avoided had the SOR of WRIDD been followed. The reasons for following SOR of PWRD and I&WD instead of WRIDD were not found on record. The matter was referred to the Department (May 2020 followed by reminder in January 2021), reply is awaited (January 2021).

<sup>103</sup> Assistant Director of Agriculture (Admn) of Soil Conservation, Bankura, Cooch Behar, Jalpaiguri, Diamond Harbour, Paschim Medinipur and Assistant Director of Agriculture (Admn) of Soil Conservation, Draught Prone Area Programme (DPAP), Bankura. Assistant Director of Agriculture (Admn), Raghunathpur.

<sup>104</sup> Rate as per the SOR of PWRD, includes the initial lead up to 50 m and initial lift up to 1.5 m. Extra for every additional lift of 1.5 m at the rate of ₹ 10 per cum. Rate of excavation of earth as per the SOR of WRIDD includes all lifts and lead upto 1,500 m.

<sup>105</sup> Excavation in ordinary soil/ mixed soil *i.e.* clay mixed with moorum, kankar, pebbles/ silt/ dry or moist/ slushy silt/ sticky soil for WDS/ WHS/ RESERVOIR/ SFMIS *etc.* with hydraulic excavator of required bucket capacity including cutting and loading in tippers, trimming bottom and side slopes in accordance with requirement of lines, grades and cross section and transporting to embankment/ disposal site within all lifts and lead upto 1,500 m including spreading, leveling disposed spoils at disposed area.

## TRANSPORT DEPARTMENT

### 2.11 Failure to preserve Victoria Memorial Hall from the menace of vehicular pollution-unfruitful expenditure and loss of interest

**Steps taken by the Transport Department to preserve the historical monument- Victoria Memorial Hall from the menace of vehicular pollution as per the order of Hon'ble Calcutta High Court proved unfruitful as the two nearby bus termini responsible for causing vehicular pollution could not be relocated. The lackadaisical approach of the Department resulted in unfruitful expenditure of ₹ 24 crore on Santragachi bus terminus and blockage of ₹ 10.61 crore and loss of interest of ₹ 3.18 crore on Goragacha bus terminus.**

In order to protect and preserve the historical Victoria Memorial Hall (VMH) from menace of increasing pollution, the Hon'ble Calcutta High Court ordered (September 2007) Government of West Bengal (GoWB) to shift two major inter/intra city bus termini situated within the heart of the city Kolkata viz. Esplanade and Babughat to the outer fringes of the city within six months. GoWB, filed (2008) a Special Leave Petition in the Hon'ble Supreme Court of India. The Hon'ble Supreme Court, while granting the leave and condoning the delay, modified (September 2011) the order of the Hon'ble Calcutta High Court and directed the State Government to take appropriate action for relocation of both the bus termini. This order, however, did not specify any specific timeline for relocation.

Consequently, a High Power Committee, under the chairmanship of the Chief Secretary of the State, was constituted (September 2013) by the Hon'ble Calcutta High Court. A project proposal for construction of two bus termini at Goragacha<sup>106</sup> and another at Santragachi<sup>107</sup> was prepared (April 2014) by Hooghly River Bridge Commissioners (HRBC), an autonomous body under the Transport Department. The High Power Committee, decided (June 2014) that HRBC, would take up the construction of bus terminus.

However, even after 12 years of the order of the Hon'ble Calcutta High Court, the existing bus termini of Esplanade and Babughat could not be relocated. Failure of Transport Department in setting up the bus termini are discussed in subsequent paragraphs:

#### **Terminus at Goragacha**

As per the decision (June 2014) of the High Power Committee, a plot of land belonging to Kolkata Port Trust (KoPT), an autonomous body under Ministry of Shipping, Government of India, measuring about 18,360 m<sup>2</sup> at old Goragacha road was earmarked for construction of a new bus terminus. The land was to be taken on long-term lease of 30 years by HRBC, being the implementing agency, on behalf of Transport Department, subject to acceptance of terms and conditions put forth by KoPT. HRBC paid (July 2014) upfront premium of ₹ 10.61 crore to

<sup>106</sup> Land measuring 4.53 acre near Hide Road under the administrative control of Kolkata PortTrust (KoPT).

<sup>107</sup> Land measuring 12.78 acre near Santragachi railway station, Howrah under the administrative control of Kolkata Metropolitan Development Authority (KMDA).

KoPT and received (July 2014) the permissive possession<sup>108</sup> of the plot. HRBC issued (19 August 2014) the NIT for construction of proposed bus terminus at a total estimated cost of ₹ 7.03 crore. Meanwhile, a physical verification of the site before commencement of construction work was conducted on 27 August 2014 by a joint team of Transport Department and HRBC which noticed that due to presence of a weighbridge, the Goragacha Road remained blocked most of the time by a series of standing trucks. Hence, it would have been particularly impossible to provide passage for buses to the proposed bus terminus. Considering these circumstances, HRBC decided (February 2015) to cancel the NIT till the problem was resolved.

Transport Department asked (November 2015) the KoPT to either ensure relocation of the existing weighbridge or take back the permissive possession of the land from HRBC by refunding the upfront premium of ₹ 10.61 crore. KoPT informed (July 2017) the Transport Department that the owner of the weighbridge was given alternative land and requested for HRBC to be instructed to accept the terms and conditions of the lease so as to enable KoPT to take further necessary action. However, fact remained that (December 2019), neither HRBC executed a formal agreement with the KoPT nor the Transport Department found any alternative land suitable for construction of a new bus terminus. As a result, an amount of ₹ 10.61 crore remained blocked for five years and HRBC lost the opportunity to earn an interest of ₹ 3.18 crore<sup>109</sup> on that amount.

HRBC stated (May 2019) that they were the mere executing agency of the Government for the purpose of setting up of a bus terminus at the said plot and all the steps were taken as per the instructions of the appropriate authority. This reply was endorsed (July 2019) by the Transport Department. However, fact remained that the project proposal, on the basis of which High Power Committee decided on the location, was prepared (April 2014) by the HRBC under the supervision of the Transport Department and that proposal had not mentioned about presence of any traffic hindrance due to weighbridge.

Thus, it indicated that both HRBC and the Transport Department did not conduct any physical inspection of the site while preparing the project proposal submitted for the consideration of the High Power Committee. This resulted in blockage of funds for five years and loss of interest for the period, causing inordinate delay in construction of a new bus terminus.

### ***Terminus at Santragachi***

As per the decision of the High Power Committee, HRBC took up (June 2014) the work of construction of a new bus terminus at Santragachi at a cost of ₹ 19.96 crore. The work was completed and new bus terminus with all the associated amenities was inaugurated in May 2015. As of March 2019, an amount of ₹ 24 crore was spent on construction and maintenance of the bus terminus. However, as of December 2019, the bus terminus at Santragachi had not been utilised by shifting the bus termini from Esplanade and Babughat.

<sup>108</sup> *Permissive possession is given after deposit of advance amount so that the executing agency can go ahead with the construction. Final possession is given after a formal agreement is signed between KoPT and HRBC.*

<sup>109</sup> *Calculated at the rate of six per cent simple interest for five years.*

In reply the Department stated (November 2019) that construction of flyovers for smooth ingress and egress of buses from the terminus was in progress and once the flyovers are completed, full functioning of Santragachi bus terminus would be possible. However, the Department's reply is not tenable due to following reasons:

- Although the DPR for Bus Terminus at Santragachi provided for flyovers as ideal solution to ease traffic congestion likely to occur in the future, the cost of construction of the same was not included in the estimates. The Department accordingly constructed the bus terminus without any flyovers and the same was inaugurated (May 2015).
- The Department took up (January 2017) the work of the flyovers at an estimated cost of ₹ 31.70 crore after eighteen months from the completion of the terminus, indicating casual attitude of the Government to shift the bus termini. Further, the work of flyovers was to be completed by March 2018, but could not be completed till December 2019.
- Transport Department, in May 2015, was also of the opinion that the newly constructed bus terminus should not lie unused and at least the long distance buses from Babughat bus terminus might be plied from there without any further delay.
- The High Power Committee, in its fourth report had decided (September 2014) that buses from Esplanade and Babughat bus termini would be shifted in a phased manner; in the first phase all the long distance buses would be shifted.
- As per the order of the Hon'ble Calcutta High Court, the High Power Committee was to submit quarterly reports regarding status of development of the bus termini. The fourth quarterly report of the High Power Committee submitted on November 2014 was the last such report and no further report was sent to the Hon'ble Court as directed.

Thus, even after 13 years of the order of the Hon'ble Calcutta High Court the Department failed to relocate the bus termini at Esplanade and Babughat which kept polluting the VMH in violation of the spirit of orders passed by the Hon'ble Court, rendering the expenditure of ₹ 34.61 crore unfruitful.

The matter was reported (February 2020 followed by reminder in January 2021) to the Department; reply was awaited till date (January 2021).