CHAPTER VII

Compliance Audit Observations

CHAPTER VII

7. Compliance Audit Observations

Compliance audit of Departments of Government and their field formations brought out several instances of lapses in management of resources. These have been discussed in the succeeding paragraphs.

COMMERCE AND TRANSPORT (TRANSPORT) DEPARTMENT

7.1 Non-realisation of motor vehicles tax and additional tax from Goods Carriages

Regional Transport Officers failed to realise Motor Vehicles tax of ₹4.64 crore and penalty upto ₹9.28 crore from 3,081 defaulting vehicle owners.

As per Sections 3, 3A, 4(1) and 10 of the Odisha Motor Vehicles Taxation (OMVT) Act, 1975, motor vehicles tax and additional tax, due on every motor vehicle, used or kept for use, has to be paid in advance, at the rates prescribed for different classes of vehicles, as per taxation Schedule I of the Act, as amended (21 November 2017), unless exemption from payment of such tax has been allowed for the period covered under 'off-road undertaking'[195]. As per Section 13(1) of the Act, read with Rule 9(2) of the OMVT Rules, 1976, if the taxes were not paid within two months after expiry of the grace period of 15 days from the due date of payment, the registered owner, or the person having possession or control thereof, shall, in addition to payment of tax due, be liable to pay penalty, which may be extended up to twice the tax due. Further, as per the instructions of State Transport Authority (February 1966), Regional Transport Officers (RTOs) were required to issue demand notices, within 30 days from the expiry of the grace period for payment of tax. In case of default, Tax Recovery Certificates (TRCs) were to be issued, within a period not exceeding 30 days from the date of service of the demand notice, for payment of the amount.

Audit analysed (December 2020 and March 2022) the VAHAN[196] database, with the taxation records of 26 out of total 35 RTOs, relating to the period 2019-21, and observed that the owners of 3,081, out of 1,63,800 goods carriages, pertaining to 16 RTOs[197] had not paid Motor Vehicles (MV) tax and additional tax, during 2019-21. On verification of the off-road registers maintained at the RTOs, it was observed that these vehicles have not been exempted, under off-road undertakings, under Section 10(1) of the OMVT

195 An undertaking given by the owner of the vehicle, to the RTO, under Section 10(1) of the OMVT Act, 1975 and prior permission obtained from him, for not plying the vehicle for a temporary period and for not to pay tax for the said period.

196 VAHAN is an application software which has been assigned to cater to all requirements for registration of vehicles and collection of taxes by the Transport Department.

197 Bargarh, Balasore, Balangir, Bhubaneswar-I, Bhubaneswar-II, Gajapati, Ganjam, Jagatsinghpur, Jharsuguda, Kalahandi, Mayurbhanj, Nuapada, Rayagada, Sambalpur, Sundargarh and Talcher

Act. Since, the periods of delay involved in all these cases were more than two months, maximum penalty of twice the tax due, was also leviable. Details of MV Tax and penalty of these 3,081 vehicles, are given in the **Table No.7.1** below.

Table No. 7.1: Non-realisation of motor vehicles tax and additional tax from Goods Carriages

(₹ in crore)

Sl. No.	Number of RTOs	Types of vehicles	Number of vehicles	Amount of tax not realised	Maximum penalty leviable	Total
1	16	Goods Carriages	3,081	4.64	9.28	13.92

(Source: Information collected by Audit)

Though VAHAN software allows the RTOs to generate tax defaulter lists, at any point of time, the concerned RTOs had neither issued demand notices, nor had they taken any action against the defaulting vehicle owners, for realisation of tax and penalty thereon. This resulted in non-realisation of MV tax and additional tax of ₹4.64 crore. Penalty upto ₹9.28 crore, could also have been levied on the defaulters as detailed in the ***Appendix - XXXI***.

In reply, the RTOs stated (December 2020/ March 2022) that steps would be taken to issue demand Notice/ TRCs for realisation of MV Tax and penalty from the defaulters. The matter was intimated to the Government (January 2022/ December 2022). Their reply was awaited (February 2024).

A similar observation had been incorporated in the Audit Report (Revenue Sector) 2019-20, but action on the same is yet to be taken/ intimated.

7.2 Short levy of Motor Vehicles Tax

Motor Vehicles tax including additional tax of ₹1.16 crore and penalty of ₹23.26 lakh was short realised from the owners of 4,373 vehicles due to adoption of old rate of taxes.

Under Section 4-A of the Odisha Motor Vehicles Taxation (OMVT) Act, 1975, read with Explanation-I thereto, One Time Tax (OTT) is payable/leviable, in regard to Motor Cycles/ Mopeds, Motor Cars (including Jeeps), which have been registered on or after 21 November 2017 and are used personally/ kept for personal use, as specified in Schedule III to the Act, 'calculated on the cost of the vehicle prevalent on the date of its first registration'. As per Gazette Notification dated 21 November 2017, read with revised Notification dated 27 July 2018, the OMVT Act was amended, enhancing the tax rate on cost of vehicles, the cost of which did not exceed ₹5 lakh, to 6 *per cent*; costing above ₹5 lakh and upto ₹10 lakh, to 8 *per cent*; costing above ₹10 lakh and upto ₹20 lakh, to 10 *per cent*; and costing above ₹20 lakh, to 12 *per cent*, from the old uniform rate of 5 *per cent* of the cost of the vehicle. Under Section 13 of the OMVT Act, 1975, read with rule 9 of the OMVT Rules, 1976, a penalty not exceeding 20 *per cent* of the tax due, is to be levied, for failure to pay the tax.

Audit test-checked (between December 2020 and March 2022) the VAHAN database pertaining to the year 2017 to 2021, in regard to registration and payment of Motor vehicles tax, by newly registered personal vehicles, i.e. Cars and Motorcycles/ Mopeds *etc*. and verified the registration records at 25[198] (plus two ARTOs under RTOs) out of total 35 RTOs. Audit observed that 4,373 out of the 12,28,276 vehicles registered at these 25 RTOs, between 22 November 2017 and 31 March 2021, who had applied for registration and paid tax on or after appointed date i.e. 21 November 2017, at the lower rates prevalent prior to the date of notification. These RTOs had not verified the tax collected, before approving the final registrations and had not noticed the fact of short-realisation, till the date of audit. The possibility of lack of input controls in the VAHAN database cannot be ruled out. Thus, MV Tax of ₹1.16 crore along with penalty of ₹23.26 lakh could not be realised. The RTO-wise details are given in the ***Appendix - XXXII***.

After this was pointed out in audit, the RTOs stated that the differential tax had been entered in Audit Recovery Module of VAHAN and demand notices had been issued. However, no action taken for finding the reasons of short realisation or to fix the responsibility was reported (as of March 2023). The audit observation has been made on the test checked RTOs, the department needs to analyse the data in all remaining RTOs and take necessary action to realise the revenue.

The matter was brought to the notice of the Government of Odisha during May 2022/ January 2023. Their reply was awaited (February 2024).

FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT

7.3 Non-disposal of Red Sanders wood

Blockage of Government revenue due to non-disposal of Red Sanders wood of ₹349.70 crore.

The Department of Forest, Environment, and Climate Change (FE & CC), Government of Odisha (GoO), made an offer (December 2018) to the Odisha Forest Development Corporation Limited (OFDC Ltd.), for harvesting and marketing of Red Sanders (RS) trees, which had been uprooted/ half broken/ top broken, in the Paralakhemundi Forest Division of Gajapati district, during super cyclone “Titli” in the year 2018. The Board of Directors of OFDC Limited approved (22 December 2018) the proposal for harvesting and marketing of RS Wood. Further, Government of India (GoI) notified (October 2021) a relaxation in the export policy, allowing export of 810.19 MT of RS Wood, in log form, which had fallen due to the cyclone and instructed finalisation of modalities for export of the said quantity, within 12 months from the date of notification. Later, (November 2022) the time limit was extended by GoI upto 6 October 2023.

[198] RTOs, Angul, Balasore, Barbil, Bargarh, Bhubaneswar-I including ARTO Khurda, Bhubaneswar II, Chandikhol, Cuttack, Dhenkanal, Gajapati, Ganjam, Jagatsinghpur, Kalahandi, Kendrapara, Keonjhar, Mayurbhanja including ARTO Rairangpur, Nabarangapur, Nuapada, Phulbani, Puri, Rayagada, Rourkela, Sambalpur, Sundargarh and Talcher

GoO constituted (January 2022) a committee of eight members, under the Chairmanship of Additional Chief Secretary, FE & CC Department, to facilitate global e-tender/ e-auction sale and other aspects of tender process, for disposal of RS wood. A technical committee was also constituted (January 2022), under the Chairmanship of the Regional Chief Conservator of Forests (RCCF), Berhampur, to: (i) oversee the fashioning/ re-measurement/ grading/ lot formation inside the campus of central godown at Berhampur and (ii) visit Andhra Pradesh, for acquiring knowledge on the process of grading of RS and modalities followed by the Andhra Pradesh Forest Development Corporation (APFDC) Limited, for harvesting and marketing of RS wood.

Scrutiny of the salvage case records of RS wood, at the Divisional Forest Office (DFO), Paralakhemundi, revealed (February 2022) that the Divisional Manager, Berhampur (C) Division, had identified 810.19 MT of salvage RS wood, from the Paralakhemundi Forest Division, which had been lying un-disposed since 2018, in the central godown at Berhampur. Out of this, 503.24 MT, 232.59 MT, 23.63 MT and 50.73 MT were of grade 'A', 'B', 'C' and ungraded quality, respectively. The Technical Committee, in their Report (February 2022) had submitted the average rate per MT for different qualities of RS in terms of Indian rupees. Accordingly, the value of grade 'A', 'B' and 'C' RS wood, works out to ₹347.92 crore as detailed in the **Table-7.1** below.

Table 7.1: Detailed calculation of value of RS

Grade	Quantity in MT	Latest year of average rate	Average rate per MT (in ₹)	Value (₹ in crore)
A	503.24	2020-21	57,18,824	287.80
B	232.59	2018-19	24,48,280	56.94
C	23.63	2017-18	13,44,588	3.18
Total	**759.46**			**347.92**

Similarly, the value of the balance 50.73 MT of ungraded RS worked out to ₹1.78 crore[199], at the rate of ₹350 per kilogram, as per the rate recommended (December 2004) by the department, for sandal wood. Although considerable time had already lapsed since salvage of these cyclone effected RS wood, the department had not taken any action for their disposal. The prolonged storage of RS wood was not only fraught with the risk of deterioration in quality, but also in quantity due to shrinkage.

Thus, inordinate delay in disposal of RS wood resulted in blockage of revenue of ₹349.70 crore. This indicated lack of effective and timely action by the Department, in disposal of RS wood.

On this being pointed out, the Divisional Forest Officer (DFO) stated (February 2022) that the RS wood would be disposed of after permission from competent authorities, such as Convention on International Trade in Endangered Species of Wild (CITES), Director General of Foreign Trade (DGFT) and Government etc., to obtain higher revenue. The reply was not tenable, as GoI had already accorded permission for disposal of RS wood, with the stipulation that the modalities for export be finalised within 12

[199] 50,733 kg x ₹350 = ₹1,77,56,550

months from the date of notification, which the department failed to avail of. The salvaged RS wood remained un-disposed, resulting in deterioration in quantity, quality and blockage of Government revenue, as of November 2022.

The matter was brought to the notice of the Government (November 2022); reply was awaited (as of February 2024).

7.4 Non-levy of interest on belated payment of Net Present Value

Interest of ₹95.69 lakh was not levied, as the User Agency had paid the Net Present Value belatedly.

As per Section 2 of the Forest (Conservation) Act, 1980, read with the orders of Hon'ble Supreme Court of India, issued in October 2002, the Net Present Value (NPV) of forest land, diverted for non-forest purposes, is also to be recovered from the user agencies (UA), for undertaking forest protection, other conservation measures and related activities. NPV is recoverable in all cases, where diversion was approved on or after 29 October 2002, as also for the cases for which in-principle (Stage-I) clearance was granted before 29 October 2002 and final (Stage-II) approval was granted subsequently.

Further, the Central Empowered Committee (CEC), constituted by the Hon'ble Supreme Court, had ordered (May 2010) that the mining lease holders, who do not pay the NPV within a period of 30 days from the date of demand being raised by the concerned Divisional Forest Officer (DFO), will not be allowed to continue mining, till the payment of NPV, along with interest. The Forest & Environment Department, GoO (May 2013), prescribed the rate of interest as nine *per cent* per annum, for delayed payment of NPV.

Scrutiny of forest land diversion records at DFO, Sambalpur, revealed (December 2021) that forest land of 192.626 ha and 845.561 ha, in the Sambalpur and Jharsuguda Forest Divisions, respectively, had been diverted in favour of M/s Neyveli Lignite Corporation Limited (NLC India Ltd.), for an Opencast Coal Mining Project. The in-principle (Stage-I) approval had been accorded on 03 July 2018 and final (Stage-II) approval on 28 March 2019, by the Ministry of Environment, Forests and Climate Change (MoEF & CC). The DFOs had issued (between 13 August and 03 September 2018) demand notices to the UA, for payment of NPV at the prescribed rate of ₹6,26,000 per ha, amounting to ₹64,99,05,062[200].

Audit noticed that, against the time limit of 30 days for payment of NPV, the UA had deposited the NPV amount on 28 November 2018, after delays of 56 days and 76 days, from the dates of demand. However, interest of ₹95.69[201] lakh, at the prescribed rate of nine *per cent*, for delayed payment of NPV, had neither been demanded by the concerned DFOs, nor had it been deposited by the UA, and the said amount, towards interest on NPV, had remained unrealised from the UA, till date (as of October 2022).

---

200 In respect of DFO, Sambalpur (192.626 ha X ₹6,26,000 = ₹12,05,83,876) and for DFO, Jharsuguda (845.561 ha X ₹6,26,000 = ₹52,93,21,186)

201 (₹12,05,83,876 x 9 / 100) / 365 x 76 = ₹22,59,709 plus (₹52,93,21,186 x 9 / 100) / 365 x 56 = ₹73,08,983

On this being pointed out by Audit, the Government stated (October 2022) that, the order of the Hon'ble Supreme Court (May 2010) is applicable for the leases covered under I.A. No. 2746-2748 of 2009 and not for this project. The reply was not acceptable as the order of the Hon'ble Supreme Court was applicable for all leases, wherein the NPV, for diversion of forest land, had been deposited belatedly.

7.5 Non-disposal of Timber and Poles

Divisional Forest Officers failed to take timely action for disposal of timber, poles and firewood, which resulted in blocking of revenue of ₹88.37 lakh.

The Government of Odisha (GoO), Forest, Environment and Climate Change Department, had instructed (August 2005) the Principal Chief Conservator of Forests and Head of Forest Force (PCCF&HoFF) that timber and other forest produce, seized in undetected (UD) forest offence cases, be disposed of, either by public auction or by delivery to the Odisha Forest Development Corporation Limited (OFDC), within two months from the date of seizure, in order to avoid loss of revenue and deterioration in quality and consequent value reduction on account of prolonged storage. It fixed the rates of royalty on timber, for the financial year 2020-21, in September 2021.

Test-check of records (2019-20 to 2021-22), pertaining to 30 forest divisions[202], revealed that 24,324.70 cubic feet (cft.) of timber (logs and sized), 6,667 poles and 1,304.33 quintals of firewood, seized during 2015-21, against 1,676 UD forest offence cases, were lying undisposed. Audit observed that, as per the rates fixed by Government, the value of the above material worked out to ₹88.37 lakh, as detailed in ***Appendix - XXXIII.*** Thus, lack of effective and timely action by the Departmental authorities, including the Range officers (ROs) and Divisional Forest Officers (DFOs), had resulted in blockage of revenue, to the extent of ₹88.37 lakh.

The matter was brought to the notice of the Government during November 2022; reply was awaited (February 2024).

HOUSING AND URBAN DEVELOPMENT DEPARTMENT

7.6 Idle expenditure on construction of modern meat shops

Non-allotment of 29 meat shops led to idle expenditure of ₹1.78 crore and consequent loss of revenue of ₹55.02 lakh.

Rule 3 of Prevention of Cruelty to Animals (Slaughter House) Rules, 2001 stipulates that no person shall slaughter any animals within a municipal area except in a slaughter house licensed by the concerned authority. Further, Section 562 of the Odisha Municipal Corporation Act, 2003 provides that

[202] Boudh, Balangir, Keonjhar, Deogarh, Angul, Bonai, Cuttack, Paralakhemundi, Rayagada, Rourkela, Phulbani, Athagarh, Sundargarh, Rairangpur, Jharsuguda, Khordha, Baripada, Baliguda, Ghumsur (N), Dhenkanal, Ghumsur(S), Baragarh, Subarnapur, Bamra (WL), Balasore (WL), Sunabeda (WL), Berhampur, Keonjhar (WL), Puri (WL) and Satakosia (WL)

there shall be complete ban on roadside slaughter of any animal in the corporation areas. As per para 3.2.7 of the OPWD code, before taking up the project, a detailed estimate should be prepared based on feasibility of the project. As per the financial sanction order (March 2016), Bhubaneswar Municipal Corporation (BMC) should ensure transparency in process of allotment of shops in market complex so that the allotment is made to the right beneficiaries. As per terms and conditions of allotment of property Notification (November 2015), all the properties were to be allotted by mode of lottery or auction in a transparent manner to the eligible applicants, who had successfully registered and applied as per conditions of the brochure subject to the provisions of Bhubaneswar Development Authority Property (Management and Allotment) Regulations, 2015.

Scrutiny of records at BMC revealed (January 2021) that in the review meeting of Food Processing industries held on 12 August 2014 under the chairmanship of Chief Secretary, Government of Odisha (GoO), it was decided to construct 30 modern meat shops. Administrative approval was accorded (May 2016) by the Government for construction of 30 modern meat shops for ₹3.78 crore including cost of equipment. Audit observed that the civil works of the meat shops were awarded (November 2016) at the cost of ₹2.70 crore for completion by November 2017. Due to shortage of land, the civil works of 29 shops were completed (February 2018) with payment of ₹1.78 crore. During December 2017, the City Engineer requested the Deputy Commissioner (DC), Revenue to take necessary steps for allotment of meat shops. Though applications for allotment were sought for by publishing in local newspapers, no application was received. Accordingly, BMC made a survey and published (July 2018) a list containing name of 16 meat vendors. The Bhubaneswar meat vendors Association raised objections and demanded (August 2018) further construction of 271 meat shops as 300 meat vendors were in BMC. This indicated that the survey of BMC was faulty. BMC also did not initiate measures for issue of trade licenses for 29 shops and resolve the issue to allot 29 shops to venders as of November 2021.

i) The Slaughter House rules stipulate that slaughtering of an animal can be done only in a licensed slaughter house and the Odisha Municipal Corporation Act also bans all roadside slaughter of any animal in the corporation areas. In the instant case, while there were 300 meat vendors, the shops available for allotment were only 29.

ii) During Joint Physical Inspection (JPI) of the two market sites with Asst. Engineer, BMC (on 12 January 2021 and 24 November 2021), it was revealed that out of the 29 modern meat shops, 17 modern meat shops at Unit-IV had been completed with all equipment. It was further observed that, although the civil construction works had been completed for the 12 modern meat shops at Ghatikia, the mechanical instruments and equipment, as agreed by Government, had not been supplied.

Photo No.25 - Modern meat shop at Unit – IV Market

Photo No.26 - Modern meat shop at Ghatikia

Thus, due to failure of BMC to resolve the issue and finalise the list of beneficiaries for allotment of 29 meat shops led to idle expenditure of ₹1.78 crore besides paving way for illegal slaughtering within the Municipal Area. Consequently, BMC also sustained loss of revenue of ₹55.02 lakh towards rents as of November 2021.

The matter was intimated to the Government during March 2022. Their response was awaited (February 2024).

7.7 Undue benefit to the contractors

Excess provision for rates of Ductile Iron pipes in laying of water supply distribution systems in seven municipalities led to undue benefit to contractors for ₹1.05 crore.

Para 3.4.10 of Odisha Public Works Department (OPWD) code provides that while submitting the estimates, the Divisional Officer should append a certificate stating that the estimates for the work were prepared in most economical manner using sanctioned Schedule of Rates (SoR). Clause 31(a) of the contract agreement provides that in case of any price variation due to increase in price of steel, cement, bitumen and pipes after submission of tender, reimbursement of the differential cost are to be made by the Executive Engineer (EE) with prior approval of tender accepting authority and in case of decrease in prices of cement, steel, bitumen and pipes, recovery shall be made by concerned EE from the contractor immediately.

Scrutiny of records (November 2021) at Public Health (PH) Division No. II, Cuttack under Housing and Urban Development Department (H&UDD) revealed that for seven works of extension of pipelines for distribution of water in uncovered areas[203] in four Municipalities[204], estimates were technically sanctioned by Superintending Engineer (SE), PH Circle, Cuttack for ₹11.78 crore between July and September 2017. As the Ductile Iron (DI) K7 pipe was a non-scheduled item, the Engineer-In-Chief (EIC), PH, Odisha approved (July 2017) the rates of DI K7 pipes of 100 mm, 150 mm and 200 mm (Ø)[205] at ₹928, ₹1,325 and ₹1,661 per meter, respectively. The EE adopted these rates while preparing the estimates taking ₹1,077.87, ₹1,538.99

[203] Areas where water supply pipeline networks were not in place.

[204] i) Jajpur Municipality, ii) Vyasanagar Municipality, iii) Jagatsingapur Municipality, and iv) Paradeep Municipality

[205] Diameter

and ₹1,937.38 per meter for 100 mm, 150 mm and 200 mm (Ø) pipes, respectively including 7.5 *per cent* of overhead charges (OHC) and contractor's profit (CP) each and one *per cent* labour cess on basic cost[206]. The works were awarded between December 2017 and March 2018 for ₹11.20 crore for completion between May 2018 and July 2018. The works were in progress (September 2021) with payment of ₹10.58 crore to the contractors.

Further, it was revealed that the rates were again revised and approved (October 2017) by EIC (PH), Odisha as ₹786.40, ₹1,122.90 and ₹1,413.60 per meter for 100 mm, 150 mm and 200 mm (Ø) of DI (K7) pipes respectively after introduction of Goods and Service Tax (GST). Accordingly, the rates were to be fixed at ₹913.40, ₹1,304.75 and ₹1,641.90 per meter after adding OHC/CP and labour cess. Since the rates of DI (K7) pipes were decreased, the SE, PH Division should have recovered the differential cost from the contractors as per Clause 31(a) of the contract. The SE made payments to the contractors as of September 2021, without recovering the differential cost of pipes. For laying of 41,075.50 meter of 100 mm (Ø), 14,563 meter of 150 mm (Ø) and 1,816 meter of 200 mm (Ø) pipes which resulted in an excess payment and undue benefit to the contractors of ₹1.05 crore as detailed in ***Appendix- XXXIV***.

In reply, the SE stated (November 2021) that the rates of non-scheduled items had been approved by the Engineer-in Chief (PH) considering the lowest market rates. The reply of the SE was not acceptable since differential cost of DI (K7) pipes should have been recovered by the SE as per the Clause 31(a) of the contract as the cost of pipes were decreased after introduction of GST.

The matter was intimated to the Government during March 2022. Their reply was awaited (February 2024).

7.8 Avoidable extra expenditure

Shifting of underground reservoir from Balugaon to INS Chilika for water supply project led to laying of excess pipelines resulted in avoidable extra expenditure of ₹5.16 crore.

Para 3.2.7 of the OPWD code stipulates that while obtaining technical sanction it should be ensured that proposal is structurally sound and that the estimate is accurately calculated and based on adequate data and such sanction will be accorded by the competent authority. For acquisition of land, Para 3.6.3 stipulates that when the land is required for public purposes, the officer in charge of public works should in the first instance, consult the Collector of the district and obtain from him the fullest possible information as to the probable cost of the land per acre. Para 3.7.4 also stipulated that no work should be commenced on land which has not been duly made over to PWD by a responsible civil officer.

Scrutiny of records of Executive Engineer (EE), Public Health (PH) Division, Bhubaneswar revealed that the Administrative approval (AA) was accorded (September 2013) for ₹40.86 crore for water supply to Balugaon and Banapur Notified Area Council (NAC) from Salia reservoir. The work comprised of

[206] Basic cost is the cost approved by the EIC, PH and the overhead charge and Contractor's profit.

establishing a distribution system of rising main[207] from treatment plant to Banapur and Balugaon Under Ground Reservoirs (UGR) at ₹16.31 crore. The estimate of the work was technically sanctioned (May 2013) by the Chief Engineer (CE), Public Health (PH) (Urban), Odisha for ₹41.06 crore. The scope of the work provided for construction of two underground reservoirs (UGR) at Balugaon and Banapur and for supplying water to the NACs by laying of pipe line for 20.473 km which included line from treatment plant to UGRs and from main distribution point to Balugaon and Banapur UGRs respectively. As per the DPR, the sites were suitable for construction of UGRs at Banapur and Balugaon. The AA and DPR of the work provided for ₹50 lakh to be paid for land acquisition for the above water supply projects.

Audit observed that scope of work for laying of rising main from treatment plant to Banapur and Balugaon UGRs was changed midway during execution (July 2017). Without attributing any reasons, the proposal for change in location for UGR from Chilika to Balugaon was sanctioned (March 2018) by the CE, PH, (Urban) Odisha. Instead of the work of installation of UGR at Balugaon, it was installed near INS Chilika with revised scope for laying of pipeline for 28.142 km[208] instead of 20.473 km[209]. The revised work was technically sanctioned (July 2017) by CE, PH (Urban) for ₹17.04 crore which comprised of rising main from treatment plant to Banapur and Balugaon UGRs. The work was awarded (July 2017) for ₹16.64 crore being 2.36 *per cent* less than the estimated cost put to tender for completion by April 2018. The work was completed (March 2018) with payment of ₹17.11 crore being 2.78 *per cent* excess over the agreement value with construction of UGRs at Banapur and INS Chilika and laying of pipe line for 28.142 km for the above UGRs.

Audit noticed that as against 20.473 km of laying of pipe line for the water supply project from treatment plant to UGRs, the SE laid the pipe lines for 28.142 km to INS Chilika instead of originally proposed route to UGR at Balugaon. This resulted in excess laying of 7.669 km pipe with an avoidable extra expenditure of ₹3.36 crore. Further, due to shifting of UGR from Balugaon to INS Chilika, the department had to lay a pipeline from Chilika to Balugaon which was avoidable. On repeated request by Audit for producing records pertaining to laying of new pipeline from INS Chilika to Balugaon, the department furnished estimates and agreements connected to the pipeline works costing ₹1.80 crore.

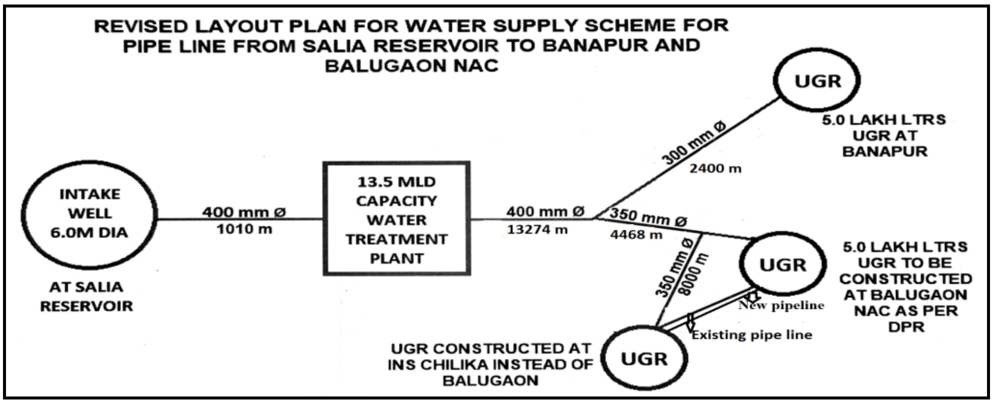
During joint physical verification (October 2021), it was found that a new distribution pipeline was laid alongside of old NH-5 from INS Chilika to Balugaon NAC. The revised rising main sketch was as follows:

---

[207] Rising main is pipeline carrying water from pump to storage tank.

[208] Laying of pipeline of 28.142 km = 400 mm for 13.274 km, 350 mm for 12.468 km and 300 mm dia MS pipe for 2.400 km

[209] Laying of pipeline of 20.473 km = 400 mm for 13.177 km, 350 mm for 1.325 km and 300 mm dia MS pipe for 5.971 km



Thus, change of scope of work midway without valid reasons, resulted in avoidable extra expenditure of ₹5.16 crore (₹3.36 crore + ₹1.80 crore) in laying of water supply pipelines.

In reply, the SE stated (January 2022) that the land which was initially selected for construction of reservoir was within the paddy field and would fully submerge during rainy seasons. Due to submergence, construction of reservoir was not possible and ground water table was found to be at a higher level. There was also no approach to the site for which the site was considered unsuitable for construction of reservoir. As the land was available near INS Chilika and suitable for construction, UGR was shifted to INS Chilika.

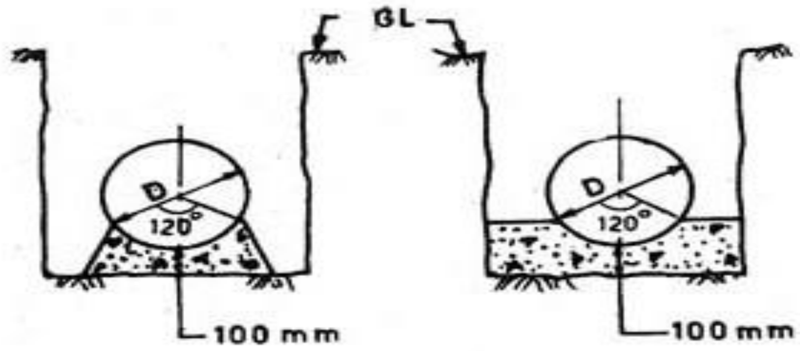
The reply was not acceptable since the revised estimate did not disclose the reason for change in scope of the work for shifting of the UGR from Balugaon to INS Chilika. Besides, the reply of SE was contradictory to the assurance given by the then EE (May 2013) confirming the suitability of land in Balugaon for UGR after survey and investigation and estimating the work accordingly, for technical sanction. Moreover, the SE could not provide any documentary evidence for non-availability of suitable land at Balugaon. Further, SE stated that the water supply to Balugaon NAC was conveyed through existing pipeline which was factually incorrect as a new pipeline had been laid alongside the old pipeline which was passing through paddy fields. This was already confirmed during the course of joint physical verification by Audit and officers of the Department (October 2021). Despite this lapse which resulted in avoidable expenditure, no action was taken against the concerned officers.

7.9 Wasteful Expenditure

Construction of pedestals for a water supply project, without obtaining permission from the Department of Water Resources (DoWR) led to change in the scope of work, rendering expenditure of ₹91 lakh wasteful.

Paragraph 3.4.10 of the OPWD code stipulates that the estimate for a work should be prepared in the most economic manner. Paragraph 2.2.62 of the OPWD code envisage the particular attention of the Sub-divisional Officer for timely and careful field survey and investigation; preparation of plans and estimates, including revised estimates, for all works to be done in his

Subdivision. As per Paragraph 4.2.1 of IS 5822:1994[210], where rock or boulders are encountered during laying of a pipeline, the trench is to be trimmed to a depth of at least 100 mm below the level at which the bottom of the barrel of the pipe is to be laid and it is to be filled to a like depth, with lean cement concrete, or with non-compressible material (like sand of adequate depth), to give a curved seating, as shown in the drawing below.



Source: IS 5822:1994, Code of Practice for laying of Electrically Welded Steel Pipes for Water Supply.

As per uniform guidelines for granting Right-of-Way (ROW) on Government land, issued (February 2014) by the Revenue & Disaster Management Department, Government of Odisha, for obtaining ROW permission, for laying underground pipelines shall file application, before the Competent Authority. The officers authorised by different administrative departments to file requisition for alienation of Government land under the Odisha Government Land Settlement Act, 1962 will be declared as the designated officers.

Scrutiny of records of the Water Corporation of Odisha (WATCO), Cuttack, revealed that the Engineer-in-Chief (EIC), Public Health (PH)-Urban, Odisha, had technically sanctioned (June 2016) a drinking water supply project "Improvement of Water Supply to Cuttack Town (Phase-I B)" for ₹22.06 crore. The work was awarded (July 2016) to a contractor on a lump-sum contract (turnkey basis), with an agreement cost of ₹22.06 crore, for completion by July 2018. Subsequently, the estimates were revised (November 2021) to ₹33.35 crore. The agency had executed the work and had been paid ₹30.20 crore (as of June 2022).

Audit observed that, considering the condition of the site, the H&UD Department had allowed (November 2017) an additional work of ₹5.55 crore which included construction of RCC pedestal[211] for laying of MS pipeline from intake well to water treatment plant (WTP). The land was under the possession of the Department of Water Resources (DoWR). However, H&UD Department did not obtain permission from DoWR. Further, the Executive Engineer (EE), PH Division No-1, Cuttack, had applied (February 2018) for

[210] Code of Practice for laying of Electrically Welded Steel Pipes for Water Supply issued by Bureau of Indian Standards (BIS).

[211] RCC pedestal is a compression element provided to carry the loads from supported elements like columns, statues etc. to footing below the ground.

permission from DoWR for laying of 1,300 mm dia MS (Mild Steel) pipeline, from the proposed intake well site near Chahata to the Mahanadi Bridge site at Sector - 12 of the Cuttack Development Authority (CDA). While accorded permission (August 2019), DoWR had stipulated that the pipelines be laid underground, sufficiently away from the toe of the flood protection embankment-cum-ring road at the extreme end of the land, so that the Hydraulic Gradient (HG) line[212] in the countryside would not be disturbed. The Superintending Engineer (SE), PH Circle, had submitted revised estimates (July 2019), to EIC, PH, Odisha, amounting to ₹27.53 crore, due to change in the scope of work, which included concrete block against RCC pedestals.

Despite the condition laid down by DoWR, to ensure laying of underground pipelines, the EE, PH Division No. I, Cuttack, drawn up (December 2019) a supplementary agreement of ₹2.62 crore with the agency, which included construction of RCC pedestal for ₹1.02 crore to be used above the ground. The agency had constructed RCC pedestals for laying of MS pipeline of a cost of ₹91 lakh, as of January 2020, which was unwarranted and had led to wasteful expenditure.

The General Manager (GM), WATCO, Cuttack, stated (February 2022) that 109 concrete blocks were constructed for the pedestals which were utilised as RCC blocks without construction of new blocks. The reply was not acceptable, since the GM had executed the supplementary agreement for construction of RCC pedestals, despite the stipulation of the DoWR that underground pipeline be laid.

The matter was brought to the notice of the Government, in January 2023; reply was awaited (February 2024).

STEEL AND MINES DEPARTMENT

7.10 Non-realization of dead rent and consequential interest

Failure to raise demand for levy of dead rent and consequential interest from non-working mines, resulted in non-realization of revenue of ₹2.06 crore.

Section 9(A) of the Mines and Mineral (Development and Regulations) Act, 1957, stipulates that the holder of a mining lease shall pay to the State Government, every year, dead rent[213] at such rate, as may be specified, for the time being, in the third schedule, for all the areas included in the instrument of lease. Further, as per Section 64(A) of the Mineral Concession Rules, 1960, the State Government may charge simple interest, at the rate of 24 *per cent* per annum, on any rent due to that Government, under the Act, from the sixtieth day of the expiry of the date fixed by the Government for payment of such rent, until payment of such rent is made.

[212] A line joining the points of highest elevation of water in a series of vertical open pipes rising from a pipeline in which water flows under pressure.

[213] Dead Rent means the minimum amount payble in a year by the person granted with a mining lease under these rules irrespective of the fact as to whether or not he operates/ could operate the area fully or partly.

Scrutiny of mining lease records (March 2022) of the Deputy Director of Mines (DDM), Sambalpur, revealed that Mahanadi Coalfields Limited (MCL) had acquired (May 1973) four mining leases[214]. Production of coal, in these mines, had been stopped and all the four mines had remained non-working, since various dates[215] ranging from 24 September 1999 to 11 August 2015. As such, the MCL was required to pay dead rent on these non-working mines from the date of stoppage of production. It was, however, observed that, instead of collecting dead rent from the due dates, the DDM had raised demand for dead rent only for the period starting from January 2020 onwards. The dead rent along with interest, payable by the lessee, worked out to ₹2.06 crore as detailed in the ***Appendix-XXXV***.

After this was pointed out by Audit, the DDM raised (June 2022) demand notice for ₹2.04 crore calculating the interest upto December 2021 against the lessee. The demanded revenue was yet to be collected (March 2023).

7.11 Non-realisation of additional amount and short realisation of royalty on sale of coal

Failure to realise additional amount from OCPL and incorrect assessment of royalty on the sale of coal, resulted in non/ short realisation of Government dues of ₹19.88 crore.

A. Non-realisation of additional amount

Section 8 (5) of the Mines and Minerals (Development and Regulation) (MMDR) Amendment Act, 2021, stipulates that, any lessee may, where coal is used for captive purpose, sell such coal, up to fifty *per cent* of the total coal produced in a year, after meeting the requirement of the end use plant linked with the mine, in such a manner as may be prescribed by the Central Government and on payment of such additional amount as specified in the Sixth Schedule. The Central Government may, by notification in the official gazette and for reasons to be recorded in writing, increase the said percentage of coal that may be sold by a government company. As per the Sixth Schedule of the said Act, the lessee, in addition to royalty, is required to pay additional amount, equivalent to the royalty payable. The above amendment came into force with effect from 28 March 2021.

Scrutiny of records (March 2022) of the Deputy Directors of Mines (DDM), Rourkela and Sambalpur mining divisions, revealed that the Ministry of Coal, Government of India (GoI) had allotted the Manoharpur coal block, under the Rourkela mining division, in favour of M/s Odisha Coal and Power Limited (OCPL), in August 2015 and the Talabira II and III coal mines, under the Sambalpur mining division, in favour of M/s Neyveli Lignite Corporation (NLC), in May 2016. In the case of Manoharpur coal block, the coal was to be utilised by another State Government Public sector undertaking, *viz.* Odisha Power Generation Corporation Ltd. (OPGC). In the case of Talabira II and III coal mines, the coal was to be utilised for captive consumption. Subsequently, due to delay in operation of OPGC power plants, which were to be served by

[214] Orient Colliery, New Gandaghora Colliery, Gandaghora Colliery and IB River Colliery
[215] Orient Colliery (26 November 2014), New Gandaghora Colliery (11 August 2015), Gandaghora Colliery (30 November 2013) and IB River Colliery (24 September 1999)

the Manoharpur coal block and availability of excess coal at the Talabira II & III coal mines, GoO granted permission to OCPL (December 2019) and NLC (September 2020) to sell the excess produced coal to M/s Mahanadi coalfield Limited (MCL).

Audit observed that the lessees *viz.* OCPL and NLC, had sold 26,70,020 MT of coal to MCL, during the period 28 March 2021 to 30 September 2021. As such, they were required to pay additional amount of ₹48.40 crore on such sale.

After this was pointed out by Audit in March 2022, NLC deposited (June 2022) the additional amount of ₹33.77 crore. However, in respect of OCPL, DDM, Rourkela, had not taken any steps (March 2022) to realise the additional amount of ₹14.63 crore, as detailed in ***Appendix-XXXVI***. Both the lessees were paying the additional amount from October 2021 onwards, regularly.

B. Short-realisation of royalty

Coal production from the Manoharpur coal block commenced from October 2019. However, sale of coal, from the blocks/ mines, to the power plant (OPGC), could not be made by OCPL, on account of delay in construction of the required rail transport system, due to land acquisition issues. GoO allowed (December 2019) OCPL to sell the produced/ excess coal to M/s Mahanadi Coalfields Limited (MCL). After obtaining the necessary permission from GoO, OCPL signed an agreement (December 2019) with MCL, for sale of the produced/ excess coal from the Manoharpur Coal Block. The agreement stipulated that MCL would purchase coal from OCPL at the *power price*[216] and sell the same to its customers at the *non-power price*[217], as notified by Coal India Limited time to time. Royalty on OCPL coal was to be charged, from MCL, on *power price* and MCL was to collect royalty from its customers at *non-power price*. OCPL was to deposit the royalty collected from MCL with GoO and MCL was to deposit the differential royalty, between the *non-power price* over *power price,* as OCPL had already charged royalty from MCL on the *power price*, at the time of sale to MCL. As per notification (May 2012) of the Ministry of Coal, the rate of royalty on coal was to be 14 *per cent ad-valorem* on the price of coal, as reflected in the invoice, excluding taxes levied and other charges.

Further, as per section 9C (4) of the MMDR Amendment Act, 2015, the holder of a mining lease shall pay a sum equivalent to two *per cent* of the royalty to the National Mineral Exploration Trust (NMET). As per Rule 9 (2)(b) of Odisha District Mineral Foundation Rules, 2015, all holders of major mineral leases shall pay, in addition to royalty, 10 *per cent* of the royalty as contribution towards DMF, if the lease has been granted through auction. Scrutiny of records (March 2022) of DDM, Rourkela, revealed that MCL had sold 22,45,782 MT of coal received from OCPL, to its customers, at *non-power price,* during the period December 2019 to March 2021. However, it did not deposit the differential royalty, between the *non-power price* over the *power price*, on the quantity of coal sold. The differential royalty and

[216] The rate of coal charged on sale to power sector.

[217] The rate of coal charged on sale to non-power sector. The non-power price is higher than the power price.

contribution to District Mineral Foundation Fund and National Mineral Exploration Trust, on the aforesaid quantity of coal sold by MCL, at the *non-power price*, worked out to ₹5.25 crore, as detailed in ***Appendix-XXXVII***.

Thus, failure to realise additional amount on the sale of coal and short realisation of royalty, resulted in non-recovery of Government dues, amounting to ₹19.88 crore.

The matter was intimated to the Government during November 2022. Their reply was awaited (February 2024).

TOURISM DEPARTMENT

7.12 Irregular excess payment to foreign company

Non-deduction of Tax at Source, on payment made to foreign company, resulted in irregular excess payment of ₹23.50 lakh to the Odisha Tourism Development Corporation.

Under Section 195 of the Income Tax (IT) Act, 1961, any person responsible for paying amounts to a foreign company, shall, at the time of payment of such amounts to the payee, deduct income tax thereon, at the rate of 20 *per cent* of the payable amount.

Scrutiny of records (August 2021) of the Tourism Department showed that, with the objective of promoting Odisha Tourism, the Department of Tourism, Government of Odisha, had entered into an agreement (July 2018), with a foreign company, *viz*. TripAdvisor Singapore Pte. Ltd. (TripAdvisor), for hosting of advertising content, as provided by the department, on the internet web-portal of TripAdvisor. Para 5 (a) of the agreement stipulated that the department would be invoiced by TripAdvisor on a monthly basis and the department could deduct, from the amounts payable to the TripAdvisor any withholding income tax amounts, as required by local laws, and remit the same to local tax authorities.

TripAdvisor promoted Odisha Tourism on its internet web-portal for a period of six months, from August 2018 to January 2019, and raised (September 2018 to February 2019) invoices on monthly basis, for a total amount of ₹94 lakh. While sanctioning (November 2019) the amount, the department directed M/s Odisha Tourism Development Corporation Ltd. (OTDC) to release the sanctioned amount, on behalf of the Department, as payment from the Government Treasury, to a foreign account, was not possible. As per the IT Act, OTDC was required to deduct tax at source (TDS), at the rate of 20 *per cent* of the total bill amount of ₹94 lakh, *i.e.*₹18.80 lakh, remit the same to the IT Department and make the balance payment of ₹75.20 lakh to TripAdvisor. However, OTDC paid (January 2020) ₹94 lakh to TripAdvisor, without deducting TDS.

Subsequently, OTDC submitted (February 2020) a proposal of ₹1.18 crore, which included ₹94 lakh towards payment made to TripAdvisor and TDS of ₹23.50 lakh[218], at the rate of 20 *per cent* to the department, for reimbursement.

[218] (₹94,00,000/80 x 100) x 20 *per cent* = ₹23,50,000

The department paid (May 2020) ₹1.18 crore to OTDC, without analysing the terms and conditions of the agreement.

Thus, owing to non-deduction of TDS from the total bill amount, in contravention of the terms of the agreement and the IT Act, irregular excess payment of ₹18.80 lakh was made to TripAdvisor, which resulted in excess payment of ₹23.50 lakh to OTDC which was a gross failure on the part of department.

Accepting the Audit observation, the Government stated (December 2022) that TripAdvisor had been asked for refund of the excess amount, paid to it, towards Income Tax.

WORKS DEPARTMENT

7.13 Undue benefit to contractors

Excess payment to contractors in deviation from Schedule – H of Engineering, Procurement and Construction Contracts led to undue benefit of ₹11.29 crore to contractors.

Schedule - H of the Standard Engineering, Procurement and Construction (EPC) contract prescribed by Ministry of Road Transport and Highways vide circular dated 28.11.2018 provides the *pro rata* payment for execution of different items of road works like earth work, Sub-base (GSB), Base course (WMM) and wearing course.

Scrutiny of records at three Public Works Divisions[219] revealed the following irregularities.

i) The work of widening and strengthening of existing single lane to two lane with paved shoulder from 246.100 to 292.164 and from 307.934 km to 314.130 for a length of 51.146 km road with other ancillary works like bridges, culverts *etc*., of NH 53 was awarded (October 2015) for ₹152.92 crore for completion by July 2017. The agency had completed 41.437 km of road with payment of ₹130.06 crore as of July 2019. The balance road work for 9.709 km could not be completed due to non-acquisition of private land for 15.67 ha as of March 2022. The Schedule -H of the contract provided for *pro-rata* payment for construction of 51.146 km road. Hence, for the constructed road of 41.437 km, ₹76.93 crore was payable as detailed in **Table No.7.2**:

Table No. 7.2: Details of *pro-rata* cost payble to contractor

(₹ in crore)

A	Total cost of the project (as per contract agreement)	152.92
B	*Less* Cost of other works (21.46 *per cent*) (Service roads, Slip roads, Toll plazas, Roadside drains, retaining wall *etc*.)	32.32
C	Net cost of Road Work (A-B)	120.60
D	*Less* Cost of ancillary works of Road (21.35 *per cent*)	25.64

[219] i) NH Division, Pallahara ii) Sundargarh R&B Division and iii) NH Division, Berhampur

	(Widening and repair of culverts, new culverts and minor bridges)	
E	*Prorata* cost of the total road of 51.146 kms. (C-D)	94.96
F	Cost of the Road work executed (41.437 kms.) (94.96 crore/ 51.146*41.437)	76.93
G	Amount paid for road work	80.28
H	Amount payable for road work	76.93
I	Amount paid in excess	3.35

(Source: Information collected by Audit)

As indicated in the above table, the EE paid ₹80.28 crore to contractor for execution of 41.437 km road against admissible amount of ₹76.93 crore excluding culverts, minor bridges and other ancillary works leading to excess payment of ₹3.35 crore**.** The contract was foreclosed (May 2019) by the CE, NH, Odisha for want of land acquisition. The performance security was refunded (May 2019) to the contractor. As such, possibility of recovery of excess payment made to the contractor was remote.

The Government stated (May 2022) that the Schedule "H" appended to the agreement had two distinct and independent sub-items such as widening and strengthening of existing road for 48.636 Km and new two lane re-alignment bypass for 2.51 km. As such, payment for executing 41.437 km was made to the agency taking the total agreement quantity as 48.636 km for ₹80.28 crore. Moreover, as per the contract agreement the agency was entitled for a termination payment at 10 *per cent* of the value of work left unexecuted due to foreclosure. But as per the instruction of the Ministry, the agency had submitted an undertaking not to claim the said termination amount which sums up to ₹3.34 crores.

The reply was not tenable, as the payment should have been released on *pro-rata* basis for 41.437 km out of 51.146 km. Since *pro-rata* payment as provided in Schedule - H of the agreement was not invoked, excess payment of ₹3.35 crore led to undue benefit to the contractor. Whereas, the matter of submission of undertaking for not claiming termination amount is concerned, that was a separate issue and should not have been negotiated/adjusted by making payment for the unexecuted work.

ii) In another work for widening of two lane road to four lane road from Bankibahal to Kanika Railway siding in Sundargarh district for ₹199.36 crore, the scope of work provided for execution of nine meters carriageway width (including paved shoulders) in each side. It was observed that the contractor had constructed 8.75 meters of carriageway width in each side of road resulting in lesser execution of carriage width by 0.25 meter. The pro-rata payment for construction of road proper was 84.33 *per cent* i.e. ₹168.12 crore, however, full payment was made to the contractor. This resulted in undue benefit of ₹4.67 crore to the contractor since EE did not check and measure the work before release of payments to the contractor. Neither any accountability was fixed (May 2021) on the EE responsible for such lapses of supervision, nor was cost reduced for change in scope of work as per Article 13 of the contract.

The Government stated (May 2022) that the design had been made for nine meters carriageway width from the edge of the 'I kerb' to the edge of the paved shoulder. However, during execution, the design of the medium kerb had been changed from 'I kerb' to 'L kerb'. The actual measurement should be inner edge of 'L kerb' which is nine meter from the edge of the paved shoulder.

The reply was not acceptable since the design of flexible pavement and the scope of work in sanctioned estimates and agreement provided for execution of nine meter of carriageway in each side excluding kerb and the carriageway measurement had been certified by the authority engineer for 8.75 meter.

iii) Another work of widening of existing single lane to two lane carriageways with paved shoulder from 118.400 km to 173.400 km (55 km) of NH - 59 was taken up (October 2015) at a cost of ₹237.60 crore for completion by April 2018. The CE, NH, Odisha sanctioned (March 2018) for the above road from 118.370 km to 173.370 km considering the length of 55.850 km instead of 55 km. The length of 850 meter was considered as missing link without any justification. Audit found that two other works[220] on both sides of this stretch were already being executed without any gap and hence, approval of additional length of 850 m was not in order as execution of this additional length was physically not possible. Accordingly, the payment was made to the contractor which led to excess payment and undue benefit to the contractor of ₹2.87 crore.

The Government stated (May 2022) that though the project consists of improvement from 118.400 km to 173.400 km as per the agreement, the work actually started from 118.370 and ended at 174.220 km (total length of 55.850 km).

The reply was not acceptable as the CE, NH had sanctioned (March 2018) the revised scope from 118.370 km to 173.370 km (55 km) and another two works on both sides of this stretch were already being executed without any gap in length, hence, execution of road work from 118.370 km to 174.220 km with additional length of 850 meter against the actual length of 55 km was incorrect.

The Government may fix responsibility on the persons responsible for excess payment made to the contractors and recover the excess amount from the concerned contractors.

7.14 Excess payment to contractor

Excess payment to contractor in deviation to Article 13 of Engineering, Procurement and Construction Contract led to undue benefit of ₹1.43 crore to contractor.

As per Article 13.1.2 and 13.1.3 of Engineering, Procurement and Construction (EPC) contract stipulates that for change of scope (CoS) of work, the contractors were to submit the CoS proposal supported with relevant details and the amount of reduction/increase in contract price to the Authority.

[220] Two agreements were executed for i) Widening and strengthening of existing single lane to two lane carriage way with paved shoulder from km 68.260 mtrs. to km 118.370 mtrs and ii) from km 173.370 mtrs. to km 229.400 mtrs. of NH – 59 on EPC mode

Scrutiny of records at Bhubaneswar R&B Division No. II revealed that the estimates for construction of High Level (HL) Bridge over river Kushabhadra at 12 km of Balakati - Balianta road was technically sanctioned (December 2013) by CE (DPI & Roads) for ₹25.15 crore under State Plan. The scope of work as per sanctioned estimates provided for construction of HL Bridge for 400 meter length. The scope of the work was revised by the Executive Engineer (EE) at tendering stage for construction of 380 meter length Bridge. The EE did not reduce the estimated cost despite reduction of length of the bridge. The work was awarded (November 2014) on EPC mode with the agreement cost for ₹28.50 crore for completion by November 2016. The agency had completed the works with payment of ₹28.50 crore by May 2018. Thus, non-reduction of cost of the bridge as per revised scope of work either at tendering stage or after agreement as per article 13 of the contract led to excess payment of ₹1.43 crore including tender premium.

The Government stated (May 2022) that during execution, number of span was increased from 10 to 11 and approach road from 189 meter to 300 meter which necessitated increased cost.

The reply was not acceptable as the scope of work had been reduced during tender process from 400 meter to 380 meter, the estimates should have been re-casted and got approved by CE. Extra payment made to the contractor needs to be recovered and action needs to be taken against the officers responsible for such extra payment.

7.15 Avoidable extra cost due to laxity in survey and investigation

Laxity in conducting survey and investigation led to avoidable extra cost of ₹9.54 crore.

The para 3.4.10 (i) of the OPWD Code envisages that the Divisional Officer[221] should record a certificate that he has personally visited spot and prepared the estimate using the sanction schedule of rates and providing for the most economical and safe way of executing the work while submitting the estimates for technical sanction by SE/CE. Further, Para 3.2.7 of the OPWD code also stipulates that while obtaining technical sanction it should be ensured that proposal is structurally sound and that the estimate is accurately calculated and based on adequate data and such sanction will be accorded by the competent authority. The Superintending Engineer (SE) and Executive Engineer (EE) were to certify the site visit for survey and investigation conducted before preparation of the estimate for the work and technical sanction.

- **Construction of Rail Over Bridge**

The work of "Construction of Rail Over Bridge (ROB) at Kudiary near Jatni at Reduced distance (RD) 454.939 km in between station Retanga and Khurda Road on Howrah–Madras main line" was technically sanctioned (September 2014) by Chief Engineer (Design Planning & Investigation and Roads). The technical sanction of the work was based on the certificate of the EE and SE that they had visited the site and were fully satisfied with the survey,

[221] As per Para 2.2.25 of OPWD Code Vol. I, the Executive Engineer of the division is known as Divisional Officer

investigation and also the plan and design. The work was awarded (July 2015) to a contractor[222] at a cost of ₹38.35 crore for completion by July 2017. The original Detailed Project Report was technically sanctioned with a provision of four spans of 37.24 m length and 9 spans of 37.24 m length with landing of ROB in Sitaram Chhak (Junction) at Khurda side and Kudiary Chhak at Pipili side, respectively.

The local public demanded for shifting the landing of ROB from Sitaram Chhak junction due to traffic density. Further, Dy. Chief Engineer/ Construction- I, East Coast Railway during August 2015 and November 2015 requested the department to consider 51.48 meters span of the railway portion of ROB. This resulted in the need for change in design and estimates. As a result, the progress of the work was delayed. In August 2018, due to disproportionate progress of work, the Department rescinded the original contract after execution of works valuing ₹10.80 crore (28 *per cent*) leaving the value of leftover work at ₹27.55 crore (₹38.35 crore - ₹10.80 crore).

The revised estimates for the balance work (with extension) was sanctioned (November 2018) for ₹63.11 crore (cost increased by 129 *per cent*) with further additions of quantities and extra items. The estimated cost of the work was therefore increased by ₹35.56 crore. The work was awarded (March 2019) to a contractor for ₹71.94 crore (₹64.23 crore plus 12 *per cent* GST) for completion by September 2020 and the work is in progress. Due to change of scope and revision of estimates at post tender stage and award of balance work based on the revised estimates, the agreement cost of the balance work was increased to ₹71.94 crore including tender premium and GST. Audit, however, worked out cost of escalation considering the present design with revised quantity at originally agreed rates. Audit arrived at the cost of the left over work at ₹64.28 crore including tender premium as detailed in ***Appendix-XXXVIII***. Thus, laxity of EE/SE in foreseeing the landing of approach of ROB at a junction with heavy traffic density and without conducting proper survey and investigation resulted in avoidable extra cost of ₹7.66 crore (₹71.94 crore - ₹64.28 crore).

The Government in Works Department accepted (May 2022) that there was possibility of traffic collision due to landing of ROB at Sitaram Chhak. Considering the safety of public and traffic problem, extension proposal of ROB was designed to extend the ROB at Khurda side and was approved by competent authority. The change of alignment and the span length at Railway portion was also increased in the revised estimate.

The reply of the Government is not acceptable as EE/SE failed to consider the possibility of traffic collision due to landing of RoB at Sitaram Chhak. Lack of survey and investigation of construction site resulted in avoidable extra cost and burden to the State exchequer.

- **Construction of two High Level Bridges[223]**

Two bridges at RD 5.080 km and 11.050 km of Dharmasala to Kabatbandha road in Jajpur district were technically sanctioned (May/ June 2016) by the

[222] M/s Panda Infra Projects (India) Private Limited
[223] High Level Bridge is a bridge which carries the roadway above the highest flood level of a channel.

Superintending Engineer (SE), Cuttack R&B Circle, Cuttack for ₹7.20 crore. The works were awarded to a contractor in November 2016 for ₹6.82 crore for completion by October 2017. As per soil investigation report, considering the soil strata, the pile load capacity is derived to ensure structural stability and would be incorporated in the General Arrangement Drawings (GAD). It was also mentioned in the above report that while erection of piles, the executives shall ensure the pile load capacity as per GAD has been fulfilled by conducting safe load test.

During visit (November 2017) of work site, the SE found that out of 68 piles in both the bridges, 50 piles were completed without conducting the pile load tests by the contractor which was supposed to be conducted in the presence of EE/SE. Erection of piles without safe load test[224] would consequently weaken the bridge and possibility of collapse later.

Photo No.27 - Bridge at chainage 5.080 km

Photo No.28 - Bridge at chainage 11.050 km

Due to failure of EE in conducting load test**,** on the direction of the SE, pile load test was belatedly conducted (January 2018) and it was found that the safe load was 162.70 and 130 tonnes against the requirement of 230 and 280 tonnes provided in original GAD for both the bridges at RD 5.080 km and RD 11.050 km respectively. Accordingly, the Chief Engineer (Design) revised (July/ August 2018) the pile arrangements from 32 to 56 for HL Bridge at 11.050 km and from 36 to 40 for HL bridge at 5.080 km along with structural design of the piles.

In the meantime, the stipulated period of completion of the works was over and the contractor opted not to apply for extension of time. The contractor applied (November 2018) for closure of contract after execution of work valued at ₹1.55 crore. The Executive Engineer (EE), Panikoili (R&B) Division, Panikoili submitted (April 2019) the closure proposal for both the bridges to SE, Cutttack (R&B) Circle which was approved in July 2019. The value of left over work was ₹5.28 crore. Hence, completion of 50 piles without conducting safe load test resulted in change in structural design along with pile arrangement and consequent closure of the contract midway.

The revised estimates for the balance portion of both the works were sanctioned (September/ November 2020) by the SE for ₹7.32 crore and were

[224] Safe load test is a process to determine the safe load carrying capacity of the structure/ bridge.

awarded (February/ July 2021) to two contractors for ₹7.28 crore to be completed by November 2021/ June 2022. Due to change of scope and revision of estimates at post tender stage and award of balance work based on the revised estimates, the agreement cost of the balance work was increased to ₹8.16 crore including tender premium/ rebate and GST[225]. Audit, however, worked out the cost variation, had the revised design been finalised within the stipulated completion period and executed by the original contractor with revised quantity at originally agreed rates, the cost of the leftover work with the revised design would have been ₹6.28 crore including tender premium/ rebate as detailed in ***Appendix- XXXIX.***

Audit observed that non-conducting of safe load tests for piles indicates the negligence of engineers which entail fixing of responsibility. Had timely supervision by SE not been done, the bridges would have been constructed without safe load test, consequently weakening of the bridge. Thus, failure of EE/ SE in conducting safe load tests of piles and finalising the design within the contractual period resulted in avoidable extra cost of ₹1.88 crore (₹8.16 crore - ₹6.28 crore). Besides, the construction of HL bridges was delayed by more than three years from the stipulated date of completion of the original works.

The Government stated (May 2022) that the drawing was revised with increase in number of piles from 68 to 96 and the excess expenditure was incurred due to increase of piles in both the bridges. The reply was not acceptable, as per original plan based on pile load capacity, only 68 piles were to be constructed. However, due to failure of the EE, in conducting safe load test of piles resulted in increase the number of piles from 68 to 96 which led to avoidable extra cost on execution through fresh tender.

Thus, had proper survey and investigation of construction site and pile load test conducted as envisaged in the GAD, extra cost of ₹9.54 crore (₹7.66 crore + ₹1.88 crore) on re-tender of ROB and two HL bridges was avoidable. Despite this serious lapse, no responsibility was fixed on the concerned officers.

7.16 Avoidable extra expenditure due to crust failure

Provision of inadequate crust thickness of a heavy traffic/ axle load road, led to crust failure within 16 months and required further overlaying at an avoidable extra expenditure of ₹3.14 crore.

Indian Road Congress (IRC-37:2001/2012) specifies the thickness of pavement depending on the strength of sub grade soil, expressed in terms of California Bearing Ratio (CBR)[226] and on the basis of projected number of commercial vehicles which would ply on the road calculated as Million Standard Axles (msa). IRC also recommended dense bituminous macadam (DBM) binder course for roads designed to carry more than five msa and

[225] HL Bridge at 5.080 km (- 5.11 percentage tender rebate) and HL Bridge at 11.050 km (+ 4.99 percentage tender premium)/ GST at 12 *per cent*

[226] The CBR test is a penetration test used to evaluate the subgrade strength of roads and pavements. The results of these tests are used with the curves to determine the thickness of pavement and its component layers. This is the most widely used method for the design of flexible pavement.

bituminous concrete (BC) wearing course for roads designed to carry more than 10 msa. IRC 82-1982 recommends that a common defect in bituminous surface is the formation of cracks[227]. The cracks are caused by insufficient bitumen layer or excessive overloads by heavy vehicles and the unsuitable condition in the subgrade or lower layer of the pavement. The thickness of the pavement therefore has to be carefully decided as per CBR and msa to avoid the crust failure. Further, Para 6.5 of the IRC 82-1982 recommends for periodical renewal for traffic more than 450 Commercial Vehicles Per Day (CVPD) with surface dressing after three years. According to MoRTH guidelines (September 2002), periodical renewal of a road is expected to last at least for a period of three years and 25 mm of SDBC/BC can be laid for high traffic roads having CVPD more than 1500. BC shall be laid only where the existing surface has BC as wearing course.

Scrutiny of records of Executive Engineer (EE), Rourkela R&B Division revealed that the Chief Engineer (DPI&Roads) had technically sanctioned (May 2014) a road project for improvement of Koira-Dengula-Tensa-Barsuan-Kaleiposh road from 15 km to 24.025 km under State Plan for ₹21.59 crore. The estimates of the above work *inter-alia* provided that the road had soil CBR two to four *per cent* and traffic was 38 msa. Against the total requirement of crust thickness of 805[228] mm as per IRC 37-2001/2012, the EE provided total crust thickness of 650[229] mm. This resulted in inadequate provision of crust thickness by 155[230] mm for such a heavy traffic axles load road having traffic more than ten msa. With this inadequate crust provision, the work was awarded (April 2015) to a contractor for an agreement value of ₹23.53 crore for completion by April 2016 being nine *per cent* excess over the corresponding estimated cost. The above estimate was revised (November 2016) by CE (DPI&R) to ₹23.62 crore with revision of bituminious layer of 75 mm thickness of BM and 40 mm thickness of SDBC for 4,871.80 cum and 2,356.34 cum respectively. The work was completed with payment of ₹23.61 crore with extension upto November 2016.

Audit observed that due to faulty estimation of SDBC instead of BC as per the IRC/ MoRT&H guidelines, the road was not commutable. As per DPR, this road was designed for traffic for 10 years, however, due to poor quality of construction, in less than 16 months, the crust failure and pot holes were detected on road surface during the survey conducted in March 2018. The Superintending Engineer, Keonjhar (R&B) Circle, Keonjhar technically sanctioned (March 2018) for periodical repair of the above road stretches for ₹3.29 crore with further provision for laying of 50 mm thickness of BC for 1,794.33 meter and 25 mm thick mastic asphalt wearing course for 4,936 square meter. The work was awarded (September 2018) with an agreement

[227] As per IRC 82-1982: Cracks on the roads are different types such as i) hair line crack ii) alligator crack iii) longitudinal crack iv) Edge crack, v) shrinkage crack and reflection crack.

[228] 330 mm of Granular sub-base (GSB), 250 mm of Wet Wix Macadam (WMM), 130 mm of Dense Graded Bitumious Macadam (DBM) equal to 185 mm of BM and 40 mm of bituminious concrete (BC)

[229] 300 mm of GSB, 250 mm of WMM, 75 mm of BM and 25 mm of Semi Dense Bituminious Concrete (SDBC)

[230] 30 mm of GSB, 110 mm of BM and lower specification of wearing course of SDBC (that too short by 15 mm) instead of BC

cost of ₹3.14 crore for completion by March 2019. The work was completed with payment of ₹3.14 crore as of September 2019.

Audit further observed that while sanctioning the estimate, CE (DPI&Roads) neither considered the axle load[231] on this road nor the EE had adopted proper design plate[232] as per IRC-37-2001/2012 according to CBR and traffic msa of this road which resulted in crust failure of this road. Thus, due to inadequate provision of crust thickness for granular sub-base and bituminious layer for heavy traffic/ axle road led to crust failure within 16 months and warranted periodical repair and renewal work at a cost of ₹3.14 crore which was avoidable.

The Government stated (May 2022) that to avoid huge initial investment and to account unpredictable growth in mining traffic the flexible part of the crust (BM and SDBC) was decided to be provided on a stage construction basis and hence was designed for a period of three years only from the date of completion of the project.

The reply was not acceptable since despite clear guidelines of IRC, the department failed to construct the crust thickness as per the IRC requirement. Due to this failure, the road which was supposed to function for 10 years as per the DPR, it could not even survive for 16 months. Inadequate crust provision of granular sub-base and bituminous surfacing for traffic for 38 msa traffic led to crust failure and incurred ₹3.14 crore for periodical repair and renewal work within 16 months of its completion. Despite this serious lapse, no action was taken against the concerned officer.

7.17 Non-deduction of voids led to excess payment

Non deduction of voids in gabion box walls led to excess payment of ₹81 lakh to the contractor.

As per para 3.4.10 of OPWD code, the estimate for a work should be prepared in most economical manner. The design calculation sheet for gabion boxes appended to the sanctioned estimate provides that void in gabion boxes[233] was 30 *per cent*. As per IRC 56-2011, gabions and mattresses are used for slope erosion protection with 30 *per cent* voids and the structures offer free drainage providing higher bank stability. IRC-SP-116-2018 also stipulates that voids/ porosity of the filled gabion box shall be around 30 to

Photo No.29 - Use of Gabion Boxes as retaining wall in road works

[231] Axle load refers to the total weight bearing on the roadway for all wheels connected to a given axle

[232] Design plate means the major component in the road construction consisting of different layers of road like sub-base, base and bituminous surface

[233] The gabion mesh boxes or crates provide stability and rigidity to the structure on the backfill. The GI wire mesh also superimpose reinforcement to the structure which gives additional stability. This type of structure is called earth reinforcement retaining wall.

40 *per cent*.

Scrutiny of the records of National Highway (NH) Division, Sambalpur revealed (November 2019) that the work 'Protection of Khad side of Kalinga Ghat from 83.00 km to 93.00 km on NH -157 in the State of Odisha' was awarded (November 2016) for ₹11.56 crore. The work was awarded at 11.61 *per cent* less than the corresponding estimated cost of ₹13.08 crore put to tender for completion by July 2017. As of November 2021, the work was completed with payment of ₹11.28 crore.

As per the agreement, 13,965 cum of gabion boxes were to be executed for ₹5.17 crore with packing of hard granite stone of 200 mm in Polyvinyl chloride (PVC) coated high zinc galvanized steel wire boxes of 6 m x 1 m x 1 m. However, it was observed that appropriate clause was not included in the agreement for deduction of 30 *per cent* of voids from the total executed volume of stone in the gabion boxes to arrive the actual quantity of stone used for packing.

Further, Audit noticed that the agreement quantity of 13,965 cum for gabion boxes was reduced to 7,603 cum as per the deviation statement (January 2018) for ₹2.51 crore. The reduction of gabion box wall was for non-execution of Khad side wall. The agency had executed 6,841.95 cum of gabion box with payment of ₹2.26 crore as of July 2019 without deduction of voids in contravention to technical note appended to the sanctioned estimate and IRC provisions. As such, excess payment of ₹81 lakh was made to the contractor for non-deduction of voids of 2,052.59 cum i.e 30 *per cent* of 6,841.95 cum of gabion wall.

The Government stated (March 2022) that gabion box structures were designed considering porosity of 30 *per cent* as per Clause 6.6 of IRC SP-116-2018 and estimate had been prepared following MoRTH specifications and Standard Data book. The analysis had been prepared taking into account 200 mm stone boulders for six cum quantity in addition to 1.2 cum stone spalls of minimum size 25 mm as per Data Book. In Data book for analysis of rates, no such provision of deduction for voids is mentioned for the said items.

The reply of the Government is not acceptable as IRC-SP-116-2018 stipulates that voids/ porosity of the filled gabion box shall be around 30 to 40 *per cent*. Further, as per the IRC provision, the gabion boxes were to be filled with smaller size of stones to fill up the voids. However, Audit scrutiny revealed that the agreement did not provide any filling of voids with spall of minimum size 25 mm and no separate measurement and payment was also made for use of 25 mm of spall for filling of voids in gabion boxes as required under MoRTH/IRC specifications. Therefore, EE should have deducted the void/ porosity in gabion boxes as the structure of gabion boxes were prepared taking into account only with 200 mm stone boulders as per the agreement.

7.18 Avoidable extra cost for excess provision of bituminous surfacing and granular sub base

Adoption of excess thickness for bituminous surfacing and granular sub base in deviation to IRC provision led to avoidable extra cost of ₹4.35 crore.

Para 3.4.10 of Odisha Public Works Department (OPWD) code stipulates that the estimate should be prepared in most economical manner. Indian Road Congress (IRC-37:2001/2012) specifies the thickness of pavement depending on the strength of sub grade soil, expressed in terms of California Bearing Ratio (CBR)[234] and on the basis of projected number of commercial vehicles which would ply on the road calculated as Million Standard Axles (msa). The thickness of pavement of road is designed to ensure sufficiency of load bearing capacity of the road in accordance with expected traffic. As per Para 4.2.3.1 of IRC-37-2001, the bituminous surfacing consists of either a wearing course[235], or a binder course[236] *plus* a wearing course depending upon the traffic to be carried out. The Dense Bituminous Macadam (DBM) binder course is recommended for roads designed to carry traffic more than five msa. As per the above IRC, the DBM binder course may be preceded by a 75 mm thick Bituminous Macadam (BM) and the DBM layer may be reduced by 55.85 mm due to addition of BM layer.

Scrutiny of records of SE, Sambalpur (R&B) Division No. I and EE, Kalahandi (R&B) Division revealed (September/ December 2021) that the Chief Engineer (DPI & Roads) technically sanctioned the estimates of two road projects (names noted in **Table 7.3)**, for ₹76.76 crore between February and August 2019 under Central Road Fund[237] (CRF) Assistance. The works were awarded between January 2020 and June 2021 for ₹65.26 crore stipulating for completion of the work by September 2021 and December 2022. The works were in progress and payment of ₹49.85 crore was made to the contractors as of December 2021.

Further, scrutiny of records revealed that provision of excess crust thickness was made in deviation to IRC provisions (IRC 37-2001/2012) as detailed in **Table 7.3**:

Table 7.3: Composition of the pavements in widening of roads

Sl. No.	Name of the project	Length	Composition of the pavement		Excess
			As per IRC	As executed	
1.	Widening and strengthening of Talpali Hiraloi Balam Barghat Godhidhipa road (MDR)	1.30 km to 38.00 km (CBR :8 MSA: 5)	GSB 150 mm WMM 250 mm DBM 50 mm BC 25 mm	GSB 200 mm WMM 250 mm DBM 50 mm BC 30 mm	GSB 50 mm BC 05 mm
			Total 475 mm	Total 530 mm	Total 55 mm

234 The CBR test is a penetration test used to evaluate the subgrade strength of roads and pavements. The results of these tests are used with the curves to determine the thickness of pavement and its component layers. This is the most widely used method for the design of flexible pavement.

235 The most commonly wearing course are Surface dressing, open graded premix carpet, mix seal surfacing, semi dense bituminous concrete and bituminous concrete.

236 The binder courses are bituminous macadam and dense bituminous macadam.

237 As per the CRF guidelines, GoI funding is 100 *per cent.*

Sl. No.	Name of the project	Length	Composition of the pavement		Excess
			As per IRC	As executed	
2.	Widening and strengthening of Mading Pastikudi Deypur road to two lanes with paved shoulders	0 km to 18.953 km (CBR :5 MSA: 17)	GSB 300 mm WMM 250 mm BM 75 mm DBM 34.15 mm BC 40 mm	GSB 300 mm WMM 250 mm BM 100 mm DBM 50 mm BC 40 mm	BM 25 mm DBM 15.85 mm
			Total 699.15 mm	Total 740 mm	Total 40.85 mm

(Source: Information collected by Audit)

As indicated in the table, excess execution of crust thickness of the pavements resulted in extra expenditure of ₹1.48[238] crore and ₹2.87[239] crore.

The Government in Works Department stated (May 2022) that the adopted CBR value of the road was six *per cent* not eight *per cent*. Accordingly, the crust composition 535 mm was provided for road having CBR six *per cent* and msa five. The reply was not acceptable since sanctioned estimates of the above road provided CBR as eight and msa five which was technically sanctioned by the Chief Engineer (DPI & Roads). Further, the Government stated that for wear and tear of the bituminous surface increases exponentially on traffic intensity, it was necessary to provide 50 mm of DBM preceded by 100 mm of BM in the above stretch instead of providing 90 mm of DBM. The reply was not acceptable since IRC provides modification of the DBM binder course to be reduced by 55.85 mm of DBM. Moreover, as per IRC, thickness of 90 mm DBM was required for road having CBR five and traffic msa 17.

7.19 Undue benefit to contractor

Adoption of faulty analysis for calculation of item rates of excavation of foundation in laterite rock inflated the estimated cost by ₹5.83 crore, leading to undue benefit of ₹4.64 crore to the contractor, out of which ₹1.23 crore was recovered from the contractor at the instance of Audit.

Para 3.4.10 of the Odisha Public Works Department (OPWD) Code stipulates that estimate should be prepared in the most economical manner and should be based on the current Schedule of Rates (SoR)/Analysis of Rates (AoR). In the AoR, there was provision for the item of work "Excavation of foundation of laterite rock or any hard rock other than granite or disintegrated rock removed by chiseling including dressing and leveling the bed not exceeding 1.5 m depth and depositing the soil", for which 3.74 man-mulias[240] were required for excavation and transportation, within the initial lead of 50 m. The cost for excavation of laterite rock would be ₹1,169.20 per cum, including 20 *per cent* towards excavation for foundation, 7.5 *per cent* each towards over-head charges and contractor's profit and one *per cent* labour cess thereon. For excavation beyond 1.5 m lift[241], there was provision for additional labour of 4.1 labourers per 100 cum, in the AoR.

---

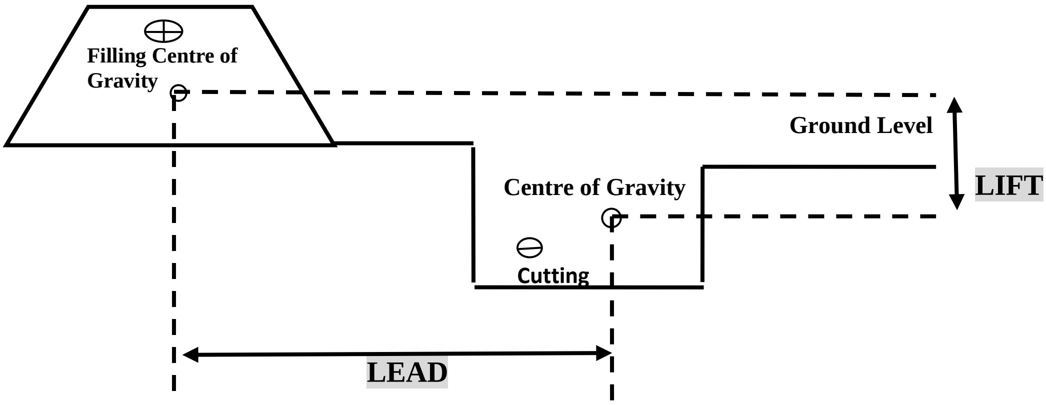
[238] For excess GSB provided of 50 mm: (6,287.39 cum X ₹1,725.30 per cum) = ₹1,08,47,633 + for excess BC of 5 mm: (953.19 cum provided X ₹6,871.90 per cum) = ₹65,50,266 = ₹1,73,97,899 less 14.99 *per cent* tender premium = ₹1,47,89,954

[239] For excess DBM of 15.85 mm provided: (1,612.58 cum X ₹12,952 per cum) = ₹2,08,86,136 + for excess BM of 25 mm provided: (2,645.24 cum X ₹4,865.20 per cum) = ₹1,28,69,622 = ₹3,37,55,758 less 14.99 *per cent* tender premium = ₹2,86,95,770

[240] The male labour is termed as man-mulia in the AoR.

[241] Lift means vertical distance for removal with reference to ground level

Image No.2 - Image showing cross section for excavation of earth work



Scrutiny of works estimates and agreements (February 2021), of the Bhubaneswar R&B Division No. II, revealed that the work "Construction of Judicial Court Complex at Bhubaneswar," had been technically sanctioned for ₹ 79.77 crore, by the Chief Engineer (Building), in May 2018. The work was awarded to a contractor for ₹74.73 crore, being 6.32 *per cent* less than the estimated cost in November 2018, for completion by November 2020. The work could not be completed in time and was in progress, with payment of ₹32.89 crore having been made (July 2022). The work *inter-alia* provided for excavation of laterite rock, within the initial lead of 50 m and lift of 1.5 m for 4,664.01 cum at ₹1,169.20 per cum, with one additional lift for 4,664.01 cum at ₹2,237.40 per cum, two additional lifts for 4,198.65 cum at ₹3,305.60 per cum and three additional lifts for 629.80 cum at ₹4,373.80 per cum.

While computing the item rate for extra lift, the EE adopted the above 4.1 labourers per one cum instead for 100 cum in deviation to AoR. During execution of the work, the quantities, as per the first interim deviation Report (December 2019), were increased to 8,396.40 cum, 10,495.50 cum, 10,495.50 cum and 7,871.63 cum, respectively. The increase in quantities was due to decrease in the quantity of excavation of ordinary soil and hard rock.

Further, test-check of estimate of the items of above work revealed that, in the analysis of item rates, the division had incorrectly added the cost of 4.1 labourers per cum, instead of 100 cum, for each additional lift. Due to unwarranted excess provision of labour charges for each additional lift, the estimated cost was inflated by ₹5.83 crore. The undue benefit of ₹4.64 crore, including tender premium and GST, had already been passed on to the contractor (July 2022), as detailed in the **Table 7.4**.

Table 7.4: Extra cost due to faulty calculation of item rate

Sl. No.	Excavation work of laterite rock	Quantity excavated (in cum)	Extra lift	Rate as per AoR (Per cum) (in ₹)	Rate applied (Per cum) (in ₹)	Differential extra rate applied (Per cum) (Col. F - E) (in ₹)	Extra payment (in ₹) (Col 8 = 4 x 7)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*
1	Up to 1.5 m depth	7,742.67	-	1,169.20	1,169.20	-	-
2	From 1.5 to 3 m	7,733.94	1	1,179.88	2,237.40	1,057.52	81,78,778
3	From 3 to 4.5 m	7,733.94	2	1,190.57	3,305.60	2,115.03	1,63,57,532
4	From 4.5 to 6 m	6,206.73	3	1,201.25	4,373.80	3,172.55	1,96,91,139
	Total	**29,417.28**					**4,42,27,449**
	Including Tender premium	Less 6.32 *per cent*					4,14,32,275
	Total Including 12 *per cent* GST						**4,64,04,148**

While accepting the audit comments, the Government Stated (February 2023) that, the bonafide mistake in unit rate for excavation for foundation in laterite rock or any hard rock (other than granite or disintegrated rock) has been rectified by the Technical Committee headed by SE, Central (R&B) Circle, Bhubaneswar (April 2021). Accordingly, the excess payment to contractor amounting to ₹1.23 crore was recovered out of the excess amount of ₹3.23 crore from 10th to 19th RA bill and the balance amount would be recovered from the rest of the RA bills. However, the Government need to ensure the recovery of the excess paid amount and the department to be more vigilant while processing the payments.

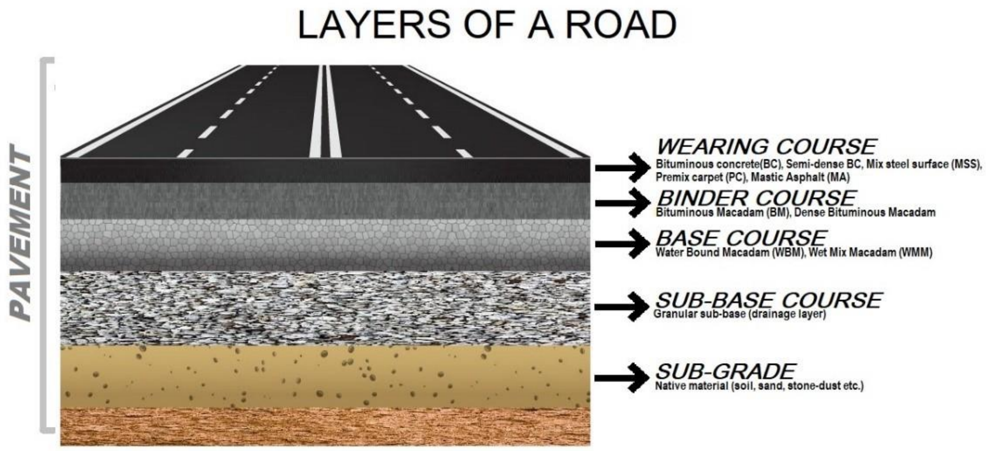
7.20 Wasteful expenditure

Laxity of departmental officers in preparation of estimates for an existing road led to wasteful expenditure of ₹3.54 crore.

Para 3.4.10(i) of the Odisha Public Works Department (OPWD) Code required a certificate that the Divisional Officer had personally visited the spot and prepared the estimate using the sanctioned Schedule of Rates (SoR) and provided for the most economical and safe way of executing the work. The works department follows the specifications of the Indian Road Congress (IRC) for designing new roads, as well as for improvement of existing roads. As per IRC specifications, the pavement thickness of a road depends on the load bearing capacity of the soil, expressed in terms of the California Bearing Ratio (CBR) and also on the basis of the projected number of commercial vehicles which would use the road, calculated as Million Standard Axles (msa). For design of strengthening measures or overlays for existing pavements, the IRC-2001/2012 recommended to follow IRC-81-1997 for Benkelman Beam Deflection Technique (BBDT) or more suitable procedure based on evaluation of properties of pavements layers by Falling Weight Deflectometer (FWD[242]) as per IRC 115-2014.

[242] Falling weight deflectometer. As per IRC 115-2014, Falling Weight Deflectometer (FWD) is an impulse-loading device in which a transient load is applied to the pavement and the deflected shape of the pavement surface is measured.

Scrutiny of estimates and agreements of road works (September 2021) at the R&B Division, Sundargarh, revealed that the work "widening and strengthening of Gopalpur-Chhatisgarh Boarder Road with paved shoulder from 4.700 km to 28.960 km," under the Inter-State Connectivity Scheme, for the financial year 2017-18, financed by the Government of India (GoI), was technically sanctioned for ₹53.80 crore, in March 2018. The work was awarded to a contractor for ₹39.78 crore, in January 2019, for completion by July 2020. The traffic survey of the road was conducted (September 2017) and the design of the crust was prepared according to IRC 37-2012, considering the design traffic as 20 msa and CBR 6, for which the IRC has specified pavement thickness of 260 mm granular subbase (GSB) 250 mm, wet mix macadam (WMM), 90 mm dense bituminous macadam (DBM) and 40 mm bituminous concrete (BC). As the road was an existing road, the Division provided 260 mm GSB and 250 mm WMM in the widening portion and only 100 mm WMM in the existing carriage way and estimates were prepared (December 2017), considering the existing crust thickness as 310 mm without BBDT or FWD test for evaluation of the structural strength of the existing crust.



During execution of work (2019), the existing carriageway was seen to have settled down/ been distressed, forming large depressions, with a number of potholes and the GSB and WMM layer of the road was virtually chipped off from the road surface, due to plying of heavy vehicles on the road. The work was executed for 5.050 km (from 4.700 km to 9.750 km), as provisioned in the DPR, incurring expenditure of ₹3.54 crore and was closed in January 2020. Fresh estimates of rigid[243] pavement for the same road work renamed as "Improvement to Duduka-Gopalpur-Toparia Road to two lane with paved shoulder from 6.206 km to 28.564 km," amounting to ₹146.51 crore was prepared (January 2021) and awarded (July 2021) for an amount of ₹102.65 crore excluding GST, with the construction period of project being 24 months.

In this regard, Audit observed the following irregularities:

- Due to laxity of the departmental officers, the original estimates had been prepared without considering the actual crust thickness of the existing road and the thickness had been certified as 310 mm without any tests being conducted on the existing road.

[243] Rigid pavement road is a cement concrete road.

- As the road surface had failed during the execution of work, a fresh traffic census was conducted (November 2019) and the work was stopped (December 2019).
- As per the Chief Engineer (DPI & Roads) instructions (January 2020), FWD test was conducted and revised estimates were prepared by proposing a Cement Concrete (CC) road, with provision of GSB and Dry Lean Concrete (DLC)[244] in the entire stretch of the road. The work was awarded (July 2021) without foreclosure of the original agreement (September 2021).
- It was observed, during joint physical inspection of site (September 2021) by the Audit team and departmental Engineer, that there was no existing crust and the road was in a distressed condition.

Photo No.30 - Gopalpur-Chhatisgarh Boarder Road

- A road portion, from 4.800 km to 6.206 km, where the work was executed under the Inter-State connectivity scheme, was taken over by the Mahanadi Coal Limited (MCL), as this portion fell under a coal bearing area. MCL was constructing a new four lane bypass road, which starts from 4.700 km and meets at 6.700 km.

Thus, the preparation of faulty estimate, by not considering the actual crust thickness requirement for the existing road, led to wasteful expenditure of ₹3.54 crore.

The Government stated (February 2023) that due to plying of heavy loaded mining vehicles day and night on the road, the existing carriage way was settled down/ distressed forming large depressions with number of potholes. Further Government stated that the Chief Engineer, DPI & Roads inspected the road (January 2020) and observed regarding the inadequate crust provided in original estimate as per the requirement of the new traffic census and instructed to stop the pavement work due to the failure of the road crust. Considering the new traffic census, Sundargarh R&B Division had proposed for construction of four lane road instead of two lane road with concrete pavement under EPC mode, and the work was under progress. The reply was not acceptable as FWD test had not been conducted before preparation of the original estimates for the work due to which, the road was distressed, forming large depressions during execution which led to wasteful expenditure incurred on bituminous pavement.

244 Dry Lean Concrete: Dry lean concrete (DLC) works as a concrete subbase course over which pavement quality concrete slabs rest

7.21 Excess payment to contractor

Non-reduction of cost of work under negative change of scope of contract led to excess payment of ₹3.71 crore.

As per Article 13.1 of the Engineering Procurement and Construction (EPC) contract format prescribed by MoRTH (March 2019[245]), the authority may modify/ alter the work (change of scope), within a period of six months from the date of commencement of the work. The contractor has to submit the said change of scope of work either involving additional cost or reduction in cost to the authority.

Scrutiny of works estimates and agreements (March 2022) at Ganjam (R&B) Division No.I, Berhampur, revealed that the work "widening and strengthening of Berhampur-Tamana-Chikiti-Surangi-Mandarda Road," from 0.0 to 01.0 km and from 2.0 km to 32.0 km, under the State Highways Development Programme (SHDP), was awarded to a contractor, in May 2014, for ₹43 crore and was to be completed by May 2016. The work was completed (December 2019) and final bill for ₹37.74 crore was paid (February 2020).

From the detailed estimates of the work, it was noticed that, as per the original scope, the contractor had to execute 2,600 m of drain (both sides), in the road portion, from 19.300 km to 21.200 km and 300 m breast wall[246]. Audit noticed that the scope of the work was reduced by 1.9 km[247] during execution of the work. Hence, there should have been a corresponding reduction in the length of the drain by 2,600 m and protection work by 300 m. Further, it was noticed that, in 76 Cross Drainages (CDs) length of 657.45 m had also not been deducted from the total road length as these CDs were constructed separately.

During joint physical verification (JPV) of the road (March 2022), by the Audit team, with the Departmental Engineer, it was noticed that no gabion wall had been provided in both sides of the three reaches of the road length from 20.900 to 21.850 km. The details of original scope of works and works not executed by the agency are given in the **Table No.7.5** below:

Table No. 7.5 : Details of scope of work and non exeuction

Item	Original scope of works for execution	Total cost of work	Works not executed	Total works not executed (In meters)	Cost (₹ in crore)
Gabion wall	1.150 km	2.32	From 20.900 to 21.200 km= 0.300 km (LHS[248]) From 21.200 to 21.850 km = 0.650 km (LHS) From 21.300 to 21.500 km = 0.200 km (RHS[249])	1,150 m	2.32
Breast wall	0.800 km	0.37	From 20.900 to 21.200 km = 0.300 km (RHS)	300 m	0.13
Drain	7.820 km	2.03	From 19.300 to 20.100 km = 1.600 km From 20.200 to20.700 km = 1.000 km	2,600 m	0.67
CD works	657.45 m	0.59	Non-deduction from road length works executed	657.45 m	0.59
	Total	**5.31**			**3.71**

245 Notification No.RW/NH-37010/4/2010-EAP(Printing) Vol.IV dated 05 March 2019
246 A wall at the downstream end of the road known as the breast wall to support and hold the naturally occurring slope of the earth at the hill face.
247 From 19.300 to 21.200 km of road
248 Left Hand Side
249 Right Hand Side

Although, the contractor had not executed the 1,150 m gabion walls, 2,600 m of drain and 300 m of protection wall, the cost of ₹3.12 crore had not been reduced under change of scope of work and non-deduction of 657.45 m length of CDs, (amounting to ₹59 lakh) from the total road length resulting in excess payment of ₹3.71 crore to the contractor as calculated in the table.

The Government stated (February 2023) that under EPC mode of contract, payment was made considering the whole project length as a single unit and the design and engineering responsibilities lies with the EPC contract and detailed quantity, detailed crust thickness for different stretches, type of CD structures and their length *etc.*, under the project was not exactly known during the execution of the agreement. Hence payment schedule was prepared taking the whole project length and any reduction from the road length was done accordingly. The reply was not tenable, since the sanctioned estimates provided details of CD works, to be done in different stretches of the road. Non-deduction of the length of drain and protection wall work in the said portion, the Gabion box work and length of CDs led to excess payment.

7.22 Idle expenditure due to abandonment of work in midway

Improper survey and investigation before commencement of work and adoption of faulty design for a bridge, led to abandonment of road and bridge work, resulting in idle expenditure of ₹1.41 crore.

Para 3.4.10 (i) of the Odisha Public Works Department (OPWD) Code, Volume I, envisages that the Divisional Officer[250] should record a certificate that he/she has personally visited the spot and prepared the estimate using the sanctioned schedule of rates and by providing for the most economical and safe way of executing the work, while submitting the estimates for technical sanction by the Superintending Engineer (SE)/ Chief Engineer (CE). Para 3.2.7 of the OPWD Code also stipulates that, while obtaining technical sanction, it should be ensured that the proposal is structurally sound and the estimates are accurately calculated and based on adequate data. Further, as per Para 3.7.4 of the above Code, no work should be commenced on land which has not been duly made over to PWD by a responsible civil officer.

Scrutiny of records (March 2022) of the Superitending Engineer (SE), Puri R&B Division, revealed that the estimate for the work "Widening of Road from Khandia Bandha to NH by-pass from 0.00 km to 3.500 km" had been technically sanctioned in October 2016, by the Chief Engineer (Design, Planning, Investigation and Roads), for ₹8.87 crore. The work was awarded (December 2016) to a contacting agency, for ₹8.32 crore, being 6.20 *per cent* less than the estimated cost put to tender, with the date of commencement and the stipulated date of completion being 23 December 2016 and 22 February 2018, respectively.

Audit observed that the EE and SE (R&B) Circle, Khordha, certified in the estimates, that they had visited (September 2016) the site and were fully satisfied about the survey and investigation of the work. The work was started (December 2016) according to the agreement. The Assistant Executive

[250] As per Para 2.2.25 of OPWD Code Vol. I, the Executive Engineer of the division is known as the Divisional Officer

Engineer (AEE), Roads Sub-Division No. II, Puri, visited (April 2018) the work site and reported that, during the excavation of the riverbed, for the foundation of the proposed bridge over Musa Nalah, 'huge mud with slushy soil' had come out after a depth of one meter and filled the trench, owing to which further excavation could not be executed. The Department changed the scope of the 'Box Cell Bridge (BCB)[251]' with raft foundation', to a 'High Level Bridge (HL Bridge)[252] with pile foundation'. The agency did not agree to execute the work further, due to non-availability of land for the remaining portion of roads and change of design of the BCB to HL Bridge. As such, the agency, after executing a road portion of only 514 metres where land was available, requested (August 2019) for closure of the contract. The contract was closed (October 2021), with the approval of the Tender Committee, headed by the Engineer-in Chief (Civil), after execution of work costing ₹1.41 crore.

The Superintending Engineer (R&B) Puri intimated to Audit that the road work had to be stopped, as BCB was not technically viable and it needed to be redesigned as a H.L. Bridge with Pile foundation, with enhanced project cost, along with land acquisition for the road portion.

Further, during joint physical verification (March 2022) of the road, Audit observed that only 514 metres of the road, from the end point (NH side), had been completed, with seven meters width. The balance road had not been completed and the HL Bridge over Musa Nalah, in the starting point, had also not been constructed.

Photo No.31: Ucompleted portion of road and bridge of Khandia Bandha to NH by-pass (NH-316)

Photo No.32: Completed portion of road - Khandia Bandha to NH by-pass (NH-316)

Thus, improper survey and investigation of road and adoption of faulty design of BC Bridge (which later on changed to HL Bridge) resulted in abandonment of the work after execution of only 514 metres of road, out of the total road length of 2,304 metres[253]. As such, the intended purpose of having a direct link to Puri Town, from NH 316, by widening of the road with double lane (seven metres) could not be achieved, resulting in idle expenditure of ₹1.41 crore.

---

[251] A box cell bridge is a tunnel-like structure built under roadways or railways to provide cross drainage from one side to the other parts.

[252] A high level bridge is a bridge which carries the roadway above the Highest Flood Level (HFL) of a channel (including afflux) or the high tide level, with appropriate vertical clearance.

[253] SE, R&B Division, Puri intimated the Additional Chief Engineer (Roads), Bhubaneswar (August 2021) that the length of the road in the title of the project was erroneously mentioned as 0.00 km to 3.50 km instead of 0.00 km to 2.304 km.

The Government stated (February 2023) that the box cell bridge designed with raft foundation was not found to be suitable by the higher authorities due to presence of deposit earth accumulated from storm drainage water discharge. So design of bridge, from raft foundation to pile foundation with construction of high level bridge, had to be changed. The Government further stated that some stretches of existing road required widening involved acquisition of private land. The land acquisition issue was likely to be resolved and also invitation of tender for the balance work was under process. The reply was not tenable, as it did not address the issue of faulty design of the bridge and non-acquisition of private land, which led to abandonment of the work.

7.23 Inflated estimates led to undue benefit to contractors

Incorrect adoption of transportation cost of GSB, on conveyance of material inflated the estimates of road works and resulted in undue benefit of ₹6.26 crore to the contractors.

As per para 3.4.10 of the Odisha Public Works Department (OPWD) Code, estimates should be prepared in the most economical manner. For this purpose, the Divisional Officer has to certify that he has personally visited the site and prepared the estimate using the sanctioned Schedule of Rates (SoR) and provided for the most economical and safe way of executing the work. Chapter III of the SoR provides the rates for conveyance of material on volumetric basis, including for loading and unloading. Further, Chapter IV of the SoR also provides the usage rates of service contract for plants and machinery, for transportation of soil, Granular Sub-base (GSB)[254], Wet Mix Macadam (WMM)[255], Hotmix *etc.*, in three methods, i.e volumetric, weighment and per hour basis. As per Chapter IV, the rate for transportation of GSB on volumetric basis is ₹20.87 per km by tipper truck having output of 5.5 cum, i.e at the rate of ₹3.79 per cum. Adding 10 *per cent* towards loading and unloading charges, the cost works out to ₹4.17 per km for one cum.

Scrutiny of estimates in five[256] R&B Divisions revealed that 13 works, of improvement, widening and strengthening of roads, were technically sanctioned by the Chief Engineer (DPI & Roads), for ₹257.88 crore. The works were awarded to contractors for ₹234.14 crore, between April 2017 and June 2021 for completion between February 2018 and December 2022. The works were in progress or had been completed, and the contractors had been paid ₹230.30 crore (August 2022). The works *inter alia* involved 1.39 lakh cum of compacted GSB, for which 1.78 lakh cum loose stone material was required. Payment of transportation charges of ₹10.37 crore had been made in this regard.

For GSB, the transportation cost should have been calculated on volumetric basis, as per Chapter - IV of SoR. Hence, the transportation cost should have ranged from ₹41.70 to ₹504.57 per cum, at lead distances ranging from 10 to

[254] Granular Sub-base: The well-graded material shall be laid in one or more layers as sub-base and upper sub-base (termed as sub-base) as necessary according to lines, grades and cross-sections.

[255] Wet Mix Macadam: Wet Mix Macadam includes laying spreading and compacting clean, crushed, graded aggregate and granular material, premixed with water to dense mass.

[256] Jharsuguda, Kalahandi, Rourkela, Sambalpur and Sundargarh

121 km, and the total transportation cost should have been ₹4.31 crore, for transportation of 1.78 lakh cum of stone material used for GSB as calculated by Audit. However, it was observed that the Divisions had wrongly adopted the transportation cost of materials on volumetric basis, as per Chapter – III of SoR, at rates ranging from ₹193.67 to ₹987.29 per cum, at lead distance ranging from 10 to 121 km, in the estimates instead of adopting the rates ranging from ₹41.70 to ₹504.57 per cum, as per Chapter - IV of SoR. Thus, incorrect adoption of transportation charges on conveyance of GSB, inflated the estimates. Higher estimated cost put to tender resulted in higher bids and award of contracts at higher costs. This led to undue benefit of ₹6.26 crore, including tender premium[257] already passed to the contractors, as detailed in ***Appendix- XL***.

The Government stated (March 2023) that Chapter IV of SoR provides hire charges of plants and machineries, where output of different machineries, unit and rates are mentioned. This chapter is meant for carriage of plant mixed materials, from plant to site, where all materials required for the items are mixed in WMM plant/HM plant and transported for laying. Further, the Government stated that for GSB items there are two types of methods i.e plant mixed method and mix in place method. MoRTH Date Book chapter 4 provides analysis for both plant mix method and mix in place method. The reply was not tenable since Chapter-IV of the SoR does not categorise the rates for transportation of materials by machineries only for plant mix method. Thus, non-adoption of transportation cost as per Chapter IV of the SoR for conveyance of GSB, inflated the estimates and higher estimated cost put to tender resulted in higher bids and award of contracts at higher costs led to undue benefit of ₹6.26 crore to the contractor.

7.24 Avoidable extra expenditure due to provision of excess width of road

Construction of two-lane road with paved shoulders, in deviation from IRC provisions, led to avoidable expenditure of ₹7.30 crore.

Para 3.4.10 of the Odisha Public Works Department Code (OPWD) stipulates that estimates should be prepared in the most economical manner. Para 7.2 of IRC-73-1980[258] stipulates that two-lane roads, having a seven meter wide carriageway with normal earthen shoulders, can cater to traffic upto 10,000 Passenger Car Unit (PCU) per day and roads of intermediate width i.e. having a carriageway of 5.5 meters with normal earthen shoulders, can cater to traffic upto 5,000 PCU per

[257] Tender premium refers to the amount of money a bidder quotes that is higher/ lesser than the estimated cost of a project.

[258] For purpose of design, the capacity (passenger car units per day in both directions) of different type of roads is calculated basing on Para 7.2 of IRC 73-1980.

day. Para 1.14(b) of IRC-SP-73-2007 recommends that the carriageway may be widened, by providing 1.5 meter wide paved shoulders on either side, when the average daily traffic exceeds 10,000 PCU in plain terrain or 8,000 PCUs in rolling terrain, on the basis of the twelve months' average in an accounting year.

Scrutiny of estimates of two[259] R&B Divisions revealed that the Chief Engineer (CE) (DPI & Roads)[260] had technically sanctioned two road works[261] (September 2016 and August 2019) for ₹62.02 crore and the works had been awarded (June 2017 and May 2020) to contractors for ₹48.66 crore with scheduled completion by September 2018 and June 2021. The estimates provided for execution of two-lane roads of seven-meter width with paved shoulders of 1.5 meters on both sides. The works were in progress, with payment of ₹50.29 crore having been made (January 2022).

Further, it was revealed that the two Divisions had assessed (September 2016 and December 2018) the weekly traffic density data, for the above roads, for determination of PCU and the PCU of the roads had been worked out as 2,394[262] and 4,699[263] per day. Since the PCUs were less than IRC specifications, the roads were not qualified for widening and strengthening to double-lane roads of seven-meter width with paved shoulders. As such, the technical sanctions accorded by CE, (DPI & Roads) were not correct and execution of two lane carriageway with paved shoulder in deviation from the IRC guidelines was unwarranted. Due to provision of paved shoulder, there was unwarranted excess provision of 31,306.20 cum Granular Sub-Base, Wet Mix Macadam, Dense Graded Bituminous Macadam and Bituminous Concrete resulting in extra expenditure of ₹7.30 crore, including tender premium, as detailed in ***Appendix- XLI.***

The Government stated (March 2022) that in respect of Dantiamuhan-Chitrada Road, the road condition was very bad during preparation of Detailed Project Report (DPR) and the existing crust of the road needed considerable improvement to double lane carriage way up to 10 meters to cater to growing traffic density up to 10,000 PCU. In respect of Rangadihi-Phuljhar-Balabhadrapur-Jagdala Dam road, the Government stated that the road passes through mining affected area and to provide the standard support to the road pavement and to provide storm water discharge away from the main lane, the provision of paved shoulder became essential.

---

[259] R&B Divisions, Keonjhar and Mayurbhanj

[260] Design, Planning and Investigation and Roads

[261] 1) Improvement to Rangadihi Phuljhar Balabhadrapur Jagadala Dam road (ODR) from 18/00 to 28/00 km under district Mineral fund in the distrct of Keonjhar (Keonjhar R&B Division) and 2) Widening & Strengthening of Dantiamuhan-Chitrada road (MDR) to two lane from 0/000 km to 12/000 km (Mayurbhanj R&B Division)

[262] Dantiamuhan-Chitrada road from 0/000 km to 12/000 km

[263] Rangadihi Phuljhar Balabhadrapur Jagadala Dam road (ODR) from 18/00 to 28/00 km under District Mineral Fund in the distrct of Keonjhar

The replies were not tenable, as the IRC guidelines provide for 1.5 meter wide paved shoulders on either side, when the average daily traffic exceeds 10,000 PCU in plain terrain and future traffic growth for 15 years had already taken into consideration, during calculation of msa[264] for the design of crust[265]. However, in these cases the PCUs of the roads were much below i.e, in the range of 2,394 (23.94 *per cent*) and 4,699 (46.99 *per cent*). Hence, provision of two-lanes with paved shoulders, for the aforesaid roads, was unwarranted and led to avoidable expenditure of ₹7.30 crore.

7.25 Avoidable expenditure

Utilisation of high cost sub-base material, despite availability of low cost slag, in the construction of road pavement, led to avoidable expenditure of ₹2.76 crore.

Para 3.4.10 of the OPWD code stipulates that estimate should be prepared in the most economic manner. Para 7.2.1.1 of IRC:37-2012 specifies that the sub-base[266] material may consist of natural sand, moorum, gravel, laterite, kankar, brick metal, and crushed stone, crushed slag and reclaimed crushed concrete/reclaimed asphalt pavement or combinations thereof, meeting the prescribed grading and physical requirements.

Scrutiny of estimates, analysis of rates and RA bills, of the Superintending Engineer (SE), Rourkela (R&B) Division, revealed that three road[267] works had been awarded, between December 2016 and December 2019 at a cost of ₹66.82 crore, for completion between March 2018 and December 2021. Out of these three road works, one work[268] with agreement cost ₹11.54 crore had been completed (March 2018), the remaining two road works were in progress and the contractors had been paid against RA bills of ₹85.24 crore (as of December 2022).

Further, it was observed that the estimates had been prepared by considering the Granular Sub-Base (GSB) (stone product) with lead[269] ranging from 60 to 133 km, for which payments had been made at rates ranging between ₹1,853.82 and ₹2,252.58 per cum. For execution of 29,592.50 cum GSB, for the sub-base of all the three roads, ₹6.20 crore had been paid to the contractors (as of December 2022).

---

264 Million Standard Axle (MSA) is used for the designing of the pavement. It describes about the number of commercial vehicles that would be occupying the road at the end of the design life of road.

265 Crust means the surface of the road

266 The sub-base is the layer of aggregate materials that lies immediately below the pavement and usually consists of crushed aggregate or recycled materials.

267 (i) Construction of Koida Bypass road from RD 0.0 to 8.00 km (ii) Widening to Tuniapalli Balia road from RD 14.800 to 27.450 km and (iii) Widening to Tuniapalli Balia road from RD 0.00 to 12.050 km

268 Widening to Tuniapalli Balia road from RD 14.800 to 27.450 km

269 Lead is the horizontal distance between the centre of excavation to the centre of deposition.

Audit observed that slag[270] a cheaper substitute of stone products for sub-base, was available free of cost, in the Rourkela Steel Plant site and it had earlier been used as sub-base material, by the same Division, in similar work[271]. The lead distance for slag ranged from 52 to 124 km. In the analysis of item rates of sub-base using slag, the proportion of slag was 90 *per cent* and quarry dust was 10 *per cent*. Considering the above ratio, the cost of the sub-base, using slag, would have ranged between ₹825.93 and ₹1,377.04 per cum. Despite the availability and economical cost of slag, the Superitending Engineer (EE), Rourkela (R&B) division, did not consider slag for use in the sub-base, in the estimates and opted for GSB, deviating from the OPWD code and IRC-37. Thus, the provision of GSB, which was a high-cost material involving extra lead charges in the estimates, instead of slag which was low cost material with lower lead charges, resulted in avoidable expenditure of ₹2.76 crore, on the work executed, (as of December 2022) as detailed in the ***Appendix -XLII.***

The Government stated that (February 2023) NIT, Rourkela was requested to determine the usability of the materials such as slag in sub-grade in construction of road. The report of NIT, Rourkela was not received for which use of slag as sub-base was not taken into consideration for further work. The reply was not tenable, since no feasibility check was required, because, as per IRC-37, slag was an accepted material for use in the sub-base of roads and it was cheaper, compared to stone products, as well as it was used in other road works.

7.26 Undue benefit to the contractor due to invitation of tender at inflated rate

Invitation of tender, at inflated estimated cost, led to undue benefit to the contractor of ₹18.94 crore.

Para 3.4.10 of the Odisha Public Works Department (OPWD) Code Vol. I, stipulates that estimates should be prepared in the most economical manner. Para 3.2.7 of the OPWD code stipulates that, for every work proposed to be carried out, a properly detailed estimate must be prepared for sanction of the competent authority and technical sanction of the estimate must be obtained before the execution of any work.

Scrutiny of estimates and tender files, at the R&B Division No. V, Bhubaneswar, revealed that the General Administration (GA) Department, Government of Odisha (GoO), had approved (September 2013) the construction of a High Rise Multistoried Office Building at Bhubaneswar (Kharvel Bhawan), to be completed within 24 calendar months after award of the work. The Chief Engineer (Buildings) (CE) prepared (September 2013) the estimate, at the rate of ₹35,000 per sqm, for construction of 30,000 sqm, along

[270] Slag is the glass-like by-product left over after the a desired metal has been separated from its raw ore.

[271] Patamunda to Koida road from 0.000 to 8.000 km vide Agreement No.29P1 of 2017-18

with lumpsum provision of ₹22 crore towards site development, planning, external electrification, water supply, sanitation and diesel genset, totaling ₹127.00 crore. Based on the above estimate, the tender was invited (September 2013) for ₹127.00 crore. The contractors submitted (December 2013) their bids, keeping in view the estimated cost of the high rise building, as mentioned in the tender. The financial bids were opened and evaluated (11 February 2014) by the tender committee. The lowest bidder submitted (20 February 2014) the negotiated bid price of ₹123.94 crore, being 2.41 *per cent* less than the estimated cost of ₹127 crore put to tender.

It was, however, revealed that, after invitation of tender, the rate of civil works of the above building work had been modified (14 February 2014), by the CE, to ₹30,000 per sqm. For construction of 30,000 sqm, therefore, the cost of construction worked out to ₹90 crore and total cost worked out to ₹105 crore including the lumpsum provision of ₹15 crore kept for other items of work. However, no corrigendum, for the modified estimated cost of the work, was issued to the bidders after invitation of tender.

Meanwhile, the tender committee meeting, held on 26 February 2014, evaluated the bid, by comparing the bid price submitted by the lowest bidder, with the modified cost of the work (₹105 crore). The accepted amount of ₹123.94 crore was evaluated as being 18.04 *per cent* in excess of the modified estimated cost of ₹105 crore. Reasons for not reducing the tendered amount, either through fresh tender, or through a corrigendum were not found available on record. Thus, the modified reduced rates were not put into effect and the agreement was entered into, based on the original higher estimates of tender. The work was awarded (March 2015) for completion by March 2017. It was subsequently completed (September 2019) and the contractor was paid ₹126.82 crore (April 2019) including service tax of ₹2.88 crore. Hence, laxity on the part of the CE, to prepare the estimates economically, by adopting the applicable rates on realistic basis, in contravention of the OPWD Code, coupled with non-invitation of fresh tenders after modification in the estimated cost, before the commencement of work, resulted in undue benefit to the contractor, amounting to ₹18.94 crore.

On this being pointed out, the Government stated (January 2023) that the departmental estimated cost was only indicative and is required to compare the offers of the bidders, to arrive at the considerable reasonability, for acceptance of the tender. The estimated project cost had got no bearing on the offer quoted by the intending bidders. The reply was not acceptable, as the departmental estimated cost was put to tender for which the bidders had got the scope to quote their rates accordingly, in the form of premium or discount.

FINANCE DEPARTMENT

7.27 Response to Audit

Timely response to audit findings is one of the essential attributes of good governance as it provides assurance that the Government takes its stewardship role seriously.

Accountant General (Audit-II), Odisha conducts periodical inspection of Government departments and their field offices to test check the transactions and verify the maintenance of important accounting and other records as per prescribed rules and procedures. These inspections are followed by Inspection Reports (IRs) sent to the Heads of offices and the next higher authorities. Defects and omissions are expected to be attended promptly and compliance reported to the Accountant General. A half-yearly Report of pending IRs is sent to the Secretary of each department to facilitate monitoring of the audit observations and their compliance by the departments. Apart from the above standing mechanism, Audit Committee Meetings, consisting of representatives of administrative departments, the office of the Accountant General (Audit-II) and representative from Finance Department are also held for settlement of outstanding IRs and paragraphs after detailed deliberation and verification of records.

A review of IRs issued up to March 2022 pertaining to 15 departments showed that 18,309 paragraphs relating to 3,796 IRs were outstanding at the end of June 2022. Of these, 1,584 IRs containing 5,787 paragraphs are outstanding for more than 10 years. Even first replies from the Heads of Offices, which was to be furnished within one month, have not been received in respect of 358 IRs issued up to March 2022 though it was pursued through Apex Committee meetings and the Departmental monitoring committee meetings. Year-wise position of the outstanding IRs and paragraphs is detailed in ***Appendix - XLIII.***

Serious irregularities commented upon in these IRs have not been settled as of June 2022 **(*Appendix - XLIV*)**. Number of paragraphs and amount involved in these irregularities is categorised in **Table No. 7.6**.

Table No.7.6: Category of irregularities, number of paragraphs and amount

(₹ in crore)

Sl. No.	Category of irregularities	Number of paragraphs	Amount
1	Non-compliance with rules and regulations	97	2,045.42
2	Audit against propriety/ expenditure without justification	26	137.32
3	Persistent/ pervasive irregularities	42	669.47
4	Failure of oversight/ governance	2	4.22

(Source: Information collected by Audit)

Audit has objected to recurring issues year on year and conveyed through Audit Reports of the Comptroller and Auditor General of India for initiating remedial measures to prevent its recurrence. Audit observed that inspite of assurance provided by the State Government for remedial measures, the irregularities persist. Few of such persistent irregularities are detailed in ***Appendix - XLV***.

Bhubaneswar
The o2 May 2024

(VISHWANATH SINGH JADON)
Accountant General (Audit-II), Odisha

Countersigned

New Delhi
The 06 May 2024

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India