

# **DREDGING ACTIVITIES IN KOLKATA PORT TRUST**

**PUBLIC ACCOUNTS COMMITTEE  
(2023-24)**

**HUNDRED AND EIGHTH REPORT**

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**SEVENTEENTH LOK SABHA**



**LOK SABHA SECRETARIAT  
NEW DELHI**

PAC NO. 2338

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TRUST**



*Presented to Lok Sabha on: 08-02-2024*

*Laid in Rajya Sabha on: 08-02-2024*

LOK SABHA SECRETARIAT  
NEW DELHI

February 2024/ Magha 1945 (Saka)

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\*Not appended to the Report

**COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE**

**(2023-24)**

**Shri Adhir Ranjan Chowdhury**

**Chairperson**

**MEMBERS**

**LOK SABHA**

2. Shri Subhash Chandra Baheria
3. Shri Thalikkottai Rajuthevar Baalu
4. Shri Bhartruhari Mahtab
5. Shri Jagdambika Pal
6. Shri Pratap Chandra Sarangi
7. Shri Vishnu Dayal Ram
8. Shri Rahul Ramesh Shewale
9. Shri Gowdar Mallikarjunappa Siddeshwara
10. Dr. Satya Pal Singh
11. Shri Brijendra Singh
12. Shri Rajiv Ranjan Singh alias Lalan Singh
13. Shri Jayant Sinha
14. Shri Balashowry Vallabhaneni
15. Shri Ram Kripal Yadav

**RAJYA SABHA**

16. Shri Shaktisinh Gohil
17. Dr. K Laxman
18. Shri Derek O'Brien\*
19. Shri Tiruchi Siva
20. Dr. M. Thambidurai
21. Shri Ghanshyam Tiwari
22. Dr. Sudhanshu Trivedi

**SECRETARIAT**

1. Dr Sanjeev Sharma - Joint Secretary
2. Shri Partha Goswami - Director
3. Shri Alok Mani Tripathi - Deputy Secretary
4. Shri Vijay Mishra - Committee Officer

\* Elected w.e.f. 19.08.2023 consequent upon retirement of Shri Sukhendu Sekhar Ray, MP on 18.08.2023.

## INTRODUCTION

I, the Chairperson, Public Accounts Committee (2023-24), having been authorised by the Committee, do present this hundred and Eighth Report (Seventeenth Lok Sabha) on '**Dredging activities in Kolkata Port Trust**' based on Para No. 6.1 of the C&AG Report No. 10 of 2020 relating to the Ministry of Port, Shipping and Waterways.

2. The C&AG Report No. 10 of 2020 was laid on the Table of the House on 23.09.2020.
3. The Public Accounts Committee (2023-2024), selected the aforesaid subject for detailed examination and took briefing by Audit and oral evidence of the representatives of the Ministry of Port, Shipping and Waterways on the subject matter on 31-10-2023. Based on the oral evidence and written replies, the Committee examined the subject in detail in 2023-24.
4. Public Accounts Committee (2023-2024) considered and adopted the Draft Report on the aforementioned subject at their Sitting held on 05.02.2024. The Minutes of the Sittings are appended to the Report.
5. For facility of reference and convenience, the Observations and Recommendations of the Committee have been printed in thick type and form Part- II of the Report.
7. The Committee would like to express their thanks to the representatives of the Ministry of Port, Shipping and Waterways for tendering evidence before them and furnishing the requisite information in connection with the examination of the subject.
8. The Committee also place on record their appreciation of the assistance rendered to them in the matter by the Committee Secretariat and the Office of the Comptroller and Auditor General of India.

NEW DELHI  
05 February, 2024  
16 Magha, 1945 (Saka)

ADHIR RANJAN CHOWDHURY  
Chairperson,  
Public Accounts Committee

## **DREDGING ACTIVITIES IN KOLKATA PORT TRUST BASED ON PARA 6.1 OF C&AG REPORT NO. 10 OF 2020**

### **Introductory**

The Committee have learnt that Syama Prasad Mookerjee Port, Kolkata (SMPK) (Formerly Kolkata Port Trust) is India's sole riverine port and it features two docks: *Kolkata Dock System (KDS)* and *Haldia Dock Complex (HDC)*. Under the administration of the Kolkata Port Trust (KoPT) and reporting to the Ministry of Shipping (MoS). This port plays a crucial role in catering to a vast hinterland encompassing Eastern India, North Eastern States, and landlocked nations such as Nepal and Bhutan. Being a riverine Port the navigational channels experiences high rate of siltation. In order to maintain depth, SMPK undertakes maintenance dredging. The narrative provides an overview of the shipping channels originating from Sandheads, with a focus on the Haldia Channel leading to HDC and the Kolkata Channel leading to KDS. Additionally, it acknowledge alterations in the shipping routes following the inauguration of the Eden Channel in March 2016.

### **Lack of long term strategic plan**

2. Audit observed that the navigation channel of KoPT experiences a high rate of siltation. This causes clogging of the navigation channel which requires periodic maintenance dredging. Therefore, a long term strategic plan for dredging activity by KoPT was essential to combat deterioration in the navigable depth of the channel. However, KoPT had not prepared any long term strategic dredging plan, detailing guidelines such as interval of conducting survey of spur and river, timeline for actions to be taken on the basis of above survey, alignment and re-alignment of shipping channel, steps to combat unwarranted situations like sudden fall in depth at a

specific bar etc.

3. When the Committee wanted to know about the clarity on the dredging policies and instructions issued by the Ministry of Shipping (MoS) to KoPT, the Ministry in its written reply informed as under:-

"The strategic plans of SMPK as regards to maintenance dredging involves hiring of dredgers for achieving the desired depths for shipping movement which includes monitoring of dredging activities by involving outside agencies and consultants and in-house experts. Further, SMPK has abided by all the instructions of the Cabinet/Ministry/PIB while formulating the dredging contract. It is reiterated that SMPK and MoPSW are on the same page in this regard". The audit in Para 6.1 of their report No 10 of 2020 observed a lack of a long-term strategic plan for dredging activities at the Kolkata Port Trust (KoPT). The navigation channel frequently experienced siltation, requiring regular maintenance dredging to prevent a decline in navigable depth. KoPT had not formulated a comprehensive strategic dredging plan, outlining crucial guidelines such as survey intervals, timelines for necessary actions based on surveys, alignment adjustments for the shipping channel, and strategies to address unexpected depth issues. The absence of a long-term plan originating from the strategic framework for dredging further compounded the issue."

4. When asked about the reason for not developing a comprehensive, long-term strategic plan for dredging despite awareness of high siltation rates in KoPT, the Ministry's reply highlighted the challenges of being a riverine port subject to extreme hydro-dynamic changes. It emphasized continuous monitoring and engagement of reputable institutes for scientific studies to address depth-related issues. The reply outlined the historical context, the deployment of dredgers since 1906, and the engagement of experts to offer solutions. Regarding the query about KoPT striving to

increase the target depth, the Ministry in their written reply referred to the impracticality of fixing a 6.4 meters target, citing past experiences and the absence of advice from consultants. In regard to the ad-hoc annual dredging plans not aligning with contractual obligations with DCIL, the Ministry in their reply attributed the unpredictability of the River Hooghly, necessitating year-round dredging. The reply emphasized the use of long-term contracts and periodic adjustments based on expert advice.

5. Concerning the Board of Trustees (BoT) not being apprised of dredging activities, the reply of the Ministry asserted that all contracts were approved by the BoT, and detailed reports were communicated to the Ministry. The Ministry of Ports, Shipping and Waterways stated that performance reports could be presented to the BoT, if advised. Regarding dredging policies from the Ministry of Shipping (MoS), the reply of the Ministry of Ports, Shipping and Waterways asserted compliance with their own instructions, particularly highlighting alignment with guidelines and policies issued in 2015, 2016, and 2021. The response to the omission of performance analysis in the Annual Administrative Report explained that the consultant conducts performance analysis, and future reports might include it if advised.
6. The Management asserted in September 2019 that the delay in finalizing the dredging tender was unavoidable due to various reasons, including issues with benchmark depth and changes in scope advised by the Ministry of Ports, Shipping and Waterways. However, these contentions were deemed unacceptable as lapses in defining benchmark depth and failure to consider quantity-based dredging payment terms were identified. The delay of 33 months in finalizing the dredging contract was considered avoidable, resulting from procedural lapses in the tender document.
7. The Ministry's claim that guidelines issued in March 2001 stipulated payment based on guaranteed minimum depth was countered, as there was no restriction on incorporating quantity-based dredging payment



terms. Such terms were found beneficial after their inclusion in the dredging contract effective from January 2017.

8. In the case of ineffective dredging at Jellingham, the Management and Ministry of Ports, Shipping and Waterways argued that Audit's view was based on post-dredging results, which couldn't be predicted in a dynamic riverine environment. However, this contention was rejected, emphasizing the importance of maintaining the required depth at Jellingham for effective dredging.

### **Oversight of Board of Trustees**

9. Audit has also revealed that the Board of Trustees (BoT) was not informed about dredging performance, despite monthly presentations on Port Operation Metrics. The Management's assertion in September 2019, claiming that the dredging contract was awarded to the Dredging Corporation of India Limited (DCIL) based on policies from the Ministry of Shipping (MoS), and that annual dredging performance was included in the Annual Administrative Report for the BoT, was found to be unsubstantiated. The MoS had not formulated or circulated any such dredging plan or policy.

### **Unsatisfactory Performance by DCIL**

10. The audit also identified unsatisfactory performance by the Dredging Corporation of India Limited (DCIL) in its dredging contracts with Kolkata Port Trust (KoPT). Initially engaged for dredging in the Haldia channel with a target depth of 6.4 meters at Jellingham, DCIL failed to consistently maintain the specified depth, leading to subsequent contract revisions with reduced target depths. The lack of achievement persisted until December 2016. Despite open tender attempts, KoPT awarded DCIL a contract in January 2017 with a target depth of 4.1 meters. The incorporation of new payment terms, linking payment to the quantity dredged, contributed to achieving the target depth.

11. When asked why KoPT is not striving to increase the target depth of the navigation Channel to the desired 6.4 meters, the Ministry in its written reply informed as under:-

“SMPK fixes target depths for dredging contracts based on scientific studies and considering the achievability of the same in a complex dynamic river system with perennial siltation. In this regard, it is relevant to refer to the case of additional dredging being carried out at Jellingham in the year 1998-99 wherein the experts in the dredging field M/s. HAM Dredging of Netherlands were deployed to achieve a depth of 6.1 m in a period two years with a quantity to be dredged of about 16 million cubic meter. In spite of dredging a quantity of 18 million cubic meter, the depth of 5.6 m only could be achieved and the dredging contract was terminated as they could not achieve the targeted depth even after dredging more than the tendered quantity. This depth also could not be sustained being un-maintainable in such dynamic river regime in spite of dredging effort. In view of this, it would be unrealistic to fix a target of 6.4 m. Moreover, SMPK has never been advised by any of the consultants and Advisory Committees to fix such targets. From the existing records it could not be found out that targeted depth was 6.4 Mtr ever”.

12. To a query as to why KoPT's ad-hoc annual dredging plans didn't correspond with the contractual obligations set with the dredging contractor, DCIL, the Ministry in its written reply informed as under:-

“River Hooghly is subjected to highly unpredictable dynamic and morphological changes specially at the lower estuary below Diamond Harbour necessitating dredging requirement throughout the year for which SMPK has dredging contract with DCIL in place with an annual plan on quantity and depth to be achieved for safe shipping movement and reduction of dead freighting. From 2002, SMPK entered into long term depth-

oriented contract (main objective of the dredging contract is to maintain required depth) with DCIL where the projected depth has been formulated considering hydraulic studies and achievability. Since 2017, SMPK, as per the advice of IIT, Madras, has entered into five yearly dredging contract, finalized through open tender, with prefixed quantity to be dredged for maintaining the depths at the governing bars with provision of interim course correction”.

13. Audit has observed that the KoPT navigation channel faces significant siltation issues, requiring periodic maintenance dredging to prevent clogging. Despite this, KoPT lacked a crucial long-term strategic plan for dredging activities. Notably, dredging at HDC began with a target depth of 6.4 meters, but KoPT failed to establish an independent, long-term vision to strive for achieving and maintaining this target depth. Instead, KoPT relied on the depth achievable by DCIL. While KoPT generated annual ad-hoc plans for dredging, these sometimes exceeded the contracted target depth with DCIL. Furthermore, the Board of Trustees was not kept informed about dredging performance, despite receiving updates on other port operations. In this regard, during the oral evidence it was asked whether KoPT is maintaining the target depth as per the dredger or dredging that can be done.
14. On the above point the representative of the Ministry during the oral evidence replied as under:

"This is as per the scientific study as well as hydrological study. We are also getting advice and technical inputs from IIT-Madras. "

It was further stated:

"We have been policing the guidelines of the Ministry from 2001. We have been advised by the Ministry to give it to DCIL on a nomination basis. On 2007, the policy got confirmed to

give it on a tender basis. But Kolkata Port was exempted from it. In 2013, we had been advised to go on a tender basis. In 2014, we floated a tender. But DCIL quoted it at a higher rate, that is, 73 per cent higher than the existing rate. At the same time, two studies were also being undertaken. It was delayed. In 2016, the same was awarded on a tender basis and also on a quantity basis."

15. When asked whether a single entity will continue the job forever and whether this aligns with the dredging policy, the representative of the Ministry during the oral evidence replied as under:

"No, Sir. We had given it on an open tender basis in 2016. It was also on the basis of a quantity."

### **Discrepancies in Target Depth and losses**

16. Audit had specifically mentioned that the dredging was commenced as HDC with a target depth of 6.4 metres. When queried whether KoPT's fixing of the target depth was based on the depth achievable by DCIL, the representatives of Ministry of Ports, Shipping and Waterways stated that:

"Sir, the target of depth, which is crucial for our sedimentation station, is achieved through the sedimentological and hydrological methods of our sediment station. It has a cost. So, we test how much million tonne cubic metre of dredging can be done on a yearly basis. We cannot fix it arbitrarily. We have to fix the depth which we can maintain. In 1998-99, a company from Holland dredged it but they could also not maintain it. They were asked to go to 5.7 and 6.3. They only went for 5.7. They left the tender and it was closed."

17. However, the average achieved depth remained below the envisaged comfort depth of five meters and the ideal target of 6.4 meters, impacting vessel carrying capacities. KoPT estimated a loss of 45.27

million metric tons of cargo valued at ₹1,419.70 crore from 2013 to 2019 due to reduced utilization of cargo vessel capacities. Additionally, scrutiny of DCIL's dredging activity from April 2013 to December 2016 revealed operational deficiencies, including inadequate dredger deployment, frequent breakdowns, and delayed replacement of old dredgers.

18. The Management's contention that target depth compromises were based on achievability rather than DCIL's performance was rejected. KoPT's negotiation of the 4.1-meter target in the 2017 contract contradicted this claim. The Ministry's assertion that low depth between 2013 and 2015 was due to Island formation was disputed, as the islands existed since 1997.

19. Audit also observed an additional expenditure of ₹2.71 crore was incurred by KoPT in the monitoring work of dredging. In January 2017, KoPT awarded a five-year maintenance dredging contract to DCIL, and subsequently, WAPCOS was appointed in June 2017 for auditing the dredging works at a cost of ₹21.76 crore over 54 months. The Management, realizing the vast scope of the monitoring work, delayed revising it to align with the dredging contract. This delay led to additional expenses, and only in January 2019, the scope was revised, reducing the contract price by 40 percent. The Management and Ministry contended in September 2019 and December 2019 that the delay was due to gaining experience and implementing further trimming of deliverables without compromising quality, resulting in cost savings. However, this contention was deemed unacceptable, as the Management was aware of the vastness of the scope before finalizing the monitoring contract, and the revision occurred after an 18-month delay, lacking justification.

### **Increase in Turn Round Time**

20. Concerning the increase in Turn Round Time (TRT) of vessels, the Syama Prasad Port Trust Management justified it by citing the dynamic Hooghly Estuary and the necessity for frequent shifting and re-aligning of the shipping channel. The Ministry of Ports, Shipping and Waterways

added that despite additional costs, lighterage operations were cheaper and preferable. However, these contentions were not accepted, and the Audit in their report observed increase in TRT at KoPT was considered detrimental to port efficiency, impacting port users who had to bear additional demurrage charges and extra expenditures.

### **Shortcomings in Spur Construction and Maintenance**

21. Regarding the new approach to spur maintenance and to ensure that it follows a strategic plan including both preventive and reactive measures, the Ministry in its written reply stated as under:-

“SMPK proactively monitors the spurs as per well laid examination regime, comprising close grid bathymetric survey and examination. If such examinations detect any requirement of nourishment or any correctional works, necessary schemes are formulated and Civil Engineering Dept executes the schemes. Above examinations are done in tandem with survey of the adjoining reach and such routine examination and monitoring help maintain stable channels.

As per extant examination regime (formulated in 2021), most of the spurs are supposed to be inspected/surveyed 2 to 3 times every year. However, in case of damaged spur, frequency of survey is to be increased for monitoring and formulation of nourishment scheme”.

22. The audit observed that short spurs, constructed in the 1970s to prevent bank erosion and establish a stable channel, were not adequately maintained and allowed to deteriorate. Despite the construction of 13 major spurs and 154 short spurs in the upper and lower reaches of the Hooghly River, five short spurs were washed away, and many required nourishment due to the gradual deterioration of the Haldia-Balari channel. In October 2008, KoPT decided to execute nourishment/rebuilding works

for these spurs in phases, excluding the Nischintapur area. The omission of this area, as of August 2019, undermined the purpose of spur construction and adversely affected the navigational channel's depth. Additionally, the cost assessment in September 2016 indicated that the project's cost would rise to approximately 30 to 35 crore, revealing an ad-hoc and piecemeal approach without clear targets and committed resources for completion.

23. When enquired about the steps taken by KoPT to ensure a strategic and proactive approach to the construction and maintenance of spurs in the future, the Committee were informed:

"It seems that the query is related to the short spurs at Nischintapur area. There are altogether 154 short spurs between Kulpi Pagoda and New Silver Tree Point. The short spurs between Kulpi Pagoda and Nischintapur area have already been embedded. In other words, such spurs have served their purpose and stabilised the river channel. Balance spurs between Nischintapur and Silver Tree Point are exposed to the open estuary and as a result, they are more vulnerable to damage. Hence, nourishment works have been carried out in 1992-93, 2009-10, 2019 onwards. However, records of works, if any, before 1992 are not readily traceable.

SMPK (KoPT) proactively monitors the spurs through well laid examination regime, comprising close grid bathymetric survey and examination. If such examinations detect any requirement of nourishment or any correctional works, necessary schemes are formulated and Civil Engineering Dept executes of the schemes. Above examinations are done in tandem with survey of the adjoining reach and such routine examination and monitoring help maintain stable channels."

24. When asked to elaborate on the significance of maintaining spurs for

the stability of navigation channels, the Ministry in its written stated as under:-

“Construction and maintenance of spurs are generally carried out:

- (i) to restrict widening of the river due to bank erosion.
- (ii) to optimize / reduce / eliminate the requirement of Dredging by channelizing the water flow in a particular direction.
- (iii) to hold the estuarine frame.

For stability of the navigational channel, spurs are surveyed at a regular interval (health check) and any maintenance/ nourishment required is undertaken by River Training Cell of SMPK through open tender. In certain cases, delay took place due to non-availability of material and selection of contractors”.

25. The Ministry also contended that the delay in spur repair and nourishment did not affect the boundary condition or result in bank erosion. When posed with the query as to why KoPT's assessment contradict this, the Ministry in a written reply stated as under:

"The navigable depth over the reach adjoining to Nischintapur area are asfollows:

26. Time/ Year	27. Navigable depth (Below Chart Datum) in Mt
28. 2 014	1.4 2
29. 2 019	1.4 9
30. 2 023(October)	1.6 0

The reach does not require any dredging. Such



observations indicate that there was no adverse effect."

### **Disposal practices and impact on navigation**

26. The Audit also pointed out the shortcomings in the disposal practices of dredged material at Kolkata Port Trust (KoPT). The report emphasizes that the channels leading to HDC (Haldia Dock Complex) experience heavy siltation, requiring ongoing dredging for navigability. The two predominant methods of disposal are river dumping and shore dumping. Despite the preferred effectiveness of shore disposal, KoPT primarily relies on river dumping until February 2020.
27. Asked about the strategic adjustments in the pipeline to guarantee that the maintenance of spurs and dredging operations are executed punctually and in harmony with each other, the Ministry in their written replies has furnished as under:
- "The concerned departments of SMPK i.e. HSD, Marine Department and Civil Engineering Department, though work in coordination with each other in association with the NTCPWC. Often construction/nourishment of spur gets delayed due to non-availability of required civil engineering materials for which Government of West Bengal is being actively pursued."
28. The channel leading to HDC is prone to heavy siltation which results in clogging of the navigation channel. KoPT, therefore, has to carry out dredging on continuous basis to maintain the navigability of the shipping channel. Effective dredging depends on proper disposal of dredged material. Mainly two practices of disposal of dredged material viz. shore dumping and river disposal is followed. In the shore dumping process, dredged material is discharged to shore through pipeline or by barge. In the river dumping, dredged material is dumped in the designated area of the river itself or through side casting considering the morphology of the river. Disposal of dredged material of 10 to 20 MM3 per annum approximately becomes a major constraint for KoPT. KoPT undertook

mainly river dumping of dredged material in the deep pockets of the river and very small portion of the same by side casting method. Shore disposal is preferred and most effective method which was not started by KoPT till February 2020.

29. Asked to explain the frequency of dredging required in the channel leading to HDC due to heavy siltation and the impact of this siltation on the navigability of the shipping channel and the measures in place to ensure continuous and effective dredging to maintain navigability, the Ministry in its written reply stated as under:

"The shipping channel leading to HDC is dredged throughout the year by engaging on an average three dredgers of hopper volume approximately 15000 cubic meters in total, daily. The annual quantity hovers around 8 million cubic meter."

30. On the two main practices for the disposal of dredged material: shore dumping and river disposal and the advantages and disadvantages of each method, the Ministry in their written reply stated as under:

"SMPK primarily undertakes river disposal at designated dumping grounds in deep water identified through mathematical studies. Shore disposal can be undertaken only when suitable land is available in close proximity of the dredging site, the probability of reuse of dredged material dumped ashore along with the additional cost involved for such operation.

For selection of shore dumping or river dumping, the determining criteria is the cost involved in each of such operation. In the dredging guideline of 2021, both disposal methods have been recommended depending on suitability and cost effectiveness."

31. The Audit report also raised concerns about the consequences of

river dumping, including re-circulation of dredged material in the shipping channel due to insufficient depth of dumping grounds. It highlighted recommendations by experts to implement shore disposal for complete removal of dredged material from the river system. Additionally, the report discussed specific issues related to dredging at Lower Eden, the narrowing of the navigable width at Haldia Anchorage, and the need for effective management practices, including pursuing suitable land for shore disposal. It criticized the Management's contentions, asserting that the delay in implementing shore disposal lacked justification, leading to avoidable additional expenditures.

32. In the past, there were two types of dredging activities carried out by DCIL at Kolkata Port Trust (KoPT): conventional dredging and side casting. In conventional dredging, the material was excavated and loaded into the dredger's hopper for discharge at a designated dumping point in the river. On the other hand, side casting involved excavating dredging material and disposing of it by throwing it in slurry mode at a distant place in the river. A specific issue highlighted in the report pertained to the non-incorporation of the lower rate of side casting in the dredging contract. Despite being aware since May 2015 that the rate of side casting dredging was lower than that of conventional dredging, the Management did not include a separate rate for side casting in the January 2017 contract. This led to avoidable payments of ₹10.19 crore during the period from January 2017 to March 2019. Furthermore, KoPT missed the opportunity to save ₹12.74 crore during the remaining period of the contract, up to December 2021.
33. The Management's contention, expressed in September 2019, that they were unsure about the quantum of side casting necessary and therefore did not ask for separate rates from DCIL, was deemed unacceptable. The contract had clearly stipulated a maximum quantity of one MM3 per annum for side casting, necessitating the incorporation of a separate rate in the dredging contract.

### **No capabilities to measure actual quantity of material side casted**

34. Another issue highlighted was the non-installation of a production meter, a measuring device required by the contract, in DCIL's dredgers. This absence of suitable measuring devices meant KoPT had no instrument to measure the actual quantity of material side casted. Consequently, payments were made based on a fixed formula at the rate applicable for conventional dredging.
  
35. The Audit arrived at the conclusion that KoPT lacked a strategic dredging plan approved by its Board of Trustees, resulting in deficiencies in dredging contract execution, underutilization of dredgers, and additional expenditures. The absence of shore disposal practices further contributed to the deterioration of the navigation channel despite dredging activities, making the port less attractive to users.

## PART-II

1. The Committee find that Syama Prasad Mookerjee Port, Kolkata (SMPK), formerly known as Kolkata Port Trust, stands as India's exclusive riverine port, boasting two essential docks: the Kolkata Dock System (KDS) and the Haldia Dock Complex (HDC). Operating under the administration of the Kolkata Port Trust (KoPT) and falling under the jurisdiction of the Ministry of Shipping (MoS), this port plays a pivotal role in serving a vast hinterland that extends across Eastern India, the North Eastern States, and landlocked nations like Nepal and Bhutan and due to its prominent geographical location, it assumes special significance.
2. The Committee note that KoPT navigation channel faces significant siltation issues, requiring periodic maintenance dredging to prevent clogging. Despite this, KoPT lacked a crucial long-term strategic plan for dredging activities, including guidelines for surveys, timelines for actions, shipping channel alignment, and strategies for unexpected depth changes. The Committee note deficiencies in KoPT's overall dredging strategy, emphasizing the absence of a comprehensive, long-term strategic plan approved by the Board of Trustees (BoT). They find that annual dredging plans were not presented to the BoT for approval, hindering transparency. Therefore, the Committee recommend that the Kolkata Port Trust (KoPT) promptly develop and implement a comprehensive, long-term strategic plan for its dredging activities. This plan should emphasise on developing a computer aided mathematical model harnessing the historical data available and including hydro-dynamic changes, sedimentation transport and scientific studies conducted by reputable institutes. The model should be all inclusive and to address key aspects such as survey intervals, timelines for necessary actions based on surveys, alignment adjustments for the shipping channel, and strategies to handle unexpected depth issues. Additionally, the

Committee would like to emphasise that KoPT may undertake to collaborate with experts and consultants to establish a realistic target depth, considering the unique challenges posed by the River Hooghly. The integration of the result of the mathematical model into the long-term strategic plan will enhance the effectiveness and efficiency of dredging activities, ensuring better navigability in the face of siltation challenges.

3. During their course of examination, the Committee note that the payment terms for the dredging contracts with DCIL were not linked to the quantity dredged until the new contract which came into place from January 2017. This lack of linkage allowed dredgers to be paid irrespective of their utilization, potentially leading to a situation where performance was not directly incentivized. The incorporation of new payment terms based on quantity in the later contract led to an improvement in achieving the target depth, indicating the significance of aligning payment terms with performance.

Taking note of the above developments, the Committee recommend that future dredging contracts should include performance-based payment terms to ensure that contractors are incentivized to meet the specified targets. The Committee note that the payment terms for dredging contracts with DCIL until December 2016 were not linked with the quantity dredged, resulting in payment to dredgers irrespective of utilization of their services. This may have contributed to inefficiencies in dredging operations. The Committee therefore recommend that KoPT should invariably continue the practice of linking payment terms with the quantity dredged, as introduced in the contract effective from January 2017. This approach aligns the interests of the dredging contractor with the goal of achieving and maintaining the required depth, ensuring that payments are contingent on performance and encouraging efficient dredging operations.

4. The Committee in no uncertain words would also like to recommend that Shyama Prasad Mookherji Trust (Kolkata Port Trust, KoPT) undertake immediate and comprehensive measures to enhance its dredging operations and mitigate substantial losses in cargo traffic. KoPT has lost 45.27 million metric tons of cargo valued at ₹1,419.70 crore from 2013 to 2019 due to reduced carrying capacities of cargo vessels, attributed to the non-achievement of target depth by Dredging Corporation of India Limited (DCIL). To address this, the Committee would suggest adopting a multifaceted approach. Firstly, a thorough review and strengthening of contractual provisions with DCIL is imperative. This includes the incorporation of stringent clauses, such as performance-based payment terms and penalties for non-achievement, fostering accountability and incentivizing efficient dredging. Additionally, robust performance monitoring mechanisms need implementation, utilizing advanced technologies for real-time data analytics and establishing key performance indicators to track and benchmark dredging efficiency.
5. The Committee find that exploring technological solutions is crucial for optimizing dredging operations. They feel that KoPT should investigate state-of-the-art dredging technologies, including remote sensing and autonomous solutions, to improve accuracy and efficiency. Accordingly, they would like to recommend that risk mitigation strategies must be developed, anticipating challenges related to tide, waves, upland discharge, and external factors impacting the river regime. They would also like to observe that collaboration with relevant authorities is key to addressing systemic issues such as water-sharing treaties.
6. The Committee are of the opinion that continuous improvement and adaptation should be ingrained in KoPT's practices. Accordingly, they recommend establishing a culture of innovation, undertaking regular performance reviews, and periodic updates to contractual agreements which will ensure that the lessons learned while erring are incorporated, and operations remain

aligned with evolving technologies and industry best practices.

7. The Committee, after a thorough examination of the audit findings, note several critical issues in the dredging activities at Kolkata Port Trust (KoPT). Firstly, the report highlights a discrepancy related to the monitoring work of dredging, where a vast scope was recognized as too extensive for effective implementation, leading to delayed revisions and additional expenditures. The Committee observe that a comprehensive scope assessment before finalizing contracts and a timely revision mechanism are imperative to prevent such challenges. They recommend that KoPT develops protocols for continuous evaluation of monitoring contracts based on gained experience. The Committee find it surprising that the Board of Trustees of the Port were not aware or informed of the dredging performance. Contrary to the Management claims, the Committee note that the Ministry of Shipping had not issued any policies regarding dredging operations.

8. The Committee are also concerned to note irregularities regarding dredged material disposal practices. They note that inadequate depth of dumping grounds led to re-circulation, emphasizing the need for shore disposal as recommended by experts. The Committee find from the Audit report that 15% of dredged material are re-circulated, incurring significant costs. In this regard, the Committee recommend for active pursuit of shore disposal implementation and with collaboration with relevant authorities to identify suitable land for accommodating the dredged out material. Moreover, the Committee also emphasise the need for vigilantly monitoring dredging activities to prevent accretion and narrowing of navigable widths, especially in critical areas like Haldia Anchorage.

9. Regarding contractual issues with Dredging Corporation of India Limited (DCIL), the Committee find that the non-incorporation of lower rates for side casting in the dredging contract resulted in



avoidable payments. They do not agree with the Management's contention of uncertainty and recommend explicit incorporation of rates for side casting dredging, aligned with specified annual quantities. The Committee also observe the absence of suitable measuring devices on DCIL's dredgers for accurate quantification of side casting dredging material. Therefore, they recommend mandating the installation of such devices and establishing a standardized measurement system.

10. The Committee also find that annual dredging plans were not presented to the BoT for approval, thereby hindering transparency. They, therefore, recommend the development of a strategic plan and regular presentation of annual plans to the BoT. The Committee also urge that a proactive approach to be undertaken in the construction and maintenance of spurs, allocating sufficient resources and setting clear targets for timely completion. The Committee acknowledge the importance of a comprehensive performance analysis in the Annual Administrative Report (AAR) to evaluate the effectiveness of dredging operations at Kolkata Port Trust (KoPT). The Committee also take note of the response of the Ministry which indicate that the current practice involves performance analysis by the consultant engaged by SMPK, with subsequent corrective actions taken accordingly. However, the Committee note that the Annual Administrative Report lacks detailed insights into dredging intricacies and recommend that such short comings to be properly addressed in the subsequent Reports.

11. In light of this, the Committee specifically recommend a structural improvement of the contents of the Annual Administrative Report so as to include a dedicated section for performance analysis against set targets and deviations. This inclusion will provide stakeholders, including the Board of Trustees and relevant authorities, with a clearer understanding of the dredging activities' outcomes and challenges. The Committee would also like to suggest that the Annual Administrative Report should not only present

performance metrics but also offer a nuanced analysis, outlining the reasons for any deviations and proposing remedial measures relating thereto.

NEW DELHI  
३ ५ February, 2024  
| ६ Magha, 1945 (Saka)

ADHIR RANJAN CHOWDHURY  
Chairperson,  
Public Accounts Committee

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