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CONTRACT RISK / ORIGINAL INVESTIGATION

Dredging Contracts: Where the Payment Account Breaks

A discounted award, disputed depths and the difference between a payment claim and money received.

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Cochin payment and retention
Singapore-seated standby dispute
Gangavaram-Kamarajar fleet transfer

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Cochin: a discounted award and a costly settlement

In January 2018, Dredging Corporation of India won Cochin's annual channel-maintenance contract at a price the port recorded as 28.04% below its estimate. Dredging began in March. By May, a disagreement about the depths to be maintained was reaching the monthly payment account. Two years later, a settlement released INR 140.995 million to the contractor. A separate INR 55.942 million security deposit remained caught in the settlement and became the subject of adverse audit findings. [1, 3, 4]

The sequence exposes a weakness in judging marine contracts by their award price. The buyer's saving is agreed before the dredger encounters the opening seabed. The contractor's cash depends on what the contract requires it to maintain, how performance is assessed and what happens to the payment account when the parties disagree. A settlement can then change the recoverability of money earned under a different clause.

This report follows that sequence through the port's accounts, the contractor's financial statements and India's public audit. Two further case files test the same commercial problem from different directions: a Singapore-seated dispute in which stoppage compensation survived despite completion only two days beyond the original period, and a fleet transfer between Indian ports in which a claimed liquidated-damages benefit competed with unfinished, higher-rate work.

A competitive dredging price needs a funded route from the opening survey to the final receipt. Performance remedies, standby compensation, retention and settlement releases change that route. When they are priced or administered separately, the account can deteriorate while the site is still working.

1. Cochin: the opening condition changed the meaning of the price

The port's March 2019 contract register identifies Agreement 28 of 2017-18, a tendered price of INR 885.11 million against an estimate of INR 1,230 million, and commencement on 5 March 2018. [1] The work combined a lump-sum maintenance obligation in Part A with need-based, measured work in Part B. A payment earned by maintaining an outcome has a different production exposure from a payment earned for each accepted cubic metre.

The port's 2018-19 accounts record DCI's position that a pre-dredging survey showed about eight million cubic metres of backlog. DCI asked to maintain the channels and basins in their handed-over condition without penalty. The port rejected that request, referring to the agreed depth obligation and the two-month period allowed to achieve it. Its board continued the contract against the survey dated 19 February 2018 and adopted an interim payment arrangement. [2]

The dates matter. The opening survey cited in that dispute followed the January award and preceded mobilisation. The dispute concerned the amount of work needed to bring the starting seabed to the required condition, alongside the continuing maintenance task. The contractor's proposed treatment would have changed the performance baseline after the price had been agreed.

For a lump-sum maintenance price, opening backlog and new deposition compete for the same vessel time. A dredger clearing an inherited shoal is occupied even if the monthly payment depends on a depth maintained elsewhere or across a larger area. Mobilisation, fuel, crew and equipment costs are incurred against that occupation. If the price assumes recurring maintenance alone, the initial recovery work consumes resources that the estimate assigned to another purpose.

The commercial exposure can be expressed without inventing a production rate. The fixed payment purchases an agreed depth outcome. The contractor has to fund the vessel occupation required to achieve and maintain it. That occupation is sensitive to the opening surface, the required recovery date, subsequent deposition and the method used to establish compliance. Each of those inputs can change expenditure while the payment remains fixed.

The opening survey therefore has two jobs. It defines the physical starting condition and establishes the quantity of recovery work implicit in the promised outcome. A tender survey and a commencement survey taken months apart need a rule for the intervening change. Otherwise, the first substantial commercial negotiation may occur after the spread has mobilised, when withdrawal or repricing carries immediate cost.

Cochin's discounted award and subsequent payment dispute belong in the same contract history. They establish why the bid must be tested against the opening obligation. The published records provide no project cost account from which to calculate a tender margin or attribute the later settlement loss to the discount alone.

2. The depth dispute reached the whole monthly bill

Under the interim arrangement recorded by the port, Part A received 75% of the gross monthly bill while Part B work received full payment, with specified recoveries and corresponding fuel-price treatment. [2] The split allowed work and part-payment to continue while the depth dispute remained unresolved. It also made the performance disagreement a recurring funding problem for the contractor.

India's auditor subsequently identified a larger disagreement about the payment mechanism itself. CAG reported a maximum depth-shortfall recovery of INR 37.6 million under the relevant clause, compared with INR 234.9 million withheld, and calculated an excess withholding of INR 197.3 million. The audit separately recorded a 5% retention, refundable within 14 days of payment of the final bill. [3, section 7.2]

The port's interim board arrangement and the auditor's contractual calculation answer different questions. One records what the employer actually paid during the dispute. The other challenges the extent of the withholding against the stated contractual remedy. A contractor quoting on the assumption that its exposure stops at a deduction ceiling needs to examine how progress payments will be administered while that ceiling is contested.

That is a cash issue before it becomes a final-account issue. The unpaid part of a monthly bill no longer funds the next period's work. Fuel suppliers, wages, repairs and vessel finance follow their own due

dates. Continued payment for Part B helps, but its amount depends on the measured work undertaken; it cannot be assumed to offset a continuing reduction in the separate Part A receipts.

The contract account should preserve the distinction between three decisions: the engineer's performance assessment, the amount the employer is contractually entitled to deduct, and the amount actually released. A survey finding is evidence for the first decision. The deduction clause supplies the basis for the second. A payment certificate and bank receipt establish the third. At Cochin, the records show why reconciling only the first two leaves the funding problem unresolved.

The owner's interest is equally concrete. A maintenance contract is intended to sustain an operating waterway. A withholding arrangement that leaves the contractor funding a large, continuing shortfall can affect its ability to keep the required spread available. Payment administration therefore belongs alongside the depth-recovery plan. The employer still needs a remedy for deficient performance, but the assessment should identify the affected obligation, the applicable calculation and the money released for the remaining work.

3. A settlement released cash and trapped a separate asset

The later settlement changed the problem. DCI's 2021-22 annual report records INR 234.952 million withheld from bills and a separate INR 55.942 million retention. It confirms that INR 140.995 million was released following an undertaking for full and final settlement. The government auditor's comments in the same report challenged the continued recognition of the retention as a recoverable asset. Management maintained that the deposit had been withheld rather than forfeited and pursued recovery. [4]

The settlement account can be reconciled as follows. These are amounts in the disclosed settlement sequence, rather than the value of the entire contract or all payments made during the works.

Account item	INR million	Treatment in the disclosed record
Withheld bills	234.952	Starting withheld-bill balance reported by DCI
Separate security deposit / retention	55.942	Additional asset caught in the settlement
Combined account under consideration	290.894	IMWO sum of the two reported balances
Cash released	140.995	Confirmed release recorded by DCI
Withheld-bill balance after release	93.957	IMWO subtraction; entitlement follows the settlement
Retention remaining	55.942	Subject of the subsequent recovery dispute

The release represented about 48.5% of the combined account above. That percentage describes the settlement pool, including retention. It is not a percentage of total contract earnings or a project profit margin.

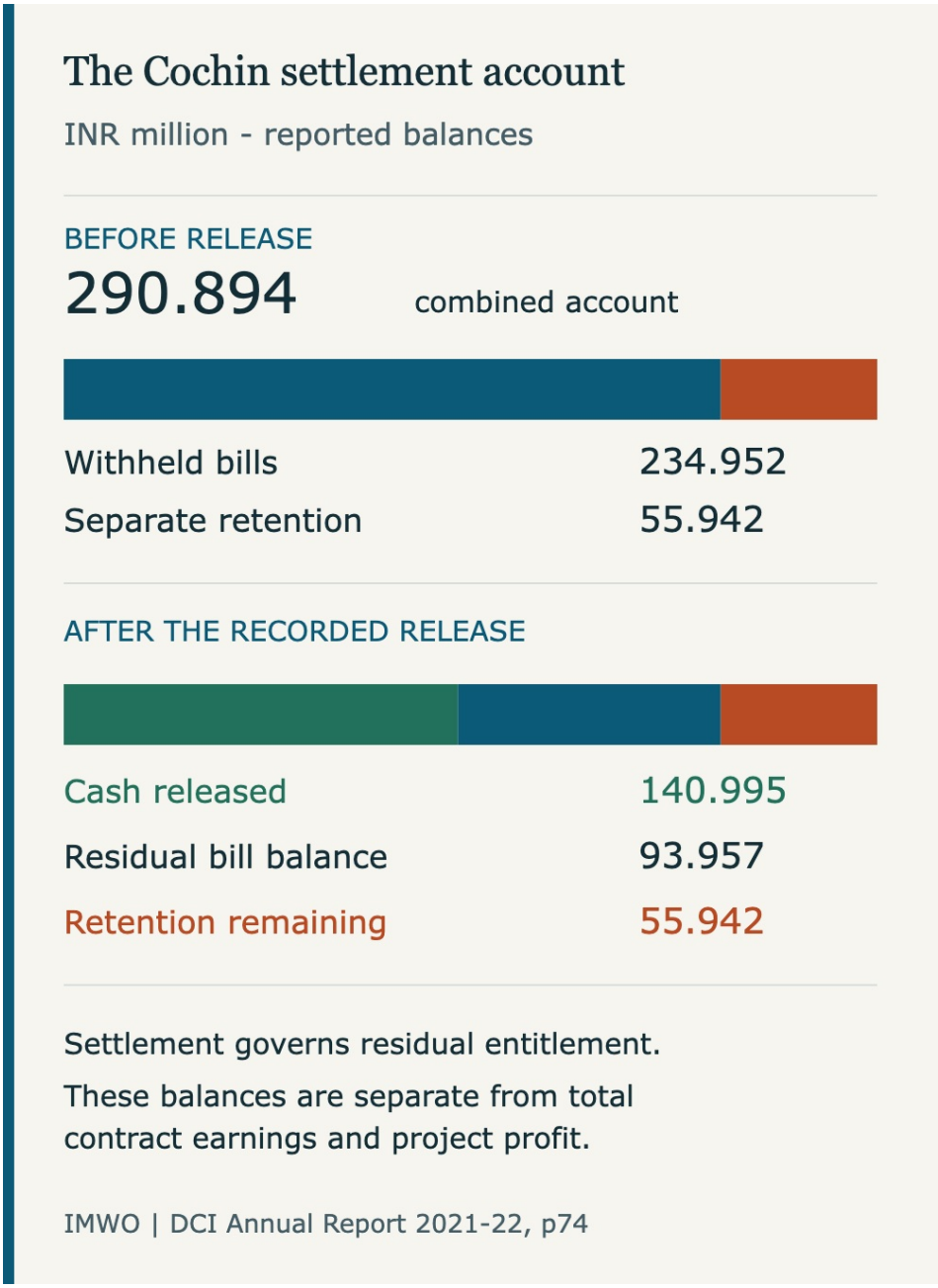


Figure 1. IMWO reconciliation of amounts in DCI's 2021-22 annual report. The two starting balances and recorded cash release are source values; the combined and residual balances are arithmetic. Graphic: IMWO.

The failure described by CAG concerned the scope of the compromise. The original disputed amount related to depth-shortfall withholding. The separately refundable deposit entered the conciliation and the final-settlement undertaking. CAG attributed a loss of INR 55.9 million to DCI's handling of that process. Its report also records management's later legal advice that the undertaking left minimal scope for recovery. [3, section 7.2]

Cochin's own 2023-24 accounts corroborate the release and the subsequent refusal to refund the deposit. They identify the conciliator's decision of 20 June 2020, board approval in August 2020, later refund requests and the port's June 2022 refusal to reopen the matter or appoint an arbitrator. [7]

This is the point at which payment pressure can change the value of another contractual right. A contractor may accept a reduced recovery of a disputed bill to obtain cash. Its decision must also price the claims, deposits and future releases surrendered by the accompanying document. An undertaking covering the subject contract can reach beyond the particular invoice that prompted the negotiation.

A settlement comparison therefore needs an opening schedule of the affected assets. Each item needs its amount, contractual basis, dispute status, release condition and proposed treatment. Where retention is intended to survive, the settlement text and its annex should preserve that treatment expressly. Where it is surrendered, the approval should show the amount as part of the price of the compromise.

The alternative has a real cost. At Cochin, INR 140.995 million reached the contractor, while the treatment of a separate INR 55.942 million continued through recovery requests and adverse audit findings. Describing the outcome simply as a settlement received would omit a substantial part of the transaction.

4. The financial statements reveal the second delay

Cash and accounting recognition then diverged. The statutory auditor's report for 2022-23 said the deposit had not been recovered, there was no positive confirmation of release and management still treated the receivable as good. The auditor identified a corresponding INR 55.9 million overstatement of profit. DCI's note continued to present its case for recovery, including its notice seeking arbitration. [5]

The 2023-24 annual report subsequently showed INR 55.942 million against the Cochin security-deposit provision in the 2022-23 comparative column. That report also restated prior-period results. [6] The comparative charge records an accounting treatment of the loss exposure. A zero current-year charge in the same row supplies no evidence of a cash refund. The port's corresponding account continued to describe its rejection of the refund request. [7]

The sequence has two distinct delays: the time until part of the withheld bills became cash, and the time until the remaining asset was reflected differently in the financial reporting. A project can appear to retain a recoverable balance after its commercial prospects have deteriorated. That delays a clear view of the account even after the dredging campaign has ended.

For management, the practical test is to reconcile the contract ledger with the last effective decision on each balance. A disputed receivable retained at its full amount needs a recovery basis that survives the settlement actually signed. A representation, request for arbitration or hoped-for waiver is a different event from an accepted obligation to pay. The board approving a compromise needs both the immediate receipt and the resulting change in recoverability.

For an employer, recording a deduction in its own account does not establish agreement by the contractor. For a contractor, carrying an asset does not establish acknowledgement by the employer. Reading both parties' disclosures at Cochin exposes that gap. The settlement, the payment and the accounting entries must be reconciled before the final account can describe the economic outcome reliably.

The next tender distinguished its payment promise from its usual practice

The port's February 2022 pre-bid record for the separate 2022-24 maintenance tender provides a direct view of the financing terms offered to bidders. The issued table retained an interim-payment period of 45 days from the engineer's receipt of the statement and supporting documents, and 56 days for final payment after the employer received the final payment certificate. A request to shorten those periods was rejected. [9, query 21]

In its answer, the port said running-account bills were normally paid within 15 days after all necessary documents were submitted. That described its usual processing practice. The same answer retained the longer tender condition. A funding model needs to distinguish the contract period from an employer's account of normal administration, then examine what makes a submission complete.

The starting documents matter as much as the number of days. The interim clock in this table runs from receipt of the statement and supporting records. The final clock runs from receipt of the certificate. Counting both from the last day of dredging would compress the financing requirement and overlook the final-account process that precedes the second trigger.

The record also shows bidders seeking late-payment interest. One proposed a rate above the RBI base rate; another asked for SBI's prime lending rate plus two percentage points against the deleted delayed-payment clause. The port rejected those changes. It also rejected a request for a 10% mobilisation advance. [9, queries 3, 5 and 22]

Those answers belong in the commercial comparison before award. An offer with a short assumed receipt cycle has a different funding basis from one carrying the retained tender period. A rejected interest proposal supplies no reimbursement assumption for that funding cost. The contractor must price the financing undertaking it is offering and establish how its documents will reach the contractual trigger.

These are later tender terms, separate from the 2018 contract and its settlement. They show how a buyer's payment timetable and a bidder's financing requests can be examined directly, alongside the engineering rate, before the next price is fixed.

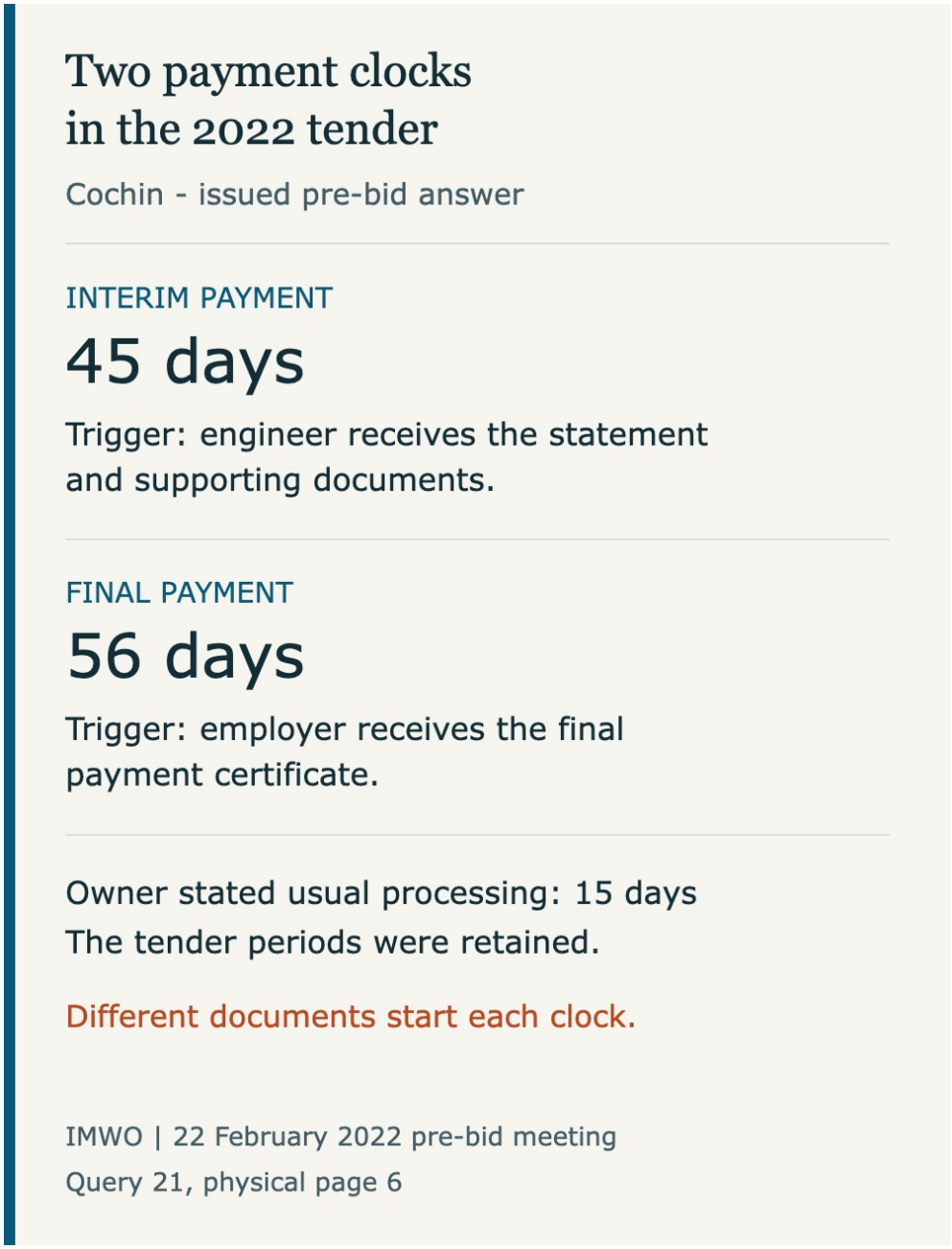


Figure 2. IMWO diagram of the issued 2022 pre-bid answer. The two periods start from different documents; the port's stated usual processing time did not amend them. Graphic: IMWO.

5. The vessel can earn standby while the programme stays nearly on time

The Singapore judgment in *CWP v CWQ* concerns an anonymised port-dredging subcontract governed by English law. The spread comprised a hopper dredger, a cutter and two split hopper barges. The original 90-day period ended on 24 August 2017; the works finished two days later. [8, paragraphs 7-12]

Article 3.9 provided hourly standby compensation for qualifying stoppages, with exceptions for specified contractor-responsible events. Its breakdown exclusion contained a specific exception for hopper breakdown or damage caused by dredging boulders. The arbitral majority allowed

compensation without requiring delay beyond the completion period. A 2023 challenge to the award failed under Singapore's restricted setting-aside review. [8, paragraphs 11, 15-18, 22, 53-56, 106]

The commercial distinction is between a vessel's lost productive hours and the completion date for the whole job. A spread can lose earning time, recover production later and finish close to schedule. Recovery may use longer working hours, a different sequence or the remaining programme allowance. Those measures change the final date; they do not erase the earlier occupation of the vessels.

For a quantity-paid spread, the productive hour generates revenue through the volume accepted. An eligible standby hour earns through a different contractual mechanism. The tender therefore contains two prices for two operating states. A completion-only review misses the second state and can understate the amount payable even on a job with a small overall overrun.

The case's import-clearance dispute illustrates why the event record needs more than an allegation of slow administration. The tribunal considered security clearance, agent actions, customs documentation and the barges' idle period. The judgment records the majority's conclusion that the relevant stoppage fell outside the contractor-responsible exceptions. It also records the employer's evidence of prompt customs payment after receiving the invoice. [8, paragraphs 68-71, 81-93]

The payment question consequently depends on the precise contractual allocation and the cause of the occupied time. A project diary should identify which vessel was ready, the operation it could otherwise perform, the missing permission or access, the time it became available and any overlapping breakdown. A breakdown entry also needs the cause: this particular clause treats boulder-related hopper damage separately. Those records let the assessor distinguish payable occupation from the operator's own downtime and prevent two claims from occupying the same hour.

Weather raised a further allocation question. The majority treated the typhoon-related stoppages under the specific compensation arrangement rather than the employer's proposed force-majeure treatment. Its interpretation addressed that wording within the particular contract. [8, paragraphs 95-106]

The drafting consequence is substantial. A tender can allocate ordinary adverse-weather standby to an hourly schedule, leave it in the production rate, or provide defined relief. These choices create different bid prices and payment outcomes. They require a common weather and operating basis so that bidders price the same undertaking. Leaving a broad stoppage clause beside a general force-majeure clause pushes that allocation into a later dispute.

A contrasting account at Haldia

DCI's 2021-22 annual report records a government-audit objection to INR 26.576 million of idle-time income for 1-5 January 2022. The preceding maintenance contract had ended, and the extension began on 6 January. The audit cited the absence of an agreement for the intervening days. Management relied on legal advice supporting the claim, but also reported making the necessary accounting entries on the auditor's advice in the half-year ended 30 September 2022. [4, government-audit comments and management response]

The contrast with *CWP v CWQ* is the payment authority. One record contains an agreed stoppage clause and an award applying it. The other records a contested attempt to recognise income across a

contract gap. Those two claims require different recovery assessments before they can support a cash forecast.

A fleet programme that continues through an extension negotiation needs an instruction covering the intervening period, the permitted work or standby and the applicable payment basis. Booking income while that authority remains contested does not supply the cash needed to keep the spread available. The exposure should remain visible to the people authorising continued occupation.

6. Moving the dredger changed two contract accounts

The 2025 CAG audit records Dredge XX leaving Gangavaram for Kamarajar in March 2021 before the former campaign's quantity was complete. Gangavaram's rate was INR 400/m3, against INR 165/m3 at Kamarajar. The audit identified 32,122.56 m3 of remaining work and INR 2 million of demobilisation charges disallowed. Management linked the move to a Kamarajar damages waiver; CAG separately recorded INR 29.6 million waived and INR 14 million recovered there. [3, section 7.1.5.1 C.2 and D.2]

Multiplying the remaining quantity by the rate difference produces INR 7.549 million of potential additional revenue. Adding the disallowed fee gives INR 9.549 million, consistent with the audit's rounded INR 9.5 million account. The first component is an opportunity estimate; the second is a rejected charge. Neither is a measurement of the incremental profit that another few days of work would have produced.

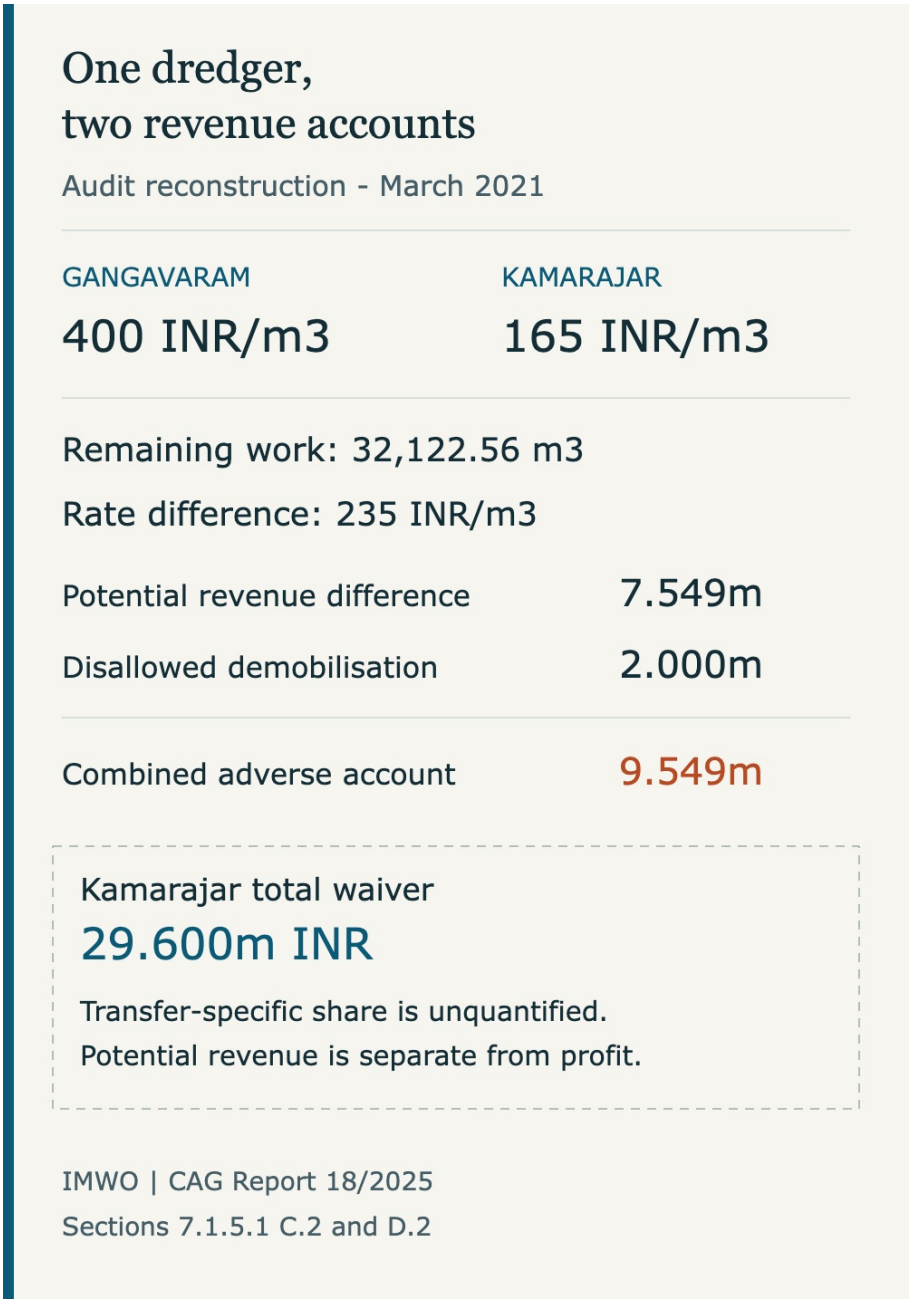


Figure 3. IMWO reconstruction from the audit. Potential revenue and a disallowed charge are separated. Kamarajar's total waiver is shown as a decision context, not credited in full to the transfer. Graphic: IMWO.

The apparent comparison between an INR 29.6 million waiver and an INR 9.5 million adverse account is incomplete. The fleet decision needs the part of the waiver actually dependent on that deployment. It also needs the costs of staying, transferring and performing the receiving work, together with the effect on any replacement vessel promised to the first port. Crediting the whole waiver to the move assumes the counterfactual that the full amount would otherwise have remained payable.

The operator's relevant comparison is the change in contribution across both jobs. Remaining revenue at the first port is reduced by the expenditure required to earn it. The receiving job adds its own revenue and expenditure. Recoverable fees, transfer cost and the incremental damages outcome complete the comparison. The same vessel's calendar can support only one of those sequences at a time.

This explains why a higher unit rate alone cannot settle a dispatch decision, and why a waiver request cannot be treated as cash already earned. The work remaining, payment basis, cost to complete and conditional relief must be dated to the decision. A later concession can improve the final account while leaving the original deployment approval poorly supported.

The employer's side also changes. Releasing a dredger early can leave an uncompleted quantity, a substitute-spread promise and an unresolved demobilisation charge. Before agreeing the release, the port needs to decide how the remaining obligation will be performed and what happens if the replacement fails to arrive. The release instruction and payment account should record that bargain together.

7. What a low price has to survive

The case files identify three tests for a dredging price.

First, it must buy the promised physical outcome. At Cochin, a discounted fixed-price award met a dispute over the starting seabed and the depth to be maintained. The important pre-award comparison is the vessel occupation required by that undertaking, including the opening recovery work and the recurring maintenance duty. A discount against an employer estimate answers a procurement question; the production basis determines whether the contractor can deliver it.

Second, the price must survive the contract's alternative operating states. *CWP v CWQ* shows why working time, eligible standby and contractor-responsible downtime have different payment treatments. Haldia shows the exposure when continued occupation crosses a gap in commercial authority. A bid comparison needs the same assumed access, operating windows, stoppage allocation and extension terms for each offer.

Third, the contractor must be able to turn its entitlement into usable cash without accidentally surrendering another asset. Cochin's released bills and disputed deposit show the price of a settlement scope that overtook the original claim. The fleet-transfer case shows why expected relief and foregone revenue also need separate treatment. Combining them into a single number labelled outstanding conceals the decision that each item requires.

Reducing the price for the same physical undertaking leaves less room for underestimated vessel occupation or an unpaid operating state. Cochin shows a further exposure: a compromise can release part of the cash while closing the recovery route for a separate asset. Bid approval and settlement approval therefore need the same underlying account, with the physical obligation, funding requirement and treatment of each remaining balance made explicit.

Reconstruct the account before approving the price or the compromise

Decision	Record that changes it	Commercial consequence
Fix a maintenance price	Opening survey, required depth by area, recovery date and rule for change before commencement	Recovery work and recurring deposition compete for funded vessel time
Assess a shortfall	Dated performance record, deduction clause and complete calculation	Establish the assessed deduction and identify the separate cash actually withheld
Reserve a spread	Vessel-ready times, access and permits, breakdowns and standby terms	Allocate occupied hours to a payable operating state or the operator's own expense
Move a vessel	Remaining contribution on both jobs, release instruction and conditional relief	Expose the incremental benefit of transfer and the first job's unfinished obligation
Sign a settlement	Itemised disputed bills, retention, tax, interest, fees and surviving rights	Price the whole compromise alongside the immediate receipt
Retain a receivable	Effective settlement, employer acknowledgement, recovery action and receipt	Keep accounting recovery assumptions aligned with the commercial record

8. IMWO's proposed payment discipline for marine works

Owners: resolve the opening obligation before comparing prices

A depth-based maintenance tender should show the baseline surface, required outcome by area, initial recovery period and treatment of deposition between the tender survey and commencement. Where a later survey changes the starting obligation, the tender should specify the adjustment or allocation before mobilisation. This creates a comparable undertaking for bidders and gives the engineer a usable basis for assessing performance.

During delivery, each deduction should carry its clause, survey or event reference, period, base amount and calculation. The payment record should also show the amount released for the other work. Cochin demonstrates why the engineer's shortfall assessment, an interim withholding decision and a final contractual recovery need their own approval trail.

Contractors: fund the event that interrupts earnings

Bid approval should cover productive occupation, eligible standby, repairs, survey and corrective work, together with the relevant receipt dates. A fleet transfer should be approved against the contribution of both jobs and the relief actually conditional on the move. A hoped-for waiver stays conditional until its authority and amount are established.

The commercial team signing a release or settlement should use an itemised closing account agreed with finance and operations. Retention intended to survive needs an express treatment. A wider

surrender needs its own approval value. The immediate cash receipt and the assets given up belong in the same decision paper.

Engineers and certifiers: connect the seabed record to the account

Survey records should identify the contract area, reference surface, required depth and date of assessment. Stoppage records should identify the vessel, readiness, cause and start and finish times. The certificate should show how those records become measured work, a deduction or an eligible standby amount. This provides a basis for resolving an affected item while the rest of the account continues through its payment route.

Boards and finance providers: distinguish cash from recovery expectations

A contract review should reconcile the gross application, assessed amount, withheld sum, settlement treatment and bank receipt. For each residual balance, identify the last effective document supporting recovery and the next decision required. After a compromise, update the recovery assessment before using the old receivable to support a funding or profit forecast.

A common engineering and payment basis lets bidders compete on the same undertaking. It exposes the cost of changing either basis and keeps a vessel's operating needs visible through the final account.

Evidence and calculations

The investigation uses original port contract registers and accounts, DCI financial statements, CAG's 2025 audit and the published Singapore judgment. The Indian case files concern historical contracts; the Singapore court anonymised the port and parties. Audit criticism, company responses, arbitral findings and the court's procedural decision retain their respective attribution. Money is stated in nominal INR; one crore equals INR 10 million and one lakh INR 0.1 million. Original tax treatment is retained in the settlement amounts. Arithmetic reconciles the disclosed account and rate comparison; it supplies no assumed vessel cost or project margin.

Sources

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4. Dredging Corporation of India, Annual Report 2021-22, printed pages 74 and 77-78 / physical pages 74 and 77-78: government-audit comments and management replies on Cochin retention and Haldia idle-time income.

5. Dredging Corporation of India, Annual Report 2022-23, printed page 56 / physical page 56, statutory auditor's qualification 7; note 30.14, physical page 82, management position. The original statements precede the later restated comparative figures.

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8. General Division of the High Court of Singapore, CWP v CWQ, [2023] SGHC 61, 16 March 2023, especially paragraphs 7-18, 22, 53-56, 63-94 and 95-107; court PDF.

9. Cochin Port Trust, Addendum / Corrigendum No. 1: 2022-24 maintenance-dredging tender, meeting held 22 February 2022, tender T15/T-1958/2022-C; physical pages 2 and 6, queries 3, 5, 21 and 22. Bidder requests and the port's rejection are separate columns.