IMWO
International Marine Work Organization

MARINE INVESTMENT / THREE CASE FILES

From Committed Capital to Working Assets

Cargo, revised marine design and contract changes determine when an investment becomes productive.

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Duqm / Aqaba / Jubail

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The decision before the next commitment

Duqm completed its commercial-terminal infrastructure below the original project budget, while the cargo categories supporting its appraisal remained far below forecast. At Aqaba, a September financing approval was followed by disclosure of a substantially revised marine design. In Jubail, a firm-fixed-price naval-base contract accumulated options, a training facility, deletions and utility changes. Each case changes the decision about what to fund, order or release next.

For an owner or contractor, the exposure lies in committing resources ahead of the condition that makes them productive. A crane requires paying cargo. A pipe-installation spread requires an executable alignment, shore support and an agreed environmental sequence. A completed wharf requires its fuel, electrical and control connections. The relevant investment account follows those dependencies through to a working asset.

This edition examines three cases in Oman, Jordan and Saudi Arabia. It reconstructs Duqm's cost and cargo assumptions, the financing and revised marine scope of the Aqaba-Amman water project, and the original transaction history of Jubail's MMSC facilities contract. The resulting decisions concern equipment timing, marine mobilisation and the treatment of scope change in an active base.

Duqm: most of the budget reduction came from unused provision

AIIB financed Duqm's IP2 roads, yards, utilities, buildings and piled crane beams behind an existing commercial quay. The completion note records an original Serka-MSF contract of OMR 107.334 million and an OMR 12 million claim settlement. The settlement, equivalent to USD 31.2 million, is included in the reported USD 270.03 million infrastructure cost. The wider project account also contains supervision, management and capitalised financing fees. [2]

The reported project total fell from USD 353.33 million at appraisal to USD 292.95 million. Unused contingency accounts for USD 37.94 million, or 62.8% of that USD 60.38 million reduction. Base costs fell by USD 18.20 million and capitalised fees by USD 4.23 million. The published rounded components leave a USD 0.01 million reconciliation residual. [2]

Account item	USD million	Treatment in the cost bridge
Original project total	353.33	Appraisal budget, including provision and financing fees.
Base-cost reduction	18.20	Infrastructure, supervision and management combined.
Unused contingency	37.94	Provision released; 62.8% of the total reduction.
Lower capitalised fees	4.23	Financing-cost movement.
Reported final project total	292.95	Includes the settled construction claim; rounded components differ by 0.01.

A board evaluating a later investment needs that bridge before using the underspend as evidence of spare economic capacity. Released contingency reduces financing required for the delivered package. Future cargo receipts still have to carry the operating platform and any additional equipment. Keeping those accounts separate reveals how a project can meet its construction budget while demand develops more slowly.

AIIB's learning review rated the project Successful overall and its efficiency Less Than Efficient. Those two assessments fit the record: the infrastructure provides a usable terminal platform, while the early utilisation and economic case require their own examination. [3]

Duqm: the forecast's valuable cargo arrived slowly

The 2016 appraisal forecast 9.199 million tonnes of dry bulk and 2.435 million tonnes of breakbulk for 2023. AIIB's later review records 1.109 million tonnes of dry bulk and 0.238 million tonnes of general cargo. Matching those categories gives 1.347 million tonnes against 11.634 million, or 11.6% of forecast. The review's Table 3 reports about 16,000 TEU, against the appraisal's 921,000 TEU. [1,3]

The wider port handled substantial liquid bulk: the review records 7.084 million tonnes in 2023. The appraisal located liquid-terminal and refinery benefits outside the commercial-terminal financial case. Liquid cargo therefore belongs in a separate operating account when testing the original dry-cargo and container investment.

The appraisal's flat tariffs expose the importance of the mix. At OMR 50 per TEU, forecast containers contribute OMR 46.05 million to a three-category annual benchmark of OMR 58.28-60.71 million. Dry bulk uses OMR 0.8 per tonne and general cargo OMR 2-3 per tonne. Holding those rates constant and substituting the reported quantities produces OMR 2.16-2.40 million. This is a quantity sensitivity at appraisal prices; actual receipts depend on the applicable tariffs, services and commercial arrangements. [1; IMWO calculation]

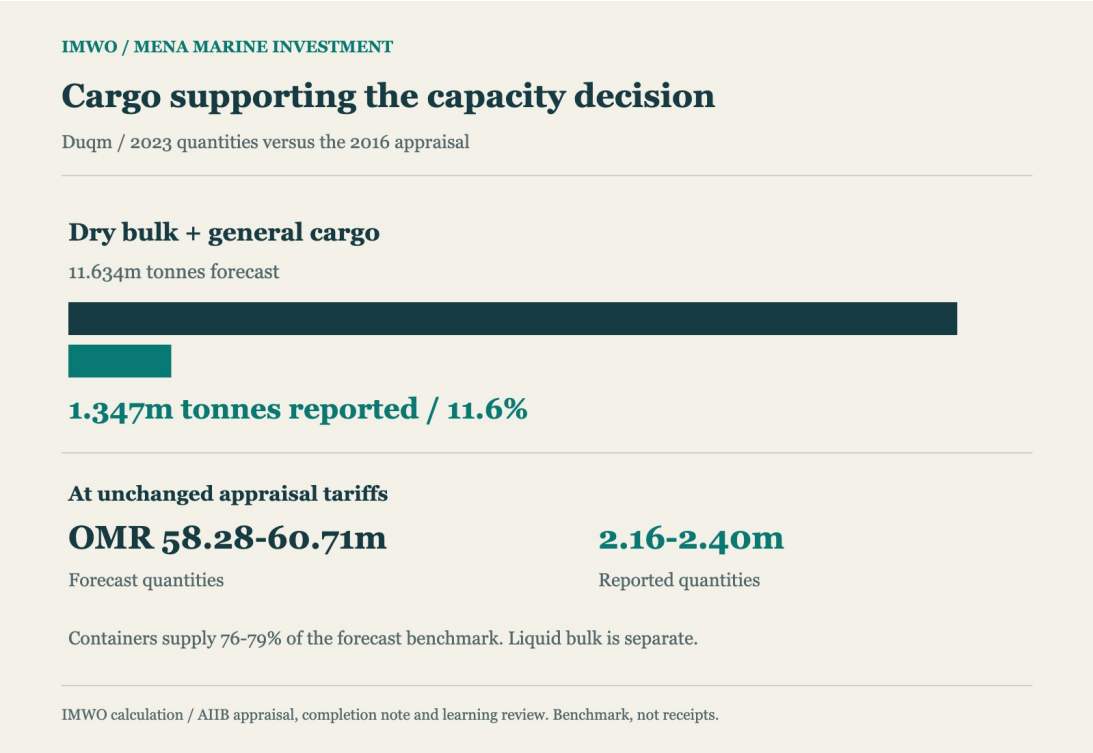


Figure 1. Cargo mix controls the income supporting the next capacity increment. The benchmark holds the appraisal's tariffs constant and uses the learning review's rounded 16,000 TEU in Table 3. Liquid bulk remains outside the matched commercial-terminal calculation. Sources: AIIB appraisal and learning review. Graphic: IMWO.

The forecast depended on identifiable investments outside IP2. Mineral exports needed rail connections. Container demand relied on industrial production: the appraisal converted 22 million tonnes of industrial goods into 1.4 million loaded TEU and 1.68 million TEU including empties by 2031. The learning review identifies delayed railway and industrial development among the explanations for lower traffic. [1,3]

An equipment approval should therefore name the producing tenant or mineral origin, its inland connection, handling agreement and service start. The downside case should defer that cargo while retaining committed asset costs. Buildings, networks, lighting, pumps and crane support require a minimum service regime through a low-throughput year. A model that reduces every cost in proportion to revenue can understate the carrying burden.

Aqaba: match each financial instrument to its recipient

DFC's 16 September 2026 decision approved a loan to National Carrier Project Company and political-risk insurance for the equity investors. Its public information packet specifies ceilings of USD 1 billion for the loan and USD 800 million for the insurance. The latter protects an investment exposure; it adds no second USD 800 million loan principal to the construction cash account. [4,5]

The same recipient-and-instrument discipline applies to the other public disclosures. EBRD lists a senior loan of up to USD 475 million and conditional concessional contributions of up to USD 30

million and EUR 7 million. IFC's February approval lists USD 375 million of loan and USD 32 million of risk management within an indicative USD 407 million investment. Its disclosure remains labelled Pending Signing, last updated 25 February. [6,7]

Institution	Disclosed instrument	Recorded decision or condition
DFC	Up to USD 1 billion loan to NCPC	September board approval; the public packet describes financing and environmental requirements.
DFC	Up to USD 800 million political-risk insurance	Cover for equity investors associated with Meridiam and Suez.
EBRD	Up to USD 475 million senior loan	Approval dated 25 February; additional HIPCA contributions have stated amendment conditions.
IFC	USD 375 million loan and USD 32 million risk management	Indicative February approval; disclosure status Pending Signing.

These records support a financing schedule with a named recipient, instrument, decision date and next release condition. The September DFC packet also describes phased resettlement planning along the 438-kilometre conveyance corridor. Its expectations for individual plans retain their September dates. For construction cash planning, the decisive entries are the agreed financing availability and the release of the particular land and work packages that the draw will fund.

The public instruments support a large water system: annual desalination capacity of 300 million cubic metres, the conveyance pipeline and solar generation. Its useful output depends on the connected system. A coastal package can consume capital well before the conveyance, power and operating systems deliver water to customers.

Aqaba's October design changes the marine purchase

The October 2026 interim environmental assessment replaces the proposed new intake lagoon and pumping station in the December NTS with use of existing CEGCO/SEPCO facilities. It attributes the change to asset-condition surveys, engagement with SEPCO and endorsement by Jordanian authorities. The floating oil boom, bubble curtain and fish-return arrangements remain in the revised scheme. [9,10]

The outfall changed for a different reason. Detailed bathymetry and construction review showed that retaining the earlier alignment would extend trenching to around 60 metres water depth, require a much wider excavation zone and introduce installation difficulties near existing infrastructure. Diving beyond the project's 35-metre limit would require a different diving method. The selected canyon route places the diffuser at approximately 16-27 metres and changes its configuration. [10, pages 19-22]

This changes the estimate at several connected points. Reusing the intake removes a new marine excavation package but introduces an existing-asset connection and modification task. Moving the outfall changes dredging, bedding, pipe handling, diver-supported connections and the logistics of protection material. Estimating from the former new-lagoon quantities would buy the wrong sequence of work.

The October indicative method provides a concrete starting quantity: approximately 20,000 cubic metres of excavation, with 8,500 cubic metres expected to return as backfill and 11,500 cubic metres sent to designated onshore disposal. The expected split is 42.5% reuse and 57.5% disposal. Final quantities remain dependent on design, the marine subcontractor's method and encountered ground. [10, page 29; IMWO calculation]

Work stream	October indicative basis	Estimating consequence
Excavation and material handling	About 20,000 cubic metres; granular sediments expected from available investigations	Price excavation, transfer to shore and handling against the selected ground and method.
Backfill and surplus	About 8,500 cubic metres reused; 11,500 cubic metres to onshore disposal	Carry separate storage, rehandling and truck-disposal quantities.
Pipe preparation and marine support	DN2800 HDPE strings, ballast blocks, crane and flat-deck barges, tugs and divers	Link string readiness, tow, positioning, flange connection and survey to the installation spread.
Port logistics	Proposed support from Royal Navy Port, about 1.5 nautical miles away	Confirm storage, welding, precast and rock-loading access before fixing productive cycles.

The material split matters to the marine cycle. Excavated material has to move ashore; reusable material needs temporary holding and return, while surplus needs onward transport. The dredger's achievable output can be constrained by shore unloading, stockpile space or truck availability. A single excavation rate conceals those different receiving operations.

The assessment describes the port arrangements as still under discussion and the marine method as indicative, pending detailed development and appointment of the marine subcontractor. Anchor plans and some connection details were still developing. A plant commitment should therefore bind the installation sequence to confirmed shore support and released working areas, with the price and programme consequences of changed arrangements addressed in the package agreement.

Environmental controls occupy the construction programme

The October method requires hard-coral translocation within the enclosed footprint before dredging. Sediment containment and underwater survey accompany the work. These activities determine when a location becomes available for excavation and pipe placement. The marine planner needs their completion and verification dates in the same location schedule as the dredger and crane barge. [10, pages 29-30]

The assessment reports lower modelled residual ecological impacts under the revised design while showing a larger unmitigated outfall construction footprint. It attributes the result to changed location, improved habitat information and mitigation. The predicted benefit depends on implementation and subsequent ecological performance; footprint, habitat cover and post-mitigation residual area measure different things.

Its assurance programme connects that environmental performance to equipment procurement. Hazard and operability reviews, vendor data, analyser range and calibration, dosing systems, factory tests and site loop checks all feed the discharge-control system. Commissioning is intended to establish the discharge signature across production steps. A pipe package and a functioning discharge-control system therefore have connected acceptance tasks. [10, pages 95-96]

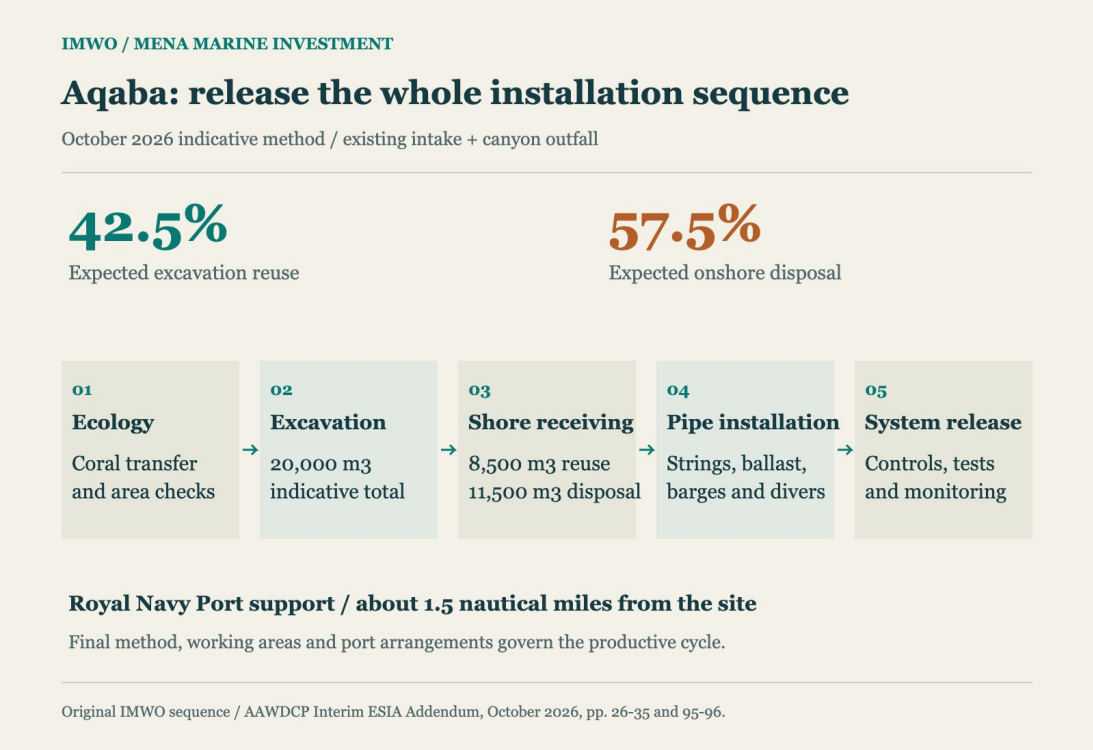


Figure 2. Work-release logic for the revised Aqaba marine scheme. This is an original programme diagram, with qualitative sequence and no reproduced site geometry. The October assessment's quantities and method remain indicative. Graphic: IMWO.

The December 2025 disclosed action plan assigns different timings to design, contract and biodiversity actions, including requirements before signing or first disbursement. The October interim assessment

supplies a later engineering and environmental basis. Its permitting section states that existing environmental approvals cover the amendments and that routine construction permits still require coordination. Each statement retains its document date and purpose. [8,10]

For the contractor, the bid review should connect each environmental control to its work location, responsible specialist, budget, verification record and release date. For the owner and financing team, the corresponding question is whether the funded package includes the equipment, monitoring and operating response needed to maintain the projected discharge performance. Those costs continue beyond pipe installation.

Jubail: reconcile the fixed-price contract before judging growth

USAspending's original award and complete transaction history identify the design-and-construction contract for the MMSC facilities at King Abdulaziz Naval Base as W912ER23C0002. AICI-Archirodon JV LLC received the USD 319,535,250 award on 8 May 2023. The recorded scope includes wharf and pier facilities, a harbormaster tower, maintenance and fueling facilities, infrastructure and utilities. The award record classifies its pricing as firm fixed price. [11,12]

The 28 recorded transactions through 7 July 2026 reconcile exactly to USD 400,172,871.91 of obligations and exercised value. That is USD 80,637,621.91 above the initial award, an increase of 25.24%. The transaction descriptions explain why a same-scope escalation percentage would misread the account.

Contract item	USD million	Recorded scope movement
Initial award	319.535250	Original 8 May 2023 contract.
Exercised options	+69.842802	P00001 and fuel-system options 2 and 3 under P00002.
Training facility	+29.000000	P00004, 29 February 2024.
Descope and wharf value engineering	-20.330629	P00003 removes three line items; P00005 records VE wharf design.
Other net changes	+2.125449	Remaining positive and zero-value transactions.
Current obligated and exercised value	400.172872	Exact underlying cents total USD 400,172,871.91.

Options and the training facility contribute USD 98.843 million of gross additions. The descope and wharf design value-engineering entries remove USD 20.331 million. Other net additions supply USD 2.125 million. This bridge places the growth primarily in changed purchased scope; an assessment of the contractor's original-price performance needs a constant-scope account.

The July entry adds USD 45,102.95 for relocation of a ring main unit at KANB 05. The current all-options value is USD 503,225,000.91, leaving USD 103,052,129 between that field and exercised value. That difference describes potential scope in the public award account. Procurement and resource plans need the actual option exercise and instructed package before committing its delivery resources.

Zero-dollar changes still consume the workfront

The ledger contains an explicit forty-two-day extension for access delays in November 2023 with zero additional obligation. Later zero-value records include building fire-main rerouting, fuel and communications rerouting, another cable-related reroute and a medium-voltage cable connection. The financial column alone would omit those events from a view of delivery change. [12]

Positive-value modifications expose further connection work: sewer and electrical tie-in, a diesel-pipe reroute and tank survey, a wharf marine-utility trench connection, and fuel pump-house chiller and HVAC work. Each description locates a specific interface between the waterside facility and its operating services. The published ledger gives amounts and descriptions; the executed change documents control the detailed design, responsibility and agreed programme effect.

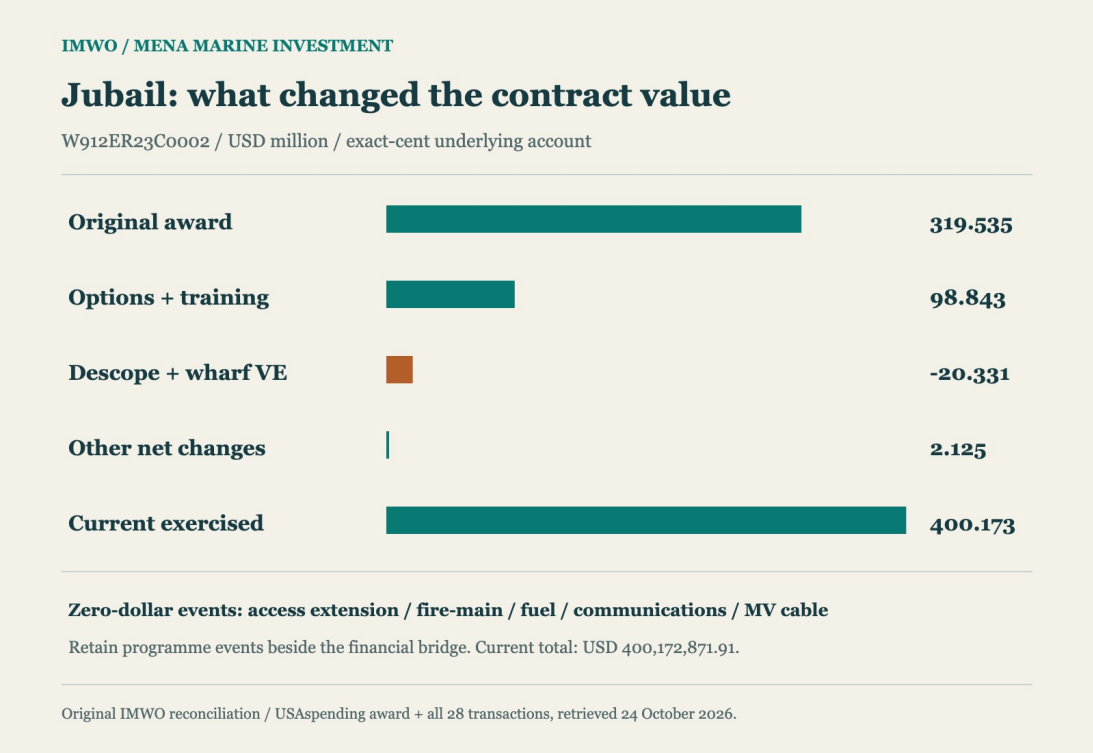


Figure 3. Contract value and programme events require linked records. The exact-cent transaction total is USD 400,172,871.91. Zero-dollar modifications remain visible in the event lane. Source: original USAspending award and transaction-history responses retrieved 24 October 2026. Graphic: IMWO.

For a facilities programme inside an operating base, the completion account should follow each connection from approved route and access window to isolation, installation, testing and service release. A rerouted fuel line can change sequencing even where the agreed adjustment has zero

additional value. Conversely, a funded equipment change still needs its drawing, delivery and test sequence before the associated system becomes usable.

USAspending reports USD 41.5 million of account outlays. That aggregate has a different reporting basis from the obligation ledger and from contractor certificates or receipts. A package cash forecast should use the agreed payment events and the actual certificate and receipt account; converting the public outlay ratio into construction progress would mix those populations.

An investment release account for each working system

IMWO proposes a release account for the next irreversible commitment. The account names the system being put into service, the expenditure proposed now, the condition that releases productive use, the party controlling that condition and the carrying cost if it slips. It is maintained at the cargo stream, marine installation area or utility-system level used to make the actual investment decision.

At Duqm, the entry is the next equipment increment and its named cargo origin, producing asset, inland connection and handling-income start. Delay that stream in the downside case while retaining committed asset-service costs. The board can then compare an immediate order with a smaller or deferred increment on the same demand basis.

At Aqaba, the entry is the marine spread and the released sequence that keeps it productive: ecological preparation, excavation, shore receiving, prepared strings, barge access and diver-supported installation. Show the funding-availability condition beside that sequence, together with procurement and operating verification for the discharge system. The owner can then see which decision releases a productive spread and which merely starts carrying its cost.

At Jubail, the entry is a connected fleet-support system. Keep original scope, option exercise, additions and deletions in the value account. Keep access, route changes, isolation, testing and service release in the programme account, including zero-dollar events. The commercial review can distinguish new scope, a changed sequence and the cost of retaining resources through that sequence.

Owners should release the scope, site access and technical decisions that support a commitment together. Contractors should price the resource and receiving operations on the same boundaries, with the agreed consequence of a changed sequence. Financing teams should test the period between expenditure and usable output against committed funding and carrying costs. These cases give that discussion identifiable cargo, material, connection and verification records.

Basis of this edition

Duqm is a historical appraisal-to-completion-and-operation comparison using the bank's 2016 appraisal, 2023 completion account and March 2025 learning review, published in June. The original-tariff calculation is a controlled quantity sensitivity. The review's conflicting container-unit row is excluded in favour of Table 3's rounded TEU figure; its unavailable financial model prevents a recomputed return.

Aqaba combines the dated financing disclosures with the December 2025 NTS and draft action plan and the October 2026 Rev 0 interim marine assessment. The October document controls the design-change discussion. Its environmental projections and indicative construction quantities retain their stated assumptions and next design steps. The September DFC packet version was retrieved in October; individual land-plan expectations retain their September basis.

Jubail uses the original federal award response and all 28 transaction rows returned in an award-specific request on 24 October. Amounts were reconciled in cents before rounding for the table. The case register preserves currencies, dates, instrument types and scope. The original July MENA edition and its project snapshot remain available as a previous edition.

Sources

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4. DFC. September 2026 board information packet. Jordan summary, physical pages 12-16; retrieved packet modified 22 September.

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6. EBRD. Jordan Water Desalination PPP, project 53620. Approval 25 February 2026; disclosed finance and environmental documents.

7. IFC. Aqaba-Amman investment information, project 47924. Approval 19 February; last updated 25 February 2026.

8. NCPC/SLR, disclosed by EBRD. Draft environmental and social action plan. December 2025; dated design, contract and biodiversity actions.

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