

ADB

Advancing Green Ports in the Pacific SIDS

From resilient lifelines to low-carbon maritime
gateways

Eighth Global dialogue and the eighth investment-focused event under the Sharm
el-Sheikh mitigation ambition and implementation work programme



Industrial decarbonization finance is not one problem — it's two

Mainland Asia

How do we decarbonize industry?

- Large emitters: steel, cement, chemicals, aluminum
- Mature private sector & bankable pipelines
- Big-ticket mitigation: electrification, H₂, Carbon Capture, Utilization and Storage

Pacific SIDS

We have little industry to decarbonize.

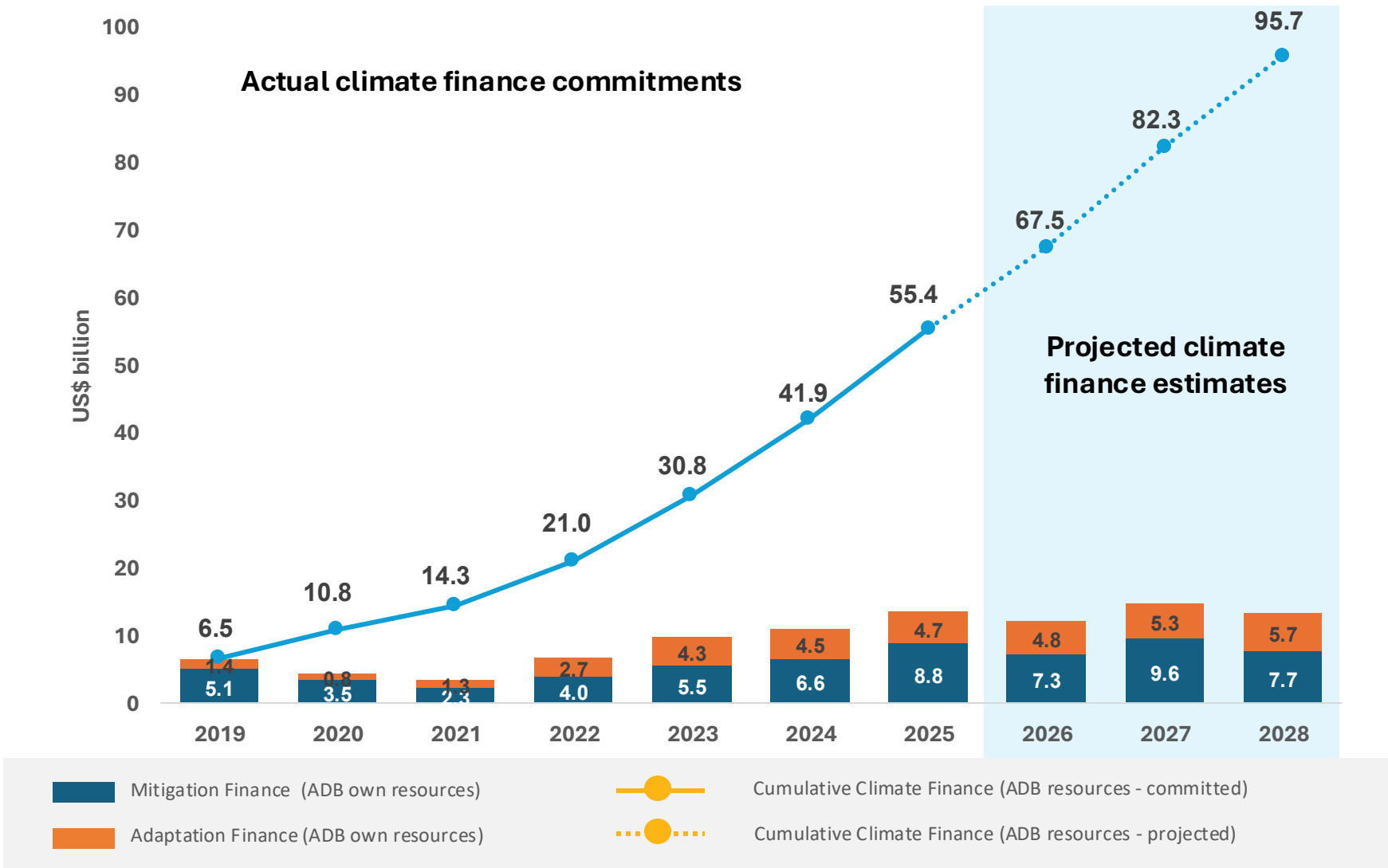
- Small emissions dominated by fisheries, tourism, ports, utilities
- Small investments, dispersed markets; thin private pipelines
- Diesel-dependent island grids limit electrification

ADB's differentiated response: flagships, replicable financing models for large industrial economies — and a deliberately different approach in SIDS where industry is thin.

The Scale Challenge: Why the mainland Asia model doesn't transplant to SIDS

Dimension	Mainland Asia	Pacific SIDS
Emissions scale	Millions of tCO ₂ per project	Hundreds–thousands of tCO ₂ per project
Transaction cost per tonne	Low - large projects absorb prep cost	High - same prep cost, tiny mitigation return
Private pipeline	Deep corporate & capital-market access	Thin private sector, limited bank capacity
Grid readiness	Generally supports electrification	Isolated, diesel-dependent island grids

ADB Climate Finance Commitments and Projections (2019–2028)



Notes: Climate finance from OCR, COL, and ADF only. ADB estimates, as of 26 Jan 2026.
Amounts for 2026 to 2028 are from WPBF 2026–2028.

ADB's Sustainable and Resilient Maritime Initiative (SRMI)

A regional platform to help Asia and Pacific Developing Member Countries move from resilient ports to low-emission maritime systems

Modernize ports

- Integrate energy efficiency, digitalization, resilience and clean technologies into port upgrades
- Apply a life-cycle approach to reduce emissions and environmental impacts

Close the financing gap

- Proposed US\$1 billion Sustainable and Resilient Maritime Fund (SRMF)
- Blended finance using loans, grants and equity
- Support both upstream policy/project preparation and downstream infrastructure, helping de-risk investments.

Enable maritime decarbonization

- Accelerate deployment of alternative fuels and zero-/near-zero-emission technologies
- Support green shipping corridors and regional cooperation
- Build the policy and institutional foundations needed for transition

Regional Focus

For Pacific SIDS, SRMI provides a pathway to move from individual resilient port investments toward a coordinated pipeline of low-carbon, climate-resilient maritime infrastructure

Why Green Ports Matter in SIDS

Ports are lifelines - but their remoteness, fuel dependence and climate exposure make decarbonization unusually difficult.

Lifelines to essential services

- Sea transport connects dispersed islands to food, fuel, health, markets and emergency supplies.
- More than 90% of goods in Pacific islands move by sea
- Tonga: >98% of imports arrive by sea.
- In Tuvalu, sea transport is the only connection between Funafuti and the outer islands.

High climate exposure

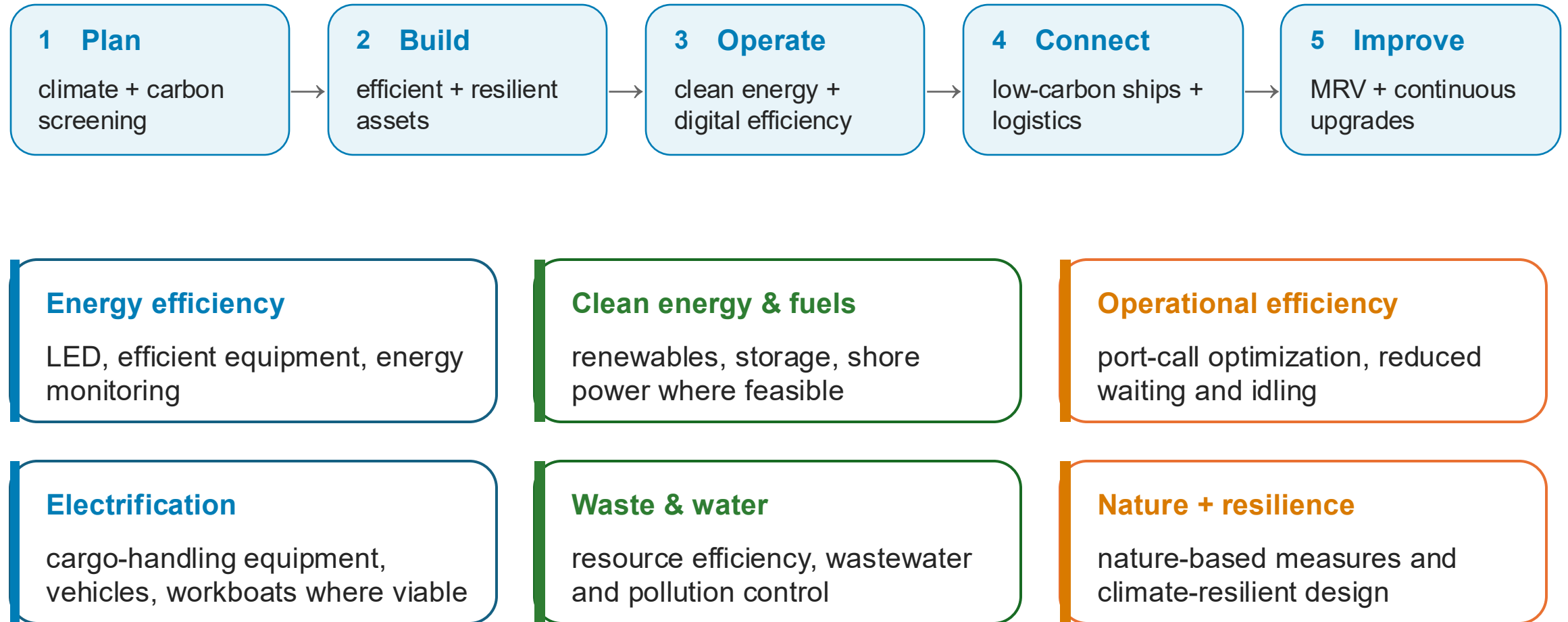
- Sea-level rise, storm surge, extreme waves and heat can disrupt port operations.
- A port closure is not just a transport problem - it can interrupt national supply chains and disaster response.
- Green-port investment therefore needs resilience built in from the start.

A mitigation opportunity

- Pacific domestic shipping remains heavily dependent on fossil fuels.
- Fiji's maritime transport was estimated at 214 Gg CO₂e in 2016—an illustration of the scale of the challenge, not a regional total.
- **2050 Strategy for the Blue Pacific Continent** promotes investments supporting energy efficiency and transition away from fossil fuels
- **Pacific Blue Shipping Partnership target:** 40% emissions reduction by 2030 and zero emissions by 2050, conditional on appropriate finance.

What does a “Green Port” mean in a Pacific SIDS context?

A life-cycle approach combines mitigation, resilience and environmental performance across the port system.



Case study 1 | Nauru's Aiwo Port: efficiency + resilience + blended finance

A small-island port can generate mitigation benefits by fixing a fundamental operational bottleneck: unreliable ship access.

The intervention

- Climate-resilient wharf, breakwater and berth pocket; port buildings and container storage upgraded.
- Institutional strengthening for the Nauru Maritime and Port Authority.
- New infrastructure enables year-round access by oceangoing vessels and more efficient cargo operations.
- ADB-supported design links resilience with operational efficiency rather than treating them as separate investments.

Why it matters for mitigation

- Cuts fuel use through greater port efficiency
- Shows how resilience investments can deliver mitigation co-benefits.
- Blended finance makes higher-quality infrastructure possible in a small-island context.

US\$82.7 million total project financing

ADB

\$24.3m

GCF

\$26.9m grant

Australia

\$14.1m

Nauru

\$17.5m

**Expected climate benefit: 535,400 tCO₂e avoided
170-metre climate-resilient wharf + breakwater**

Case study 2 | Samoa's Apia Port: make policy part of the investment

The project shows how a port upgrade can institutionalize green operations—not just build resilient infrastructure.

Infrastructure

- ADB-supported upgrade of Samoa's main international gateway.
- Breakwater reconstruction strengthens resilience to waves and extreme events.
- Terminal and operational improvements support safer, more efficient port activity.

Enabling framework

- Project includes a gender-sensitive Green Port Policy.
- At least three Green Port Initiatives are being piloted.
- Green-port practices are intended to be mainstreamed into Samoa Ports Authority operations.

Why it matters for mitigation

- Policy creates a platform for systematic energy, waste, pollution and resource-efficiency improvements.
- It allows future technology investments to be aligned with an institutional operating framework.
- **The lesson:** policy and capacity can be an investment enabler in their own right.

Case study 3 | Tuvalu: resilient connectivity as the foundation for future decarbonization

For dispersed atoll states, the first investment may be basic maritime access—creating the platform on which cleaner operations can later be built.

What ADB is supporting

- Climate-resilient small-workboat harbors in Niutao, Nui and Nukulaelae; boat-ramp rehabilitation.
- Transport-sector master planning and stronger operation & maintenance capacity.
- A modern passenger/cargo vessel, MV Manu Sina, supporting inter-island connectivity.
- In July 2026, ADB approved a further \$10m grant for preventive maintenance and asset management.

Decarbonization lesson

- Better harbor access and reliable vessel operations can reduce operational inefficiencies and improve service reliability.
- But the current projects are primarily connectivity, safety and resilience investments - not full port-decarbonization projects.
- The next step is to add emissions baselines, energy-efficiency measures, renewable charging/fueling options and MRV when technically and economically viable.

Financing and pipeline: move from individual projects to a regional investment platform

The financing challenge is not only upfront capital investment (CAPEX) - it is project preparation, technology risk, small transaction size and limited institutional capacity.

Policy + institutions + Technical Assistance support

regulatory frameworks, capacity, maritime planning

→ Policy + Institutions support
regulatory frameworks, capacity, maritime
planning

Prepare + de-risk + mobilize concessional finance

feasibility, design, project preparation, market development

→ Prepare + De-Risk support
feasibility, design, project preparation, market
development

Invest

green port infrastructure, clean energy, equipment and maritime assets

→ Invest support
green port infrastructure, clean energy,
equipment and maritime assets

Regional aggregation and Programmatic Approach is the opportunity

Bundle small-country demand, standardize MRV and technical specifications, and use blended finance to make small projects investable

What is holding Pacific port decarbonization back - and where are the opportunities?

The Pacific needs a pathway designed for small, dispersed maritime systems rather than a scaled-down version of large Asian ports.

Scale & economics

Small loads, dispersed islands and high unit costs

→ Aggregate demand and projects regionally

Technology fit

Alternative fuels, shore power and electrification may not suit every route

→ Match technology to vessel profile, grid and demand

Finance

High upfront costs + limited fiscal space + transaction costs

→ Grants/TA for preparation; blended finance for investment

Data & MRV

Limited port/vessel energy and emissions data

→ Build simple baselines and digital MRV into projects

Institutions

Small port authorities and limited specialist capacity

→ Regional standards, shared expertise and long-term O&M

Regional enablers already emerging

Pacific Blue Shipping Partnership targets 40% domestic-shipping emissions reduction by 2030 and zero emissions by 2050; Pacific One-Maritime Framework is being developed to harmonize maritime support.

Three Key Messages for Scaling Green Ports Across Pacific SIDS

1

Build resilience and mitigation together

Climate-proofing is not separate from decarbonization. Efficient, reliable ports can reduce waiting, disruption and fuel use while protecting lifeline connectivity.

2

Finance the enabling layer

Policy, institutional capacity, feasibility studies, MRV and project preparation are essential to turn small SIDS concepts into bankable investments.

3

Think regional, finance nationally

Country ownership should drive investment, while regional aggregation can reduce transaction costs, standardize approaches and unlock concessional/blended finance.

The Pacific opportunity

Use ADB-supported resilient port investments as the platform for the next generation of low-carbon maritime infrastructure - supported by strong national policy, regional cooperation and fit-for-purpose concessional finance.



Solving Complex
Challenges Together

Vinaka
Thank you