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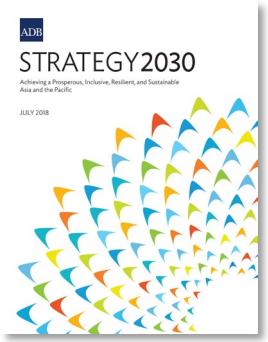
ADB Support: Water Sector from the Agriculture, Food, Nature and Rural Development (AFNR) Sector Cluster

5 October 2026

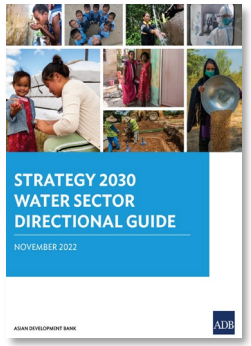
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Solving Complex Challenges Together

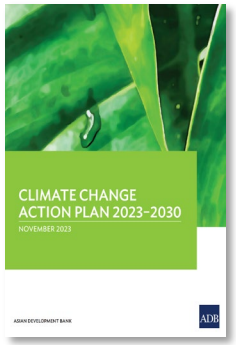
Strategies



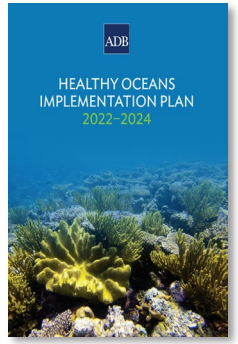
- ✓ Improve climate and disaster resilience
- ✓ Support IWRM to meet competing water needs in an equitable and sustainable manner
- ✓ Ensure the sustainable use of land and water resources



- ✓ Embed a focus on IWRM
- ✓ Foster a holistic approach from source to sea and address rural-urban linkages
- ✓ A river basin perspective is necessary to understand the hydrologic and ecosystem implications of development interventions
- ✓ ADB will take a more integrated and risk-based approach to managing flood risk and addressing droughts, climate change, and other water-related disasters.



- ✓ Synergies are prominent in water, energy, transport, and urban development, as well as across agriculture, food, nature, and rural development. Co-benefits include avoiding biodiversity loss.
- ✓ Conserving biodiversity plays a critical role in the fight against climate change.
- ✓ While oceans, forests, mangroves, and peatlands are natural carbon sinks, biodiversity loss and degraded land and water undermine their capacity to mitigate climate change by absorbing carbon and to enhance adaptation and climate resilience.
- ✓ Agrifood systems contribute almost a third of global GHG emissions. Livestock and rice are major emitters of methane.
- ✓ Nature provides viable solutions for climate resilience through adaptation and mitigation, in particular carbon storage.
- ✓ IWRM and irrigation modernization programs in Karnataka are promoted as good practices for low-carbon and climate-resilient development



- ✓ ADB's Action Plan for Healthy Oceans and Sustainable Blue Economies for Asia and Pacific embodies the linkage across planning scales from river catchment to the sea.



- ✓ ADB is shifting toward an integrated food systems approach linking food, water, climate, nature, and nutrition.
- ✓ Investments will strengthen resilient agrifood systems while restoring natural capital and revitalizing rural economies.
- ✓ ADB will scale innovative financing, private sector engagement, and partnerships to accelerate food systems transformation

Commitment of $100 billion in cumulative climate financing from ADB's own resources for 2019-2030

Southeast Asia: Challenges and AFNR Strategic Programs

Food Security & Rural Livelihoods

Low agricultural productivity, weak value chains, limited access to markets and finance

Initiatives:
- Agrifood value chain development and modernization
- Food logistics and market systems strengthening
- Agricultural productivity enhancement
- Smallholder farmer access to finance and services
- Climate-smart agriculture investments
- Nutrition interventions

Water resilience

More frequent floods, droughts, and water stress

Initiatives:
- Integrated flood resilience and adaptation programs
- River basin planning and management
- Climate-resilient water infrastructure
- Irrigation development and modernization

Blue economy & coastal resilience

Growing climate risks to coastal communities and marine ecosystems

Initiatives:
- Coastal resilience through nature-based solutions
- Marine and coastal ecosystem management
- Sustainable fisheries and aquaculture
- Plastic pollution and circular economy initiatives
- Climate-resilient coastal community investments

Natural capital

Degraded watersheds
Biodiversity loss and ecosystem degradation

Initiatives:
- Biodiversity conservation and restoration
- Sustainable landscape management
- Green, resilient, and inclusive recovery initiatives
- Climate adaptation and ecosystem resilience programs

Pacific: Challenges and AFNR Strategic Programs

Food Security, Nutrition, & Resilient Livelihoods

Food insecurity, nutrition challenges, high dependence on imported food, vulnerable local food systems, and limited market connectivity

Initiatives:
- Food systems transformation
- Strengthening agrifood value chains
- Climate-resilient horticulture and fisheries
- Food security and nutrition
- Access to diverse, affordable, and climate-resilient diets
- Market access and logistics
- Community livelihood enhancements

Coastal, Flood, & Water Resilience

Rising coastal and flood risks, water insecurity, and increasing climate-related disasters affecting communities and infrastructure.

Initiatives:
- Programmatic, adaptive, risk-informed investments
- Coastal and flood resilience
- Climate-resilient infrastructure
- Integrated flood risk management
- Water security investments
- Institutional strengthening and capacity building
- O&M sustainability planning and knowledge sharing

Coastal & Blue Economy Transition

Sea-level rise, coastal hazards, and degradation of marine and coastal ecosystems and blue economy assets

Initiatives:
- Coastal protection and adaptation
- Living shorelines and hybrid solutions
- Ecosystems-based adaptation
- Nature-based solutions
- Healthy oceans and sustainable blue economies
- Sustainable fisheries and blue economy development
- Community-based coastal resilience

Natural Capital & Ecosystem Services

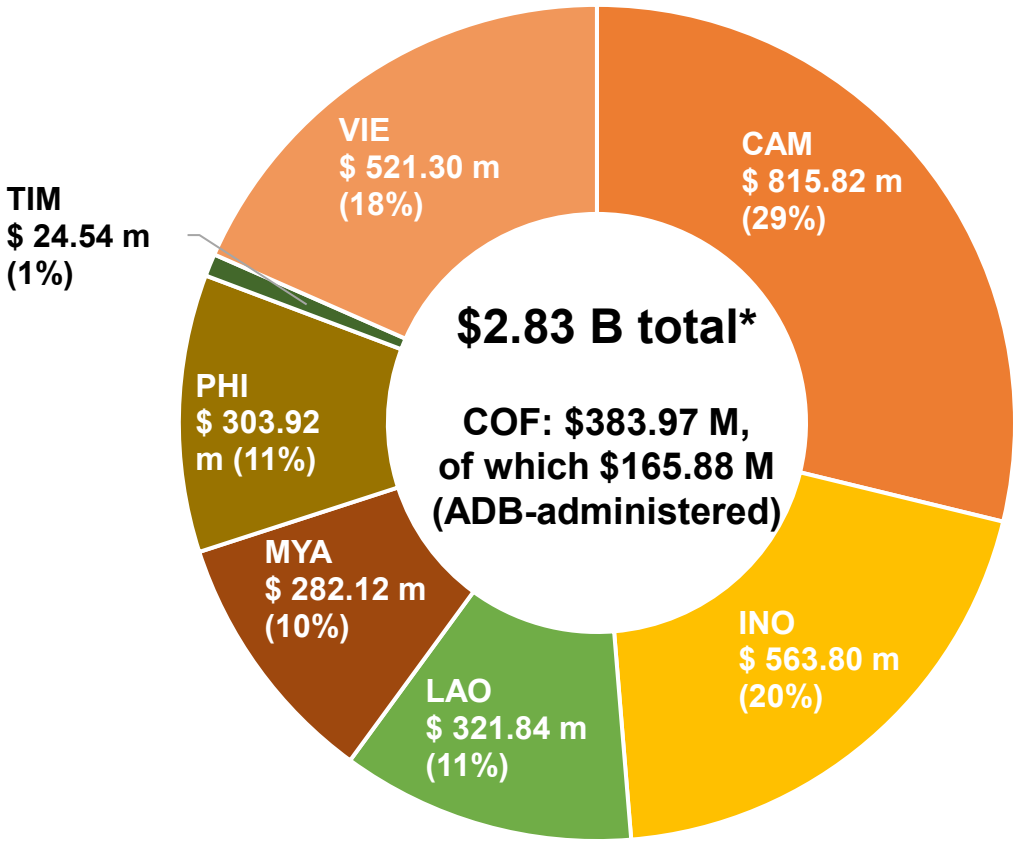
Pressures on oceans, reefs, forests, land, watersheds, and other natural resources that underpin livelihoods, food security and resilience

Initiatives:
- Natural capital investments
- Biodiversity conservation and restoration
- Sustainable fisheries and aquaculture
- Watershed and ecosystem management
- Integrated climate-food-nature solutions
- Nature-based solutions
- Cross-sector collaboration
- Natural capital accounting and innovative financing

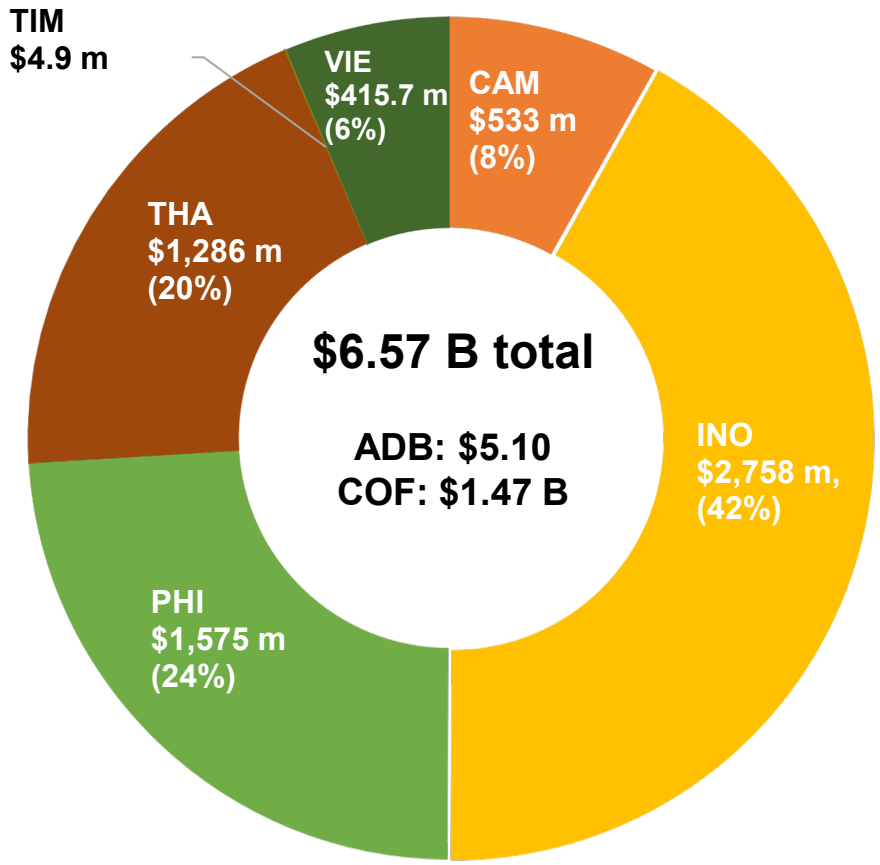
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AFNR in Southeast Asia (as of 13 Sep 2026)

Portfolio



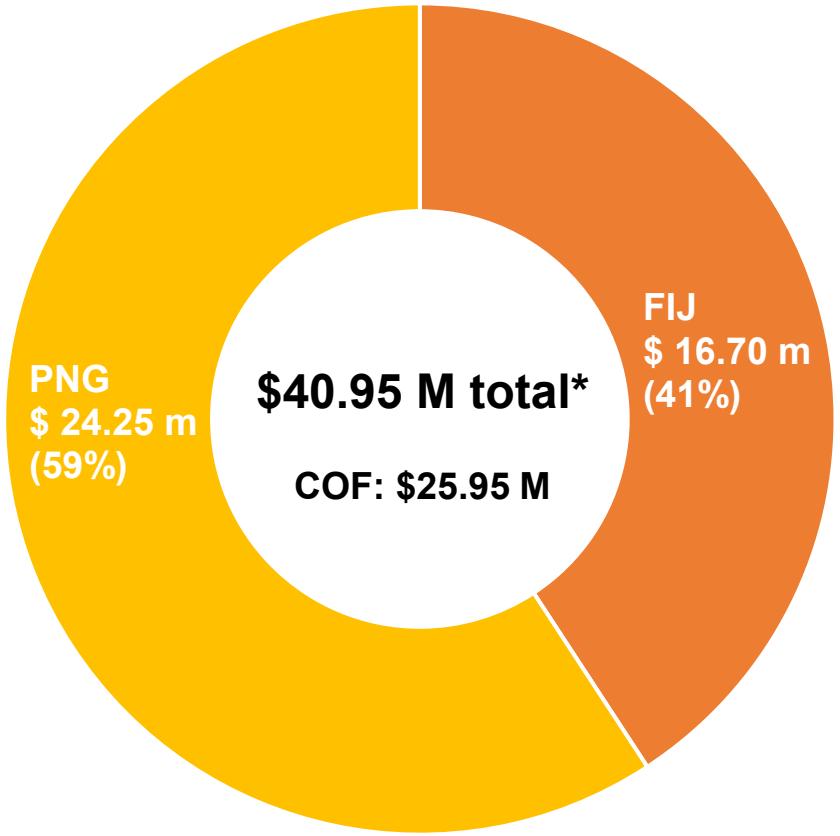
Pipeline (2026-2028)



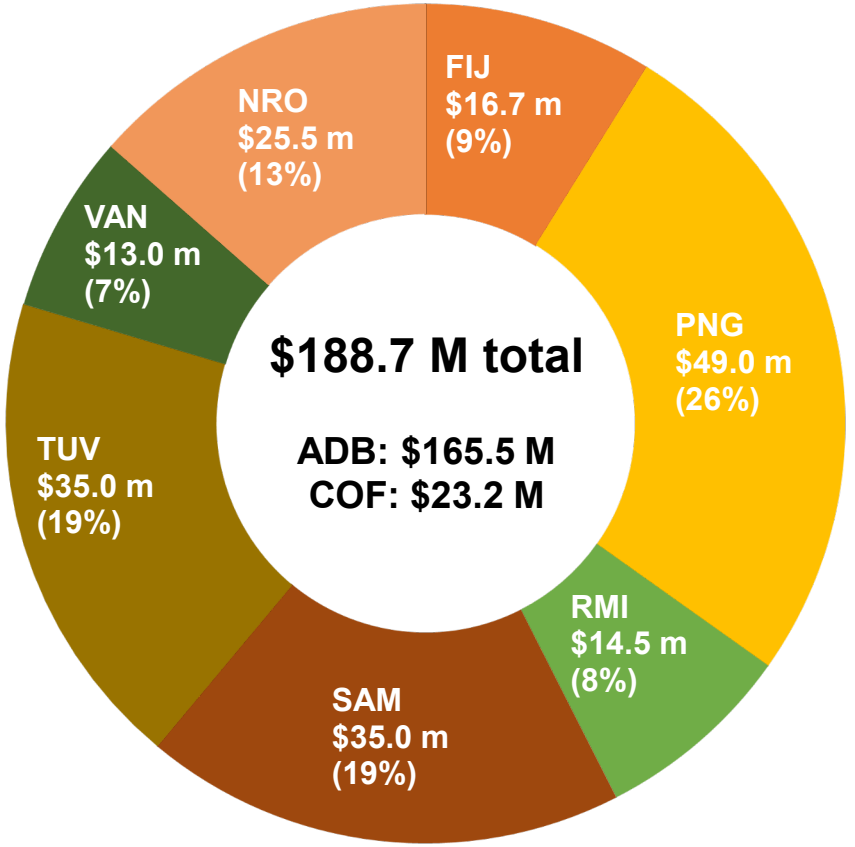
** Includes Timor Leste Coffee and Agroforestry Livelihood Improvement Project - Additional Financing, $4.95 m and Viet Nam Climate Adaptation Through Irrigation Modernization Project, $42.77 m, both delivered in 2026..*

AFNR in Pacific (as of 13 Sep 2026)

Portfolio



Pipeline (2026-2028)



** Includes Fiji Enhancing Climate Resilience of Coastal Communities Sector Project for $16.7 million, committed in April 2026.*

IWRM: Driving Imperatives for ADB's Engagement in the Philippines

- Philippines ranks 1st on World Index Risk for vulnerability and exposure to natural hazards, including flooding, drought, and sea level rise
- Among the most flood-exposed countries globally, with population exposed to flooding projected from 2 million (2000) to 5.8 million (2060).
- Climate change could result in economic losses equivalent to 7.6% of GDP by 2030 and 13.6% of GDP by 2040 without adaptation measures.
- Forest cover remains at only about 23% nationally, and below 10% in several major river basins, contributing to watershed degradation and increased flood risks.
- Existing flood management remains heavily dependent on embankments and dredging and lacks integration.
- Opportunity to move toward integrated water resources management combining infrastructure, watershed restoration, and nature-based solutions (NbS).





Our Water Program in the Philippines: Overview

Strategy 2024-2029

Building towards a Prosperous and Climate-Resilient Future

Adaptive and inclusive **human capital development** through innovative solutions and sustainable social protection programs

Strengthening the country's enabling environment to **boost competitiveness**

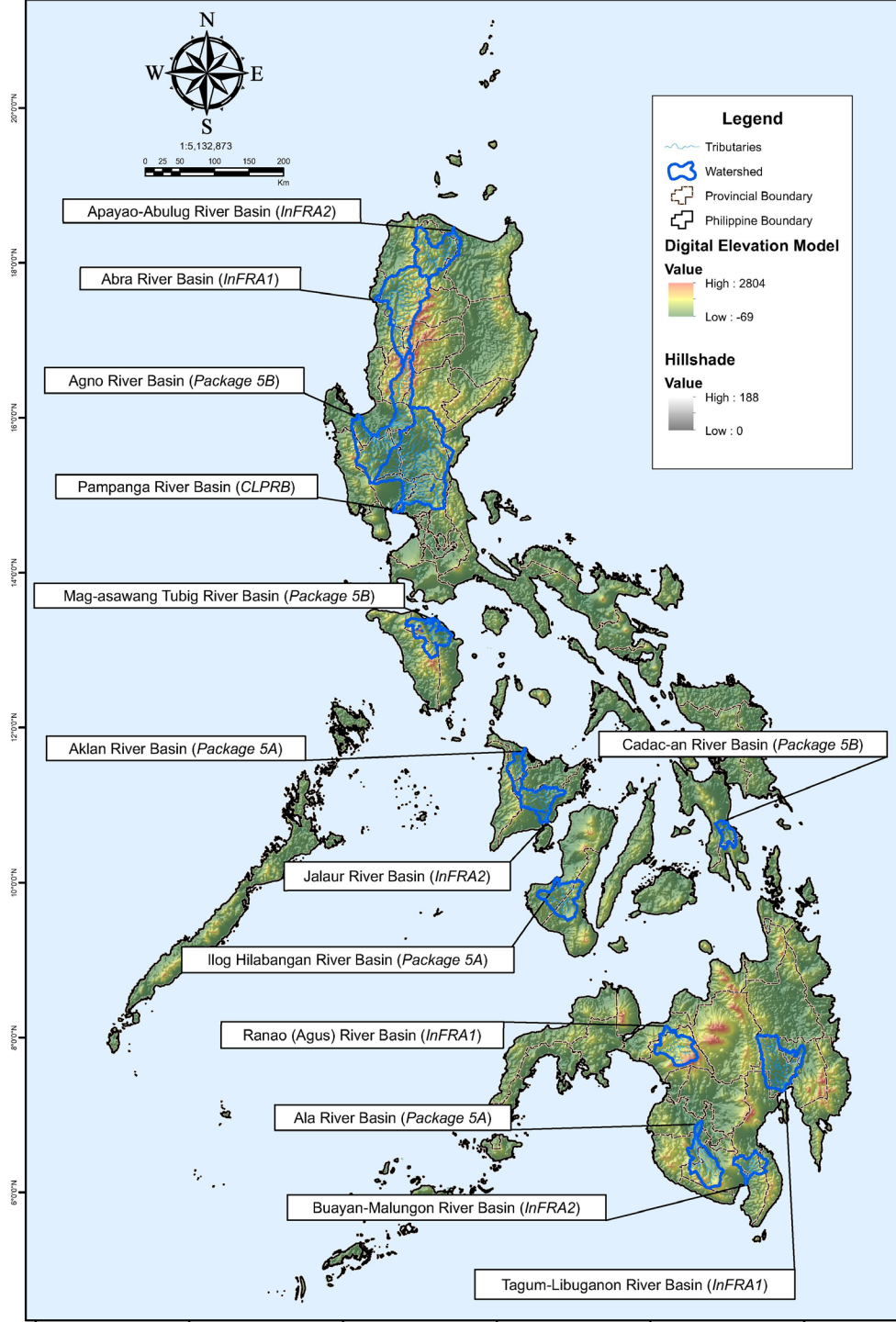
Building sustainable and resilient economies through **nature-based and climate conscious development**

Assistance		
L3886-PHI: Infrastructure Preparation and Innovation Facility – Additional Financing (output 2: flood)	2020 - 2026	DPWH, FCMC
L4424-PHI: Infrastructure Preparation and Innovation Facility – Additional Financing 2 (flood)	2024 - 2028	DPWH, FCMC
TA10229-PHI: Promoting Climate-Smart Infrastructure in the Philippines	2023-2028	DPWH, FCMC
L4345-PHI: Integrated Flood Resilience and Adaptation Project 1 (InFRA1)	2023-2029	DPWH, FCMC
Enhanced Integrated Flood Resilience and Adaptation Project 2 (MFF) (proposed)	2028	DPWH, FCMC
Philippine solar powered irrigation project	2028	DA

Strengthening the Country's Resilience

ADB is supporting a **long-term river basin resilience** program covering **13 priority river basins**

- Financing for planning and project preparation (master plans, feasibility studies, and DEDs)
- Ongoing implementation under InFRA 1 in 3 key river basins
- Finalizing urgent investment proposals for other priority river basins.
- ADB support anchored under DPWH's flood control program, while promoting increased convergence with DENR, DILG, and other concerned agencies.



Promoting an Integrated Approach

Shift from flood control to **comprehensive and integrated water resource management**

River basin approach from upstream to downstream

Introduce NBS measures, including **water storage**, **wetlands**, and **watershed management**.

Basin-wide coordination across agencies and stakeholders

This approach is followed by the Enhanced Integrated Flood Resilience and Adaptation Project 2 (MFF), proposed project (2028-2029)

Irrigation Program: Rationale

Inadequate irrigation = low productivity of the agriculture sector (rice and corn)

- Only **2.11 million ha**, or 67.50%, of the 3.13 million ha considered irrigable are irrigated
- **Dysfunctional and aging infrastructure**

Deficient value chain infrastructure and services

The lack of storing and processing facilities at farm gate results in high post-harvest losses:

- **9% to 37% post-harvest loss** for cereals
- **27% to 42%** for fruits and vegetables
- **15%** for rice

Farmer cooperative associations' (FCA) capacity varies

- FCAs lack **economies of scale** and often suffer from **inadequate capital** and **limited market access**
- Women are underrepresented
- Lending to agriculture presently accounts for only 2.8% of the total lending portfolio of Philippine banks



Philippine Solar Powered Irrigation Project

Executing Agency	Financing	Implementation
Department of Agriculture	$650 million	3 tranches, starting in 2028

- help expand irrigated agriculture coverage
- promote climate-resilient and low-carbon irrigated agriculture: solar-powered pump, pipe irrigation systems, groundwater monitoring
- support farm clustering, introduce mechanization, and build post-harvest facilities
- strengthen farmers' capacity in adopting modern agriculture practices and efficient managerial skills



Southeast Asia and the Pacific: Business Opportunities

Opportunities	Food Systems & Rural Development	Water Security & Resilient River Bains	Coastal Resilience & Blue Economy	Natural Capital & Ecosystem Resilience
Consulting Services	Value chain analysis, agribusiness planning, market assessments, financial intermediation, extension services	River basin planning, hydrologic and hydraulic modeling, FS/DED, construction supervision	Coastal modeling and engineering, fisheries management, marine spatial planning, environmental assessments, port design	Natural capital accounting, biodiversity surveys, forestry planning, environmental management, ecological restoration design
Works	Irrigation, farm-to-market roads, post harvest facilities, warehouses, livestock facilities	Irrigation canals, pumping stations, flood control structures, water storage facilities, conveyance systems	Seawalls, embankments, coastal protection works, fish landing sites, aquaculture facilities, port facilities	Watershed rehabilitation, reforestation, mangrove restoration, wetland restoration, ecotourism facilities
Goods	Farm machineries, smart agriculture systems, soil testing equipment, agricultural laboratory equipment	Hydromet and flood forecasting systems, SCADA and telemetry systems, water information systems	Ocean observation systems, marine monitoring equipment, GIS and remote sensing platforms	Drones, LiDAR surveys, biodiversity monitoring systems, geospatial platforms
Emerging Areas	Crop insurance, digital agriculture, agri-finance, agribusiness investment, PPP structuring	Earth observation & remote sensing, NbS, digital decision-support systems, disaster risk financing	Ecosystem-based adaptation;, ocean monitoring, hybrid green-gray infrastructure, plastic circularity	Carbon finance, ecosystem services, biodiversity monitoring, NbS

Note: A complete list of the procurement packages for ongoing and pipeline projects is available through QR code at the end of the AFNR presentation.

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Southeast Asia and the Pacific: Business Opportunities

Complete list of the AFNR procurement packages for ongoing and pipeline projects



Thank you!

ADB

Solving Complex
Challenges Together