



U.S. DEPARTMENT
OF THE INTERIOR
INTERNATIONAL TECHNICAL
ASSISTANCE PROGRAM




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REGIONAL FLYWAY INITIATIVE TRAINING SERIES: From Wetland Ecosystem Services to Nature-based Solutions

ADB HQ on 27–30 June 2023





East Asian-Australasian Flyway - Regional Flyway Initiative

Quick Overview

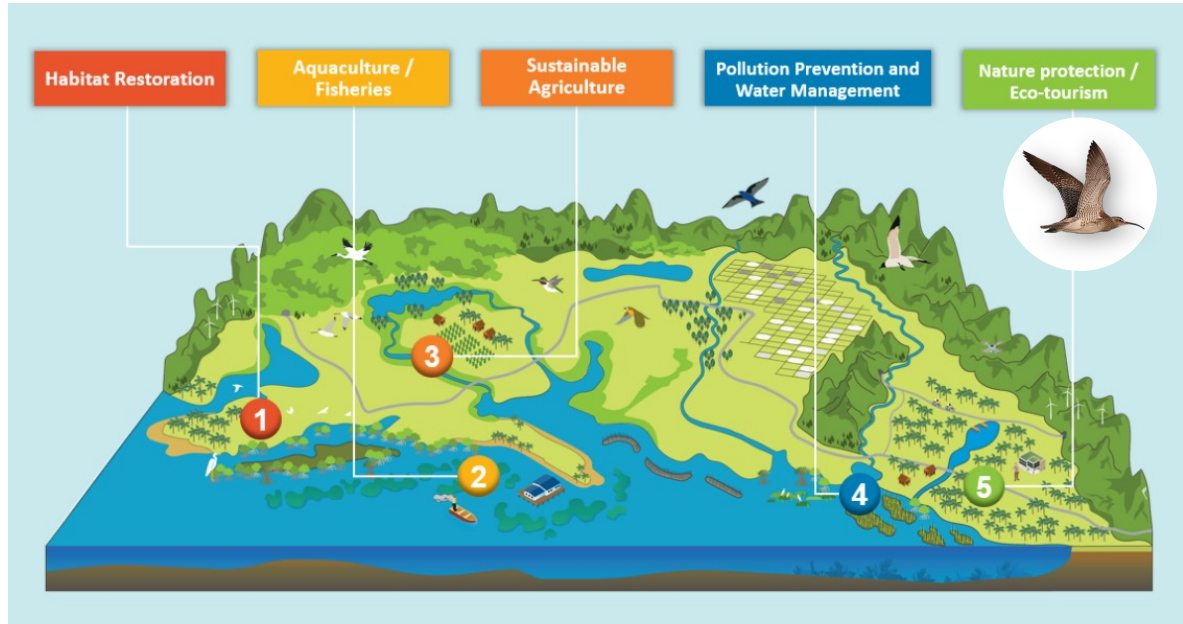
Duncan Lang
Asian Development Bank

June 2023

East Asian-Australasian Flyway – Regional Flyway Initiative

A Regional Initiative acting at-scale to mobilize **\$3 billion** of investment for wetland protection and management to have flyway level impact

- **Delivery Timeframe** - Comprising of 2 phases: i) project **development phase** using grant finance 2021 – 2024; and ii) **investment phase** 2023 onwards (10+yrs).
- **RFI Goal** - Will deliver 50+ flyway sites under Protection / Sustainable Management providing a **coherent network** of priority sites with **favorable conservation status** with **species numbers maintained** or **enhanced** on the EAAF.
- **Regional** - A **Regional Initiative** covering 4 ADB Regions acting at-scale to have **flyway level impact**.



- **ADB Focus on Co-benefits** - It will promote **healthy wetlands** (strengthen natural capital), deliver **ecosystem service co-benefits** and reinforce green infrastructure to benefit nature and people and scaling up measures for **climate adaptation** and **resilience**.
- **Focus Countries** - **Mongolia, Viet Nam, Cambodia, Philippines, Thailand, People's Republic of China, Indonesia and Malaysia Bangladesh.** New countries may include Papua New Guinea and Lao PDR.
- **International Agreements** - Contributes towards key agreements including **EAAFP Strategic Plan, Paris Agreement, Ramsar, CMS, CBD Post-2020 biodiversity framework** and **UNESCO World Heritage** obligations

RFI Development Phase – Grant Details

- **Status and Schedule** – ADB Knowledge Sharing Technical Assistance (TA) Grant - 55056-001 ‘Scaling Up the East Asian-Australasian Flyway Initiative’:
 - Approved on 14 July 2021. Delivery period from July 2021 – December 2024
 - Launch events at CBD COP15 and UNFCCC COP26 both in 2021
- **Financing** –
 - ADB grant financing of \$1.5 million to facilitate development phase
 - USG in-kind contribution \$100,000
- **Development Phase Delivery** - TA to be administered by ADB and implemented by consortium led by BirdLife International with an international team including Wetlands International, Paulson Institute, NUS, James Cook University, University of Southampton amongst others.

Grant Delivery Schedule to Dec 2024:

December 2021 -
Inception
Workshop with
DMCs

May 2022 - Site
Selection
Framework
Endorsed

May 2022 – Mar
2023 DMC
engagement on
site selection

June 2023 -
Consensus on 50
priority sites

Nov 2022 – Dec
2024 Develop
Project Concepts

RFI Development Phase – Deliverables

- **Development Phase Outcomes –**

- **Output 1:**

- Develop a Stakeholder Engagement Strategy and undertake a needs assessment and subsequent capacity building program in targeted countries / locations for delivery of a scaled-up initiative including PRC.

- **Output 2:**

- Develop Site Selection Framework to i) identify priority sites within EAAF based on existing known internationally important sites ii) refine this list following further analysis and consultation; iii) confirm final list of 50 priority sites and then design project concepts detailing biodiversity values, threats to the site to be addressed, co-benefits to be delivered, investment budget required.

- **Output 3:**

- Develop a Sustainable Financing Mechanism to deliver long-term donor financing for the flyway and to explore self-financing mechanisms.

RFI Investment Phase - Overview

- **Project Investment** – Total estimated investment to secure key sites is **\$3 billion (blend of loans and grants)**
 - » **Timeframe** – Investment Phase from 2023 for 10+ years
 - » **Indicative Site level investment** – Approx. \$10-60 million per site,
 - » **Investment Funding Sources** – Funding partnerships between sovereign governments with support from bilateral, multi-lateral and civil society
- **Capacity Building** – To ensure that the investments are sustainable through stronger institutions, policies, networks, partnerships. This support would continue from development into implementation.
- **Sustainable Financing Mechanism Implementation**
 - » Comprise of grant money from multiple sources. \$15-20 million per 5-year cycle
 - » Mechanism will bridge the gap where other sources of funding are not available
 - » Mechanism will look to explore options for long-term self financing
 - » Support and compliment key activities by CSOs where government funding is not available

Output 1: Capacity Development

Activities Completed

- **Stakeholder Engagement Strategy**
 - Complete, now being used to inform other activities through needs assessment and capacity building.
- **Needs Assessment**
 - Questionnaire complete and dissemination of questionnaire now underway with EAAFP focals for all participating countries – to be complete by end of Q3 2023
- **Capacity Building Program**
 - Initial areas identified for capacity building through country level consultations.
 - Capacity Building Regional Workshop conducted at MOP11 in March 2023
 - Philippines Workshop to be conducted in June 2023
 - Program under development for 2023/24 and will be based on findings from needs assessment questionnaire.

Output 1: Capacity Development - Activities

- Profile Raising



- Knowledge Dissemination



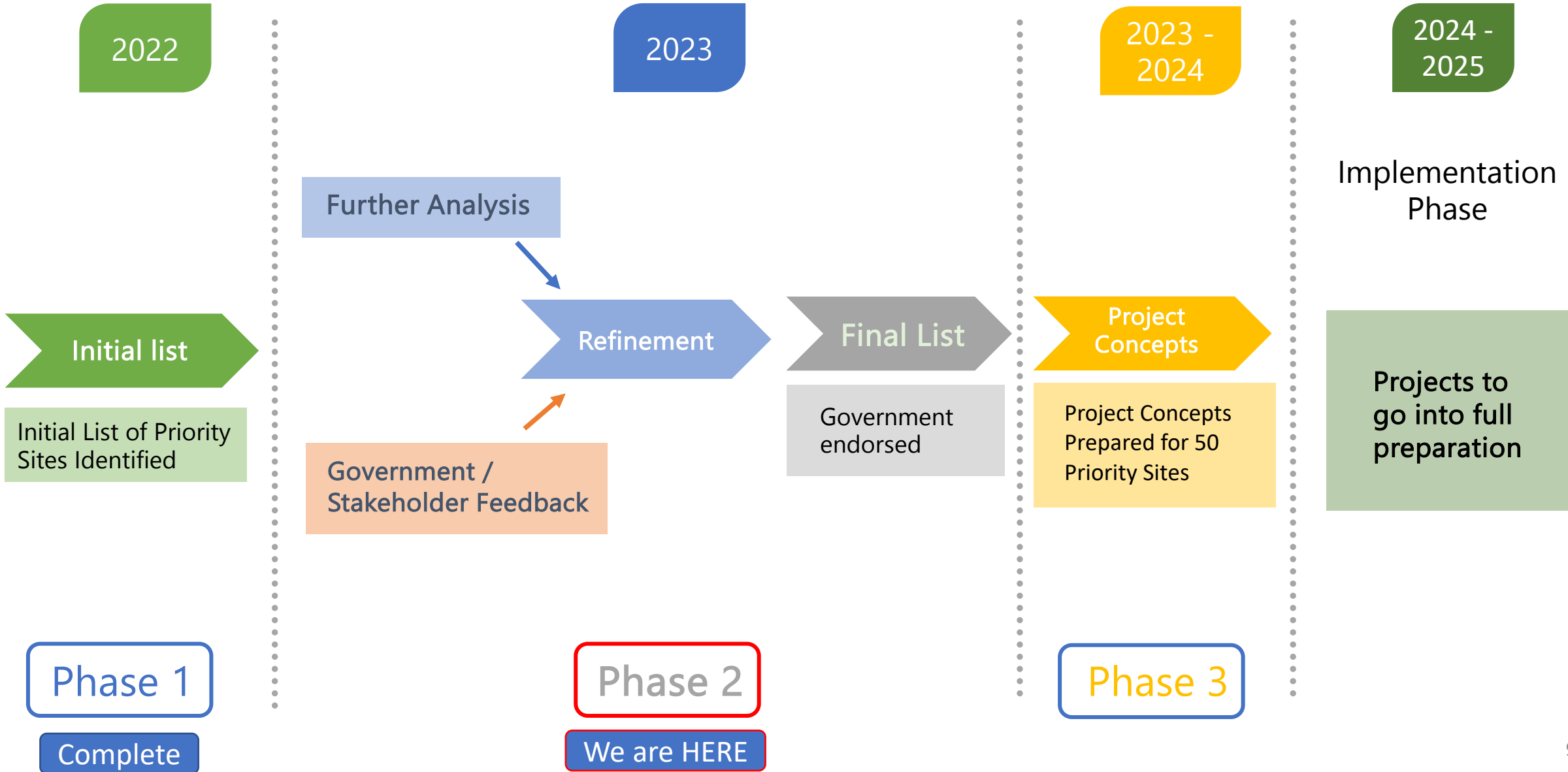
- Capacity Building



- Building Support



Output 2: Site Selection Process – Phased Approach



Phase 1 - The Priority Sites Selection Process – initial findings

Phase 1

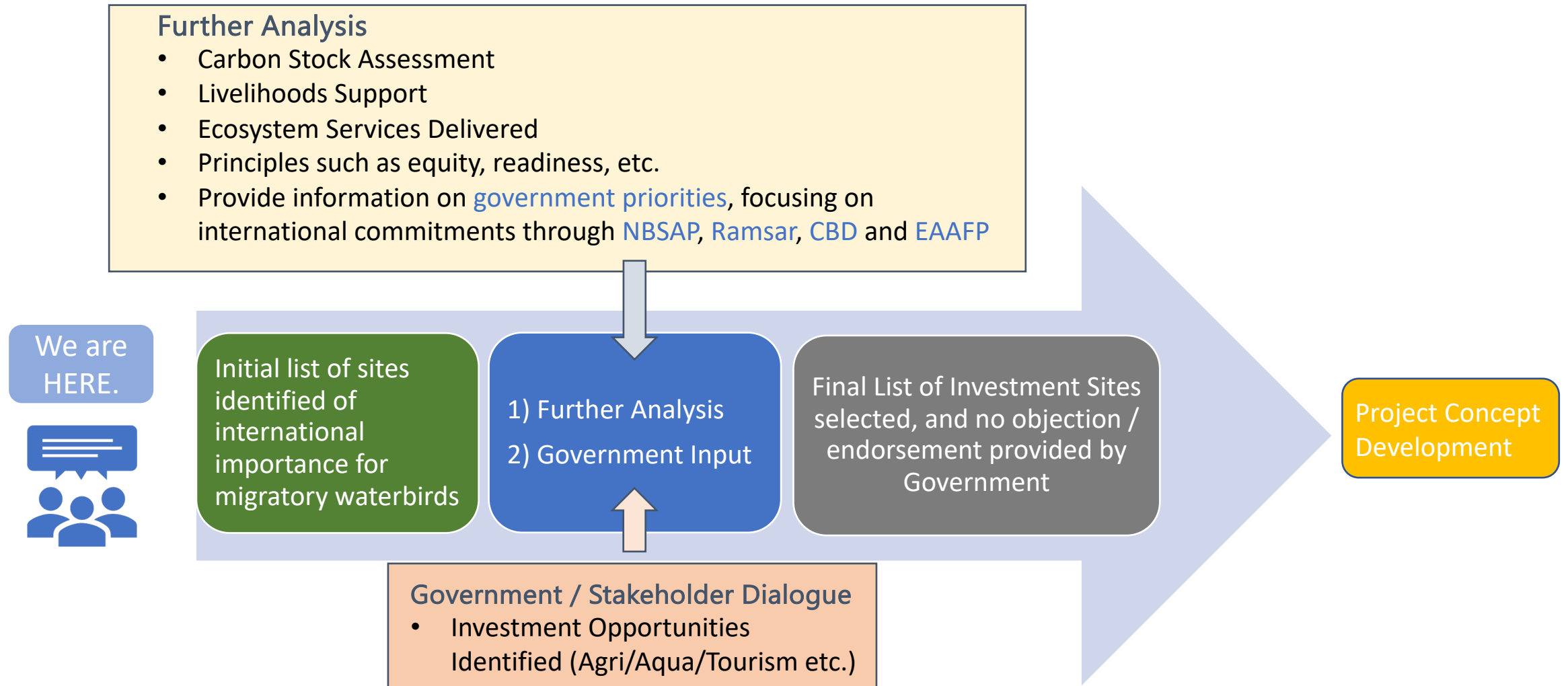
Country	No. of Priority Sites (Totals)	No. of Coastal	No. of Inland
Cambodia	9	1	8
Bangladesh	8	5	3
Indonesia	17	16	1
Thailand	12	9	3
Philippines	12	9	3
Malaysia	6	6	0
Vietnam	9	8	1
Lao PDR	3	0	3
PRC	60	37	23
Mongolia	11	0	11
TOTAL	147	91	56

[Development Asia Site Selection Data Room - Now Live](#)

*Indicative only – Stakeholder Engagement and Ecosystem Services Assessment to be completed before site confirmation.



Phase 2: Site Selection



Phase 2: Project Concepts – what they deliver



ENABLING ENVIRONMENT



Investment conceptualization /design (drawing from meaningful stakeholder engagement, technical expertise and analysis)



NON-COMMITAL but ANCHORED ON SHARED GOALS



Recommendations only but founded on shared objectives



RAPID APPRAISAL

Identify what needs to be done and initial cost estimates



Opens door to more opportunities for finance



MULTI-LEVEL

RFI will deliver multiple-level benefits (e.g., climate, livelihood and nature)



Allowing exploration of opportunities with Non-traditional government partners

What RFI projects may look like – 5 indicative models

Ecosystem Services and Co-Benefits in Wetlands

Personal and cultural values

- Cultural and spiritual connection
- Recreation
- Community building
- Aesthetic values
- Health and wellness

Socio-economic development

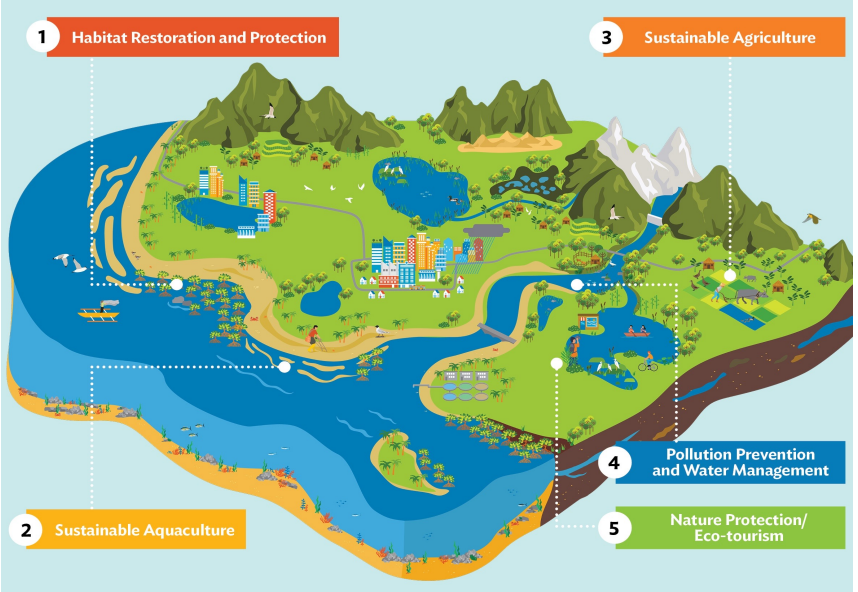
- Food security
- Raw materials
- Medicinal security
- Water security
- Livelihoods

Climate adaptation and resilience

- Air quality regulation
- Climate regulation
- Water regulation
- Erosion regulation
- Water purification
- Moderation of extreme events

Ecosystem resilience

- Species habitat
- Nutrient cycling
- Photosynthesis
- Soil formation/Soil integrity
- Disease and pest regulation
- Pollination



RFI INVESTMENT CONCEPT 1 HABITAT RESTORATION AND PROTECTION

Restoring and protecting mangroves and other wetland habitats has clear economic and ecological benefits.

RFI Investments in restoring and protecting habitats (such as mangroves and mudflats) can lead to compounding co-benefits for local communities, nature and climate along the East Asia- Australasian Flyway.

Interventions include habitat restoration, rehabilitation, disaster risk reduction, reforestation, regeneration and plantation. Mangrove restoration based on best practices can help ensure food security, ecotourism and other income generating opportunities. As a cost-effective intervention on ecosystems management for climate adaptation and mitigation, it can deliver nature-based coastal protection.

WHY MANGROVE RESTORATION MATTERS

- \$100,000/year** estimated economic loss to fisheries due to removal of 1,200 ha of mangroves (Thailand)
- \$60.2 million to \$91.6 million** value of global climate regulation from carbon storage in wetlands (Myanmar and Viet Nam)
- 2.4 to 8.4 years** time to recover costs of restoring fisheries through mangrove restoration; after which benefits are generated in perpetuity (discount rate not factored in; Thailand)

BENEFITS OF MANGROVE AND OTHER WETLAND HABITATS

- \$1 billion/year** of averted property damages through floodwater protection annually (Philippines)
- \$484-\$595 per hectare** of products provided to communities (Thailand)*
- \$53 million/year** diverse value of the Sundarbans mangroves and value of tourism and cultural services (Bangladesh)

*Barbier (2007), Net present value

RFI INVESTMENT CONCEPT 2 SUSTAINABLE AQUACULTURE

Sustainable aquaculture and fisheries support food, nutrition and water security for wetland communities.

Intensive aquaculture is a key driver of wetland loss, resulting in habitat degradation, species loss, the spread of invasive species, pollution, and increases to nutrients and chemical loads.

WHY SUSTAINABLE AQUACULTURE AND FISHERIES MATTER

- 43% and 50%** increase in survival rate for tiger shrimp and milkfish due to aquaculture practices (Indonesia)
- 80% of protein intake in the Lower Mekong region** is derived from the world's most productive inland fisheries supported by Lower Mekong Delta wetlands

RFI Investments in aquaculture can drive communities to more sustainable aquaculture and fisheries practices, delivering long-term sustainable food security and improving nutrition. They could also restore natural waterways and ecosystems and create economic opportunities through the development of sustainable premium products.

BENEFITS OF WETLAND FISHERIES

- \$708 - 987/ha** net present value of mangroves as breeding habitat which supports off-shore artisanal fisheries (Thailand)
- \$1,000-\$2,750 per ha/year** economic value of clam harvesting (Viet Nam)
- 12.4%** wetland-like resources contribution to household income (Nepal)
- 2x increase income** for local shrimp farmers after shifting to more sustainable practices (Indonesia)

RFI INVESTMENT CONCEPT 3 SUSTAINABLE AGRICULTURE

Sustainable agriculture can strengthen long-term food and livelihood security while delivering net gains for biodiversity.

WHY SUSTAINABLE AGRICULTURE MATTERS

- 4000% increase in farmers' earnings** after restoring wetlands and introducing sustainable agriculture practices
- 80% of households report benefits** from wetland products and services to their food security
- 52 million hectares** of arable land will be added to the 1,534 million hectares already being exploited for agriculture

Data based on People's Republic of China (2011)

BENEFITS OF WETLANDS TO AGRICULTURE

- \$5.86 billion/year** of marketed products or commodities from agriculture in wetlands
- \$6.32 million/ha per year** economic losses if paddy fields are converted to non-agricultural use
- \$30.73 billion/year** contribution of environmental services to total economic value of the wetland area in West Java Province (Indonesia)

Data based on West Java, Indonesia (2021)

RFI INVESTMENT CONCEPT 4 POLLUTION PREVENTION AND WATER MANAGEMENT

Preventing pollution and sound water governance offers massive benefits

WHY POLLUTION PREVENTION AND WATER MANAGEMENT MATTERS

- \$1.4 million/year saved** by 220 people using constructed wetlands for wastewater treatment
- 48% reduction** of biological oxygen demand in wastewater treated in constructed wetlands (Australia)
- 85%-90% organic pollutants reduced** in wastewater treatment in constructed wetlands

RFI Investments will aim to realize the full potential wetlands have particularly in urban environments for delivering effective pollution and water management using nature-based solutions. This will ensure local wetland communities are less susceptible to flooding and pollution events and will provide financing schemes and will provide financing schemes and will provide financing schemes to ensure wetlands are managed sustainably, over the long-term.

BENEFITS OF WETLANDS TO POLLUTION PREVENTION

- \$4.2 billion** avoided costs of sediment filtration and phosphorus removal services
- \$2.9 billion/year** avoided cost of constructing artificial wetlands to replace natural wetlands' existing phosphorus filtration
- \$13 billion** cost of implementing agricultural Best Management Practices to remove an equivalent phosphorus load annually

Data based on Canada (2021)

RFI INVESTMENT CONCEPT 5 NATURE PROTECTION AND ECO-TOURISM

Protecting natural wetlands creates massive ecotourism benefits and opportunities

WHY NATURE PROTECTION AND ECO-TOURISM MATTERS

- 60% per year** potential increase in annual net revenues from reef and mangrove fisheries and tourism expenditures if reef quality and wetland stewardship is improved (Philippines)
- Over €5 billion** cost of indirect damage to fishers, tourism industry, local people's livelihoods, and lost natural values due to an oil spill (France and Spain)
- 10% to 12% growth/year** in ecotourism globally signaling the need for more sustainable practices
- 20% of all birds** from an estimated 9,000 species depend on wetlands (global data)

RFI Investments to protect nature in wetlands and enhance ecotourism for birdwatching and other activities. These interventions can drive sustainable development and can be strong tools of sustainable development and combine conservation, tourism and education functions, delivering direct jobs, economic opportunities and long-term livelihood benefits.

BENEFITS OF WETLANDS TO ECOTOURISM

- 60.1%** of wetland ecosystem services support ecotourism, (28.4%) support flood regulation, and (6.7%) local biodiversity (Colombia)
- \$95,333** recreational benefits enjoyed by visitors in a wetland ecotourism site (India)*
- \$1.35 billion/year** contribution of reef-based ecotourism to the national economy (Philippines)
- \$55/visitor** willingness to pay to enjoy a tidal ecotourism wetlands site, Anmyeondo Island (South Korea)

*Verkaat-Jahrom & Zanava Begam (2016), value for 2015 only

Source: ADB adapted from TEEB Europe

Output 3: Sustainable Financing Mechanism

Activities Completed

- **Consultation**
 - Detailed consultation regarding the financing mechanism has been undertaken based on more of a dozen interviews with civil society, philanthropic organizations, international finance institutes and multilateral donors.
- **Desk Study**
 - Literature review on conservation finance was undertaken and lessons-learned/challenges and opportunities were compiled as key findings.
- **Options Appraisal**
 - Three possible mechanism designs are in the final stages of preparation and will be ready to issue for consultation with stakeholders by the end of Q3 2023.
- **Donor Identification**
 - Significant interest from donor organizations in various capacities. GEF/GCF particularly have potential.

RFI Key Activities and Next Steps in 2023-2024

- **Existing Project Opportunities**
 - Support project teams with existing pipeline projects.
 - Continue to support other opportunities, particularly on GEF projects.
- **Project Concept Development**
 - Focus on getting endorsement for final list of 50 sites and then developing the early project concepts by the end of 2024. Concepts are critical for taking the RFI forward.
- **Stakeholder Engagement**
 - Undertake 3 key workshops in 2023: Philippines (June); Cambodia and Thailand (August/September). These will allow further detailed input for concept development.
- **Donor / Grant Financing**
 - Continue to explore opportunities for donor / grant financing with key organizations.



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