



Decision 17

The EAAFP Initiative on Tidal Flats and Ecologically-associated Working Coastal Habitats ("EAAFP Tidal Flats Initiative – TFI")

*Submitted by BirdLife International, Eco Foundation Global, Hanns Seidel Foundation, Pukorokoro
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Summary

This document proposes a new EAAFP Initiative focused on enhancing protection, sustainable management, and restoration of the EAAF's tidal flats and ecologically-associated working coastal habitats such as salt pans, aquaculture, rice fields, ash ponds and sewage ponds that are used by migratory waterbirds. This Initiative would, in particular, foster connectivity, including through the EAAFP Flyway Site Network expanded to include more tidal flats, and mobilizing capacity, engagement, and resources.

Background

1. Well-functioning **tidal flats (mud and sand flats)** are critical to the survival of millions of migratory **waterbirds** in the East Asian – Australasian Flyway (EAAF) that depend on them to complete their migratory journeys, especially during the non-breeding season, particularly as staging sites, but also for breeding of some species.
2. Tidal flats are especially critical to migratory waterbirds for feeding to build energy resources for their migratory journeys, and for providing roosting sites during high tide, but **ecologically-associated "working coastal habitats"** e.g. saltpans, aquaculture, rice fields, ash-settling ponds of thermal power plants and sewage ponds, are also important in the EAAF as feeding, roosting (especially on the highest high tides) and nesting areas.

3. **The area of tidal flats in the EAAF has halved in the last fifty years** and continues to decline, especially due to continued development, including land claim, and sea level rise. Also, the inappropriate planting of mangroves, and at smaller scales, also salt marsh and sea grass, are posing a threat.
4. **Tidal flats are further degraded** by threats such as sediment loss e.g., due to damming of rivers, encroachment by invasive alien species, unsustainable harvest and pollution.
5. **Similar threats affect ecologically-associated working coastal habitats**, together with abandonment which can render them unsuitable for migratory waterbirds.
6. The continued decline of tidal flats and ecologically-associated working coastal habitats puts at risk not only millions of migratory waterbirds, but also the provisioning of **vital ecosystem services** including carbon sequestration and storage, adaptation to sea level rise and climate change impacts, as well as the wellbeing of coastal communities that depend on them, including for livelihoods.
7. Our knowledge of the role, importance and functioning of tidal flats and ecologically-associated working coastal habitats for migratory waterbirds in the EAAF has increased considerably in recent years, but these habitats remain **under-appreciated and under-represented** in policy and conservation frameworks.
8. The **proposed Initiative** will connect Partners, experts, and site managers to enhance effective action to improve protection, sustainable management and restoration of tidal flats, as well as ecologically-associated working coastal habitats along the flyway, including through collation and dissemination of key evidence and expertise on the importance of, threats to, nature-based solutions and prioritised actions for these ecosystems, promoting and mobilising support for them.
9. Further detail on the justification for urgent action by the EAAFP is included in Appendix 1.

Decision:

- That Partners approve the proposed establishment of the EAAFP Tidal Flats Initiative and support its development.

Annex 1

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The EAAFP Initiative on Tidal Flats and Ecologically-associated Working Coastal Habitats ("EAAFP Tidal Flats Initiative – TFI")

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Aware that the East Asian – Australasian Flyway Partnership (EAAFP) provides an informal and voluntary international framework for the conservation of migratory waterbirds in the East Asian – Australasian Flyway (EAAF) and aims to enhance the conservation status of all migratory waterbird groups covered by the Partnership with the goal that “Migratory waterbirds and their habitats in the East Asian – Australasian Flyway are recognised and conserved for the benefit of people and biodiversity”;

Noting that inter tidal (mud and sand) flats and ecologically-associated working coastal habitats, e.g. saltpans, aquaculture, rice fields, ash ponds and sewage ponds are especially critical habitats in the EAAF as they provide feeding, roosting, and nesting areas for waterbirds during their annual migration cycles, including at times when they need to build energy resources to enable their migratory journeys;

Acknowledging that the area of tidal flats in the EAAF has halved in the last fifty years and continues to decline, due, for example, to development, including land claim, sea level rise and coastal erosion;

Further acknowledging that inappropriately implemented interventions, like the planting of mangroves, and at smaller scales salt marsh and sea grass, are also a cause of the loss of open unvegetated tidal flats;

Recalling the Convention on Wetlands Resolution XIII.20: Promoting the conservation and wise use of intertidal wetlands and ecologically-associated habitats¹;

Recalling, that, in accordance with Paragraph 3 and Paragraph 6(1) of the EAAFP Partnership document, Partners are encouraged to support the development of an East Asian – Australasian Flyway Waterbird Site Network (Flyway Site Network) to ensure a chain of internationally important sites are managed to support the populations of migratory waterbirds of the flyway;

Recognising that a significant proportion of Flyway Network Sites and potential network sites are on intertidal mud and sand flats that are critical to survival of millions of migratory waterbirds;

¹ https://www.ramsar.org/sites/default/files/documents/library/xiii.20_intertidal_wetlands_e.pdf

Further recognising, that in accordance with Goal A of the Kunming-Montreal Global Biodiversity Framework, especially targets 1, 2 and 3, at least 30 per cent of areas of degraded ecosystems, including coasts should, by 2030, be under effective restoration, to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity. And further that these areas should be effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the oceans;

Recognising that the EAAFP has established a series of Task Forces and Working Groups which include a mandate, implicitly or explicitly, to deliver conservation of tidal flats and ecologically-associated working coastal habitats;

Further aware that guidance to support management and restoration of tidal flats is available, including as the first module of the World Coastal Forum's World Coastal Ecosystem Conservation Toolkit prepared by Wetlands International and the Conservation Evidence Group at Cambridge University², and that strengthening capacity at the local level for management of restoration of tidal flats and sharing of good practices is urgently required across the flyway; and

Further aware of the 2023 IUCN Situation Analysis on Ecosystems of the Yellow Sea with Particular Reference to Intertidal and Associated Coastal Habitats;

*The 12th Meeting of Partners
of the East Asian – Australasian Flyway Partnership*

1. *Agrees* to establish an Initiative on tidal flats and ecologically-associated working coastal habitats (EAAFP Tidal Flats Initiative, TFI);
2. *Invites* all Partners and other donors to participate and support the work of this Initiative;
3. *Invites* Partners in the TFI to select a coordinator for the initiative; and
4. *Invites* the TFI to develop a Terms of Reference (based on Appendix 2) and work plan as per the MOP decision xx and to report on its work at the next Meeting of Partners.

² https://www.worldcoastalforum.org/WCF_Knowledge_Products

Appendix 1

Information Paper on Intertidal Flats in the East Asian – Australasian Flyway

This paper is to inform EAAFP MOP12 of the importance of tidal mud and sand flats, particularly for migratory waterbird conservation. It aims to support development of an international EAAFP Initiative to promote conservation and restoration of the remaining tidal flats in the EAAF.

Background

1. What are tidal flats and ecologically-associated working coastal habitats?

- Tidal flats are areas of intertidal mud or sand accumulation on gently sloping coastlines with sediment inflows, at the interface between land and ocean.
- Most tidal flat sediments originate from both riverine and marine sources.
- On global coastlines from 60°N to 60°S, at least 127,921 km² of tidal flats exist, with nearly 70% located in Asia, North America, and South America (Murray et al., 2019)
- Tidal flats are among the most dynamic and biologically productive coastal ecosystems on earth; being shallow (so warm and light), saline to brackish (ranging from purely marine, to a mix of freshwater and seawater) and nutrient rich from the sediments washed downstream or arriving in other ways. This can result in huge densities of shellfish, crustaceans, worms, fish etc., and also microbial life (e.g. biofilms) supporting large populations of a diversity of shorebirds and other waterbirds, including those that depend on this food to fuel their long migratory flights.
- Integral to the use of tidal flats by migratory waterbirds, is their use of ecologically-associated coastal habitats during part of their daily or monthly cycle. This includes natural wetlands systems like saltmarshes and salt-plains and also wetlands used by shell fisheries and for harvesting of other products such as seaweed, cosmetic mud etc., including tidal flats themselves, and also areas such as saltpans, ash-settling ponds of thermal power plants and aquaculture above the sea walls which are used as vital high tide roosts when the tidal feeding and roosting grounds of the birds are covered by water.

2. Importance of tidal flats

- Tidal flats and ecologically-associated working coastal habitats **are the most important habitat for migratory coastal waterbirds** which are among the most threatened groups of migratory birds in the world.
- The 2025 Global Wetland Outlook validates that apart from kelp forests and salt marsh, tidal flats are the **rarest category of wetland**.
- Unvegetated tidal flats are the **most widely distributed coastal ecosystems** globally, generally providing an interface between vegetated coastal wetlands and the marine environment.
- Tidal flats are the **most connected ecosystem** on Earth, providing the interface between land and sea, including through other more vegetated coastal ecosystems e.g. between mangroves and the sea, and between sea grass meadows and the land, as well between tidal flats spanning the globe connected through the flights of the migratory birds that depend on them, and connecting inland

and northern breeding grounds with tidal flats to the south and in the southern hemisphere from the southern breeding grounds with tidal flats further north.

- **Tidal flats have high carbon sequestration capacity** similar to that of vegetated coastal ecosystems, especially in estuaries where the hydrodynamic environment promotes carbon burial and riverine sediment supply provides large quantities of organic matter, although research on their carbon capacity is neglected relative to vegetated systems.
- Tidal flats are **important carbon storage reservoirs**
- Tidal flats have an important role in climate adaptation including **disaster risk reduction**, coastal protection, flood defence, not least as sea levels rise and extreme weather events become more common.
- Tidal flats and associated working coastal habitats provide a range of critical **ecosystem services** to coastal communities, such as fisheries and other food production and tourism.

3. Threats to tidal flats

- With the continuing development, including land claim of coastal areas, sea level rise and coastal erosion, and more recently the drive for inappropriate mangrove plantation, the **extent of global tidal flats has reduced by over 16% (>20,000 km²) since 1984** (Murray et al., 2019³) with 38,630 km² lost since 1970 (Global Wetland Outlook, 2025⁴) with similar effects on working coastal habitats through land claim, abandonment and unsustainable management.
- Tidal flats are the **most threatened coastal ecosystem** with rates of loss that rival or exceed those of coral reefs and mangroves.
- Tidal flats are furthermore **degraded by threats** such as sediment loss e.g. due to damming of rivers, encroachment by invasive alien species, unsustainable harvest and pollution.
- Widespread loss and degradation of tidal flats and associated working coastal habitats has **reduced their capacity for services**, e.g., to protect and stabilize shorelines.
- The continued decline of tidal flats and associated working coastal habitats put at **risk** not only biodiversity, including millions of migratory waterbirds, but also the wellbeing of coastal communities that depend on them.

4. Major conservation gap for tidal flats and ecologically-associated working coastal habitats

- Despite their critical importance, tidal flats and ecologically-associated working coastal habitats remain **underrepresented in international policy and conservation frameworks**.
- Tidal flats and associated working coastal habitats are probably the **most neglected wetland/coastal ecosystem**; no international organisation is currently effectively championing their conservation internationally along the EAAF or globally and it is one of the few coastal ecosystems not covered by the Ocean Breakthroughs under the High-Level Champions of UNFCCC; they are only marginal to the Freshwater Challenge.

³ N. J. Murray, S. R. Phinn, M. DeWitt, R. Ferrari, R. Johnston, M. B. Lyons, N. Clinton, D. Thau, R. A. Fuller (2019) The global distribution and trajectory of tidal flats. *Nature* 565, 222–225.

⁴ Convention on Wetlands (2025) Global Wetland Outlook 2025: Valuing, conserving, restoring and financing wetlands. Gland, Switzerland: Secretariat of the Convention on Wetlands. DOI: 10.69556/GWO-2025-eng.

5. Why the EAAFP?

- A large proportion of the globally threatened and near-threatened migratory waterbirds owe their **threat status largely due to loss of tidal flats and associated habitats in the EAAF.**
- The **EAAF is home to critically important mudflats that rank amongst the most important tidal flats in the world**, as recognized by the World Heritage Listing of large areas of tidal flats in the Yellow/West Sea of China and the Republic of Korea, as well as Ramsar Sites in the Democratic Republic of Korea, and the fact that five of the eight top countries covering half of the world's total area of tidal flats, are in the EAAF (**Indonesia, China, Australia, the United States**, Canada, India, Brazil, and **Myanmar**).

Appendix 2

Terms of Reference

The EAAFP Initiative on Tidal Flats and Ecologically-associated Working Coastal Habitats ("EAAFP Tidal Flats Initiative – TFI")

1. Background and purpose:

This Initiative is established in line with the mandate provided by the Decision 17 adopted at the 12th Meeting of Partners entitled, "The EAAFP Initiative on Tidal Flats and Ecologically-associated Working Coastal Habitats (EAAFP Tidal Flats Initiative – TFI)" to assist the Partners to promote and deliver the protection, sustainable management, restoration, and connectivity of tidal flats and ecologically-associated working coastal habitats in the East Asian – Australasian Flyway (EAAF), including through supporting existing EAAFP Task Forces and Working Groups with a remit that includes work for these ecosystems. It will foster connectivity between them, and with actions for the Flyway Site Network. This is to fulfil commitments under the Partnership and Partner treaties such as the Convention on Migratory Species, the Ramsar Convention on Wetlands, the Convention on Biological Diversity, and the IUCN.

2. Goal:

To increase the area of priority well-functioning and sustainably managed tidal flats and ecologically-associated working coastal habitats in the EAAF to maintain or recover migratory waterbird populations that depend on them.

3. Geographic scope:

The Initiative will cover all coastal countries of the EAAF.

4. Role:

The role of the Initiative is to facilitate concerted, coordinated, cooperative, connected efforts to protect, sustainably manage and restore tidal flats and associated working coastal habitats such as saltpans, aquaculture and sewage ponds in the EAAF, including through securing their ecological, social and institutional connectivity.

5. Remit:

The Initiative will:

- a. Set priorities for its actions through a **work plan** and implement it;
- b. Collectively assist in **resource mobilization** for priority actions by EAAFP Partners;
- c. **Monitor the implementation** of the work plan and the effectiveness of this action and submit progress reports to the EAAFP MOPs;

- d. Facilitate internal (e.g. relevant EAAFP Task Forces such as Yellow Sea Ecoregion, Spoon-billed Sandpiper, Far Eastern Curlew; EAAFP Working Groups such as Shorebird, Anatidae, Seabird, Crane, Black-faced Spoonbill, CEPA; EAAFP Technical Advisory Group) and external (e.g. ASEAN Flyway Network) **connectivity of effort**, including through communication and exchange of information, experience, best practice and know-how, to ensure cooperation between EAAF Partners and others to promote connectivity among tidal flats and associated working coastal habitats of the Flyway, to the benefit of shared migratory waterbird species;
- e. **Compile and disseminate information** on the status and trends of tidal flats and ecologically-associated working coastal habitats in the Flyway, including importance for waterbirds and threats to tidal flat integrity and connectivity, opportunities for their conservation and evidence on the effectiveness of interventions;
- f. **Promote, including in liaison with the Flyway University Alliance, research into the functioning of mudflats as an ecosystem, and as a critical habitat for waterbirds**, to support sustainable management and restoration
- g. Support **identification and designation** of priority tidal flat Flyway Network Sites (FNS) and promote designation of priority tidal flat Ramsar Sites and World Heritage Sites;
- h. Support **human connectivity between tidal flat FNS, including via the EAAFP Sister Site Programme**, to support their protection, sustainable management, restoration and ecological connectivity;
- i. **Promote capacity-building, through existing mechanisms** for the evidence-based delivery of sustainable management and restoration of tidal flats and associated working coastal habitats through training of trainers e.g. in the Ramsar Regional Center – East Asia; and
- j. **Raise awareness** of the importance of tidal flats and ecologically-associated working coastal habitats and engagement, including governmental, in their conservation among key stakeholder groups, for example, supporting CEPA Working Group and the Secretariat in jointly developing campaigns and celebrations.

6. Membership

The Initiative will comprise representatives of EAAFP Partners, including Governments with tidal flats, and observers.

It will also involve relevant experts from the EAAF including from academic institutions and NGOs, as well as representatives of youth and local communities dependent on tidal flats and ecologically-associated working coastal habitats.

The following representatives will also be invited to contribute to the Initiative:

- Representatives of relevant EAAFP Task Forces;
- Representatives of relevant EAAFP Working Groups;
- Relevant representatives, as observers, from other flyways to ensure interflyway exchange of expertise and experience.

7. Governance

The Initiative will elect a Chair, a Vice Chair, and a Coordinator from amongst its members;

The Initiative will operate by seeking consensus among its members; and

The Initiative will operate in accordance with a *modus operandi*, which shall be established once the Initiative has been convened.

8. Operation

Meetings of the Initiative will be convened at appropriate intervals, as considered necessary and funding permitting;

Between meetings, business will be conducted electronically; and

The Initiative, in collaboration with Partners and relevant international organisations, subject to the availability of funds, will organise regional workshops to assist in delivering the goals of the Initiative, including back-to-back with EAAFP MOPs and other relevant forums.