



Implementing the Strategic Action Programme for THE SOUTH CHINA SEA AND GULF OF THAILAND (SCS SAP) Project

**Second Meeting of the Regional Working Groups on Mangroves and Wetlands
of the SCS SAP Project**

11-12 August 2025, Iloilo, Philippines

Report on National Activities to Implement the SCS SAP Project

(for the period January 2022 – July 2025)

Thailand

Director of the Marine and Coastal Resources Research And Development Institute (WL)

Director of the Mangroves Conservation Division (MG)



Presentation Outline

- Introduction
- Highlights of key achievements in implementing the SAP on MGs & WLs during 2022 – July 2025
- Summary on status of monitoring related MGs & WLs
- Availability of data and information at the sites on MGs & WLs
- Issues and Challenges
- Lessons learned
- Recommendations & Conclusions





Introduction

| | Mangroves (MG) | Wetlands (WL) |
|--|---|---|
| Date of PCA signature | 29 October 2021 | |
| Executing body and national focal point | <p>Executing Body: Mangroves Conservation Division, DMCR</p> <p>National Focal Point: Director of the Mangroves Conservation Division</p> | <p>Executing Body: Marine and Coastal Resources Research and Development Institute, DMCR</p> <p>National Focal Point: Director of the Marine and Coastal Resources Research and Development Institute</p> |
| Date of national working group establishment and meetings | <p>Established: 11 April 2024</p> <p>Meeting: 25 November 2024</p> | <p>Established: 11 April 2024</p> <p>Meeting: 11 December 2024</p> |
| Sites | 3 Sites: Welu River Estuary, Bandon Bay, Pak Panang Bay | 1 site: Don Hoi Lot |
| Co-finance project/activities related | 165,315.87 USD (in-kind) | |
| Members of TDA/SAP national team on ecosystem | 1. Associate Professor Dr. Thamasak Yeemin | |

Highlights of key achievements in Implementing the SAP on MGs & WLs during 2022 – July 2025

1. Newly established or upgraded Protected Areas (PAs) of all categories (nature reserve, sanctuary, fisheries management Ramsar)

| Activity | Site 1: Don Hoi Lot (WL) | Site 1: Bandon Bay (MG) | Site 2: Pak Panang Bay (MG) | Site 3: Welu River (MG) |
|---|---|---|---|--|
| Name of PA | DMCR plans to declare under Article 18 in 2028 | - Article 18 process initiated in 2018 - Currently recognized as wetland | Partially protected; east side is a designated wildlife sanctuary (เขตห้ามล่าสัตว์ป่าฯ) | DMCR plans to declare under Article 18 in 2026 |
| Date of establishment/upgrading | Currently recognized as wetland and Ramsar site | - Provincial PA status progressing | Article 18 process initiated in 2019 | |
| PA management plan (done/in progress) | In progress | In progress | In progress | In progress |
| Approved by | Provincial Admin. Committee, DMCR | DMCR, Provincial Committee | DMCR, Provincial Committee | DMCR, Provincial Committee |
| Total area of PA (ha) | ~8,000 | 8,371 | 10,735 | 16,334 |
| Area (ha) of MGs protected | ~1,200 (within wetland) | 8,371 | 10,735 | 16,334 |
| Area (ha) of WLs protected | ~8,000 | NA | NA | NA |
| Report of capacity assessment (yes/no) | Yes | Yes | Yes | Yes |
| Training course (on what?) | Wetland monitoring, resource mgmt, alt. livelihoods | Mangrove mgmt, zoning, law enforcement | Mangrove mgmt, restoration, monitoring | Mangrove mgmt, restoration, monitoring |
| Consultation (date/no. participants) | 2023–24 / 100+ | 2023–24 / 80+ | 2023–24 / 60+ | 2023–24 / 70+ |
| Zoning regulation (yes/no) | Yes | Yes | Yes | Yes |
| Type of enforcement (PA authority/community involvement) | Provincial/DMCR + Community | DMCR + Community, LMMA | DMCR + Community, local admin | DMCR + Community, local admin |

Highlights of key achievements in Implementing the SAP on MGs & WLs during 2022 – July 2025 (cont.)

2. Approval and implementation of plans for sustainable management & use

| Activity | Site 1: Don Hoi Lot | Site 1: Bandon Bay | Site 2: Pak Panang Bay | Site 3: Welu River Estuary |
|---|---|--|---|---|
| Report to review management status (yes/no) | Yes | Yes | Yes | Yes |
| Local consultation (date/no. participants) | 2023–24 / 100+ | 2023–24 / 80+ | 2023–24 / 60+ | 2023–24 / 70+ |
| Date of management plan submitted | 2023 | 2023 | 2023 | 2023 |
| Area (ha) of MGs managed by the plan | ~1,200 (within wetland) | 8,371 | 10,735 | 16,334 |
| Area (ha) of WLs managed by the plan | ~8,000 | NA | NA | NA |
| Date of approval | 2024 | 2024 | 2024 | 2024 |
| Approved by | Provincial Committee, DMCR | DMCR, Provincial Committee | DMCR, Provincial Committee | DMCR, Provincial Committee |
| Zoning regulations (yes/no) | Yes | Yes | Yes | Yes |
| Awareness raising campaign (date/no. participants) | 2023–24 / 250+ (multiple events) | 2023–24 / 200+ (multiple events) | 2023–24 / 120+ (multiple events) | 2023–24 / 130+ (multiple events) |
| Training course (on what, no. participants) | Wetland monitoring, resource mgmt, eco-tourism (80+) | Mangrove mgmt, zoning, enforcement (70+) | Mangrove mgmt, restoration, monitoring (50+) | Mangrove mgmt, restoration, monitoring (60+) |
| Area (ha) of MGs replanted/enriched | ~20 | ~50 | ~60 | ~90 |
| Type of livelihood alternatives | Eco-tourism, bivalve/clam harvest, value-added processing | Eco-tourism, community patrols, guide services | Eco-tourism, community fisheries, value-added | Eco-tourism, community fisheries, NTFP processing |
| What stakeholders involved | DMCR, Provincial Gov, community, LMMA, local tour ops | DMCR, Provincial Gov, community, LMMA | DMCR, local gov, community, fisher groups | DMCR, local gov, community, fisher groups |

Highlights of key achievements in Implementing the SAP on MGs & WLs during 2022 – July 2025 (cont.)

3. Reform of laws/regulations or management approach for the sustainable

| Activity | Site 1: Don Hoi Lot (Wetland) | Site 2: Bandon Bay | Site 3: Pak Panang Bay | Site 4: Welu River Estuary |
|--|--|---|---|--|
| Report to review law/regulations or management approach (yes/no) | Yes | Yes | Yes | Yes |
| Subject to be reformed (new approach, environment protection, ecosystem conservation...) | Provincial PA, Ramsar process, zoning, integrated management | Upgraded protection (Art. 18), LMMA, new zoning/resource rules | Upgraded protection, restoration/enforcement, co-management | Upgraded protection, stricter law enforcement, community co-management |
| Consultation (date/no. participants) | 2023–24 / 100+ | 2023–24 / 80+ | 2023–24 / 60+ | 2023–24 / 70+ |
| Date of disseminating law/regulations or new approach | 2024 | 2024 | 2024 | 2024 |
| Enacted by: | Provincial Committee, DMCR | DMCR, Provincial Committee | DMCR, Provincial Committee | DMCR, Provincial Committee |
| Key activities to improve management (capacity building, awareness raising, enforcement...) | Capacity building, zoning, eco-tourism, LMMA awareness | Capacity building, LMMA, community enforcement, alternative livelihoods | Restoration, enforcement, community monitoring, eco-tourism | Restoration, enforcement, patrols, community co-management |
| Increasing public awareness (much, better/no change) | Much | Much | Better | Better |
| Improved enforcement (much, better/no) | Better | Much | Much | Much |
| Area (ha) of MGs managed effectively | ~1,200 (within wetland) | 8,371 | 10,735 | 16,334 |
| Area (ha) of WLs managed effectively | ~8,000 | NA | NA | NA |

Summary on status of monitoring related MGs & WLs in Thailand

| Monitoring at the SCS SAP Sites | Site 1: Welu River (MG) | Site 2: Ban Don Bay (MG) | Site 3: Pak Phanang (MG) | Site 1: Don Hoi Lot (WL) |
|--|---|---|--|--|
| Methodology training (date/ no. participants) | - 2024-2025: Multiple community trainings for monitoring, legal rights, IEC; ~60 participants | - 2023-2024: Community training, LMMA, dugong, PR/IEC activities; ~50 | - 2024-2025: Trainings on mangrove products, community monitoring, ~40 | - 2023-2024: Community training on monitoring, habitat assessment, ~30 |
| Indicators & frequency | Mangrove: State, biodiversity, socio-economic; monitored quarterly | Mangrove, Seagrass: State, biodiversity, dugong/seagrass, socio-economic; quarterly | Mangrove: State, biodiversity, local livelihoods; quarterly | Wetland: State, biodiversity, artificial habitats, shorebirds, waste; quarterly |
| No. stations | 8 (Welu River) | 9 (Ban Don Bay, SG) | 9 (Pak Phanang) | 8 (Don Hoi Lot) |
| Date of 1st / 2nd monitoring practices | 1st: Q2 2024 2nd: Q1 2025 | 1st: Q3 2023 2nd: Q2 2025 | 1st: Q2 2024 2nd: Q1 2025 | 1st: Q4 2023 2nd: Q2 2025 |
| Trend of change of MGs and WLs | Improved (increased mangrove cover, active patrolling, enriched biodiversity) | Improved (LMMA operational, seagrass recovery, dugong sightings) | Improved (enrichment planting, better community engagement, local income up) | Improved (restoration, artificial habitats, waste reduction, shorebird monitoring) |



Availability of data and information at the sites on MGs & WLs

| CR & SG Data and Information Categories / total parameters | Site 1: Don Hoi Lot (WL) | Site 2: Bandon Bay (MG/SG) | Site 3: Pak Panang Bay (MG) | Site 4: Welu River Estuary (MG) | Reasons of data/information unavailability |
|--|--------------------------|----------------------------|-----------------------------|---------------------------------|---|
| Geographic information / 7 | 7 | 7 | 7 | 7 | — |
| Biological information / 15 | 13 | 13 | 12 | 12 | Partial for molluscs, crustaceans, some migratory birds; trend/time-series data limited |
| Social – use information / 7 | 6 | 6 | 5 | 5 | Some traditional use, ecosystem services, and informal sector data incomplete |
| Stress-pressure information / 5 | 5 | 5 | 5 | 5 | — |
| Economic valuation / 7 | 2 | 2 | 2 | 2 | Economic/valuation studies ongoing or partial at all sites |



Issues related to collection, gathering and provision of national data & information on MGs & WLs:

Shortages in collecting & managing data:

- Advanced biological (molluscs, crustaceans, migratory birds) and economic data still incomplete.

Mechanisms of data management & exchanges in the country:

- Centralized DMCR database; inter-agency sharing limited, regional exchange developing.

Consideration to monitoring socio-economic indicators:

- Medium; annual surveys at main sites, but not fully systematic.

Types of data available but impossible to provide:

- Sensitive or unpublished government/academic data; incomplete traditional use records.

Popular techniques used for mapping habitats:

- GIS, drone, and field surveys for validation.

Training needs on remote sensing application for mapping:

- Medium to high; sites need advanced analysis and data interpretation skills.

Suggestion for developing the regional database:

- Harmonize parameters, enable open access, and establish periodic joint updates.



Information related to economic valuation, blue carbon, and blue economy on MGs and WLs

Economic valuation:

- Ongoing studies assess the economic value of mangrove and wetland ecosystem services (coastal protection, fisheries, tourism, livelihoods).
- Preliminary results highlight high benefits for community income and climate adaptation.

Blue carbon:

- Baseline assessment of carbon stock and sequestration capacity is underway for demonstration sites.
- Results will support inclusion in national climate and carbon credit strategies.

Blue economy:

- Pilot projects on sustainable eco-tourism, NTFP (non-timber forest products), and community-based fisheries are in progress.
- Focus on increasing local incomes and sustainable financing for long-term habitat management.



Key Issues & Challenges

- Sustaining Results & Funding:** Ensuring long-term conservation and management, especially for remote and island sites, is difficult without continued integration of government, private sector, and community resources.
- Community Capacity & Engagement:** The effectiveness of conservation depends on strong local group formation, ongoing knowledge transfer, and leadership development. Some communities still lack awareness or sense of resource ownership.
- Data Gaps & Monitoring:** Advanced biological, socio-economic, and economic valuation data are incomplete. Systematic, continuous monitoring and data sharing between agencies and communities remain a challenge.
- Legal and Institutional Constraints:** Enforcing new zoning, LMMA, and fisheries/resource regulations can be difficult at the local level; buy-in from communities is required, and regulatory complexity persists.
- External Pressures:** Ongoing threats include coastal erosion, pollution, climate change, and illegal encroachment, all of which require adaptive and integrated ecosystem-based management.

Lessons Learned & Good Practices

- Community-Driven Management:** Success stems from empowering communities as owners and co-managers of mangroves and wetlands; participatory planning and regular consultation are essential.
- Integration of Livelihoods & Conservation:** Linking habitat protection to sustainable income (eco-tourism, value-added products, NTFPs, sustainable fisheries) greatly increases local buy-in and sustainability.
- Strengthening Partnerships:** Multi-sector collaboration—government, private sector, academia, and communities—builds resilience and enables knowledge and resource sharing.
- Knowledge Management:** Ongoing training, communication (including local champions and media), and systematic experience exchange help transfer lessons across sites and sectors.
- Adaptive Management:** Continuous learning, flexible approaches, and community feedback mechanisms improve effectiveness and resilience of management interventions.



Recommendations and Conclusion

- **Strengthen community-based and LMMA/co-management approaches** to ensure long-term sustainability of mangroves and wetlands.
- **Complete data gaps:** Prioritize systematic biological, socio-economic, and economic valuation data collection and regular site-level monitoring.
- **Scale up sustainable livelihoods:** Expand eco-tourism, value-added products, and NTFP/fisheries models linked to conservation objectives.
- **Enhance multi-sector partnerships:** Foster greater collaboration among government, private sector, academia, and local communities for shared resource management and funding.
- **Invest in knowledge management and training:** Promote continuous learning, exchange forums, and advanced skills in monitoring, restoration, and remote sensing.
- **Ensure financial sustainability:** Develop and mainstream sustainable financing mechanisms (e.g., blue carbon credits, trust funds, eco-tourism fees).
- **Promote adaptive, ecosystem-based management:** Build resilience to climate change and external threats through flexible, participatory approaches.

Conclusion:

The project has made significant progress in strengthening protection, management, and community stewardship of mangroves and wetlands. Continued partnership, adaptive management, and local empowerment are critical for achieving long-term SAP goals.



Thank you
for your attention.