



THE 27TH MEETING OF THE COMCEC TOURISM WORKING GROUP

PERSPECTIVES OF MEMBER COUNTRIES · MALAYSIA

FROM MEASUREMENT TO CLIMATE ACTION: RESILIENT TOURISM STRATEGY

Integrating evidence-based measurement, smart destination systems, and whole-of-society governance for climate-adapted tourism ecosystems

The Ankara Hotel, Ankara, Türkiye

16 September 2026



Outlines

1. The Urgency: Climate Pressures
2. Strategic Policy Alignment
3. The Mersing Pilot: INSTO Scope
4. Systematic INSTO Monitoring
5. Smart Governance: MeTOS Platform
6. Whole-of-Society Governance
7. Strategic Recommendations for COMCEC



THE URGENCY: CLIMATE PRESSURES

DIMENSION 01

Carbon Footprint

- Tourism accounts for **8–11%** of global greenhouse gas emissions, according to UN Tourism benchmarks.
- **Aviation, commercial accommodation, and inter-city transport** remain heavily carbon-intensive.
- Requires urgent sectoral alignment with international net-zero decarbonisation trajectories.



DIMENSION 02

Ecosystem Vulnerability

- Tropical islands and marine assets face catastrophic **coral bleaching** and severe **coastal erosion**.
- **Unmanaged visitor** density accelerates the degradation of natural protective coastal barriers.
- Intensifying monsoon shifts disrupt seasonal operations, maritime transit, and infrastructure stability.



DIMENSION 03 • PRIORITY CHALLENGE

Socioeconomic Leakage

- An estimated **50–80%** of visitor expenditure currently leaks out of local destination host economies.
- Host communities often lack the **technical capacity** and **access** to capital to build climate resilience buffers.
- Long-term destination stability demands direct grassroots community co-management and retained economic value.



TIER 01

Macro Climate Goals

- **National Climate Change Policy 2.0:** Systematically mainstream national mitigation and adaptation priorities.
- **Energy Transition Roadmap (NETR):** Accelerates low-carbon infrastructure and clean utilities nationwide.
- **Net-Zero by 2050 Aspiration:** Cross-sectoral statutory target mandating carbon footprint reductions in service sectors.



TIER 02

Tourism Sector Bridge

- **National Tourism Policy (NTP 2020–2030)** - Strategy 05 establishes Sustainable & Responsible Tourism as a core pillar.
- Directly translates national macro pledges into measurable sectoral performance standards.
- Improving accommodation energy efficiency, expanding green mobility options, and preserving critical assets.



TIER 03 • LIVING LAB

Mersing INSTO Sandbox

- Proposed establishment of Malaysia’s pioneering UN Tourism INSTO Sustainable Tourism Observatory.
- Rigorous tracking across Climate Action, Water Conservation, Energy, and Solid Waste.
- Generates verified empirical baseline data to test, refine, and deploy practices nationwide under NTP.



THE MERSING PILOT: INSTO SCOPE

Profile
Strategic Coastal Asset

Gateway to Sultan Iskandar Marine Park (Pulau Aur, Pulau Sibul, Pulau Besar, Pulau Rawa). Prioritised under the NTP 2020–2030 & National Ecotourism Plan, it faces Northeast Monsoon weather extremes and delicate coral ecosystems.

Partnership
UNDP-MOTAC Governance

Comprehensive 6-month technical baseline study executed alongside UNDP. Fully co-funded by the Johor State Government under regional development plans, with the Mersing District Council (MDM) as the secretariat.

Mandatory Scope
11 UN Tourism Fields

Systematic tracking across Climate Change, Water, Energy, and Solid Waste; spatial carrying capacity and seasonal dispersal; and socioeconomic vitality, including direct local employment and resident satisfaction.



Sultan Iskandar Marine Park Archipelago
Mersing pilot zone establishing rigorous carrying capacity ceilings, seasonal monsoon mitigation, and reef preservation.

PLATFORM ARCHITECTURE

MeTOS Data Hub

- MeTOS **aggregates** visitor flows, vessel manifests, and licenses.
- **Harmonises** occupancy trends, water/utility consumption, and sensitive ecological indicators.
- Serves as an **operational digital benchmark** for local municipal authorities across Malaysia.



PREDICTIVE ANALYTICS

Riyadh Declaration Insights

- **Harnesses predictive algorithms** to model real-time carrying capacity and tourist distribution.
- **Triggers preventative alerts** for ecosystem degradation and extreme monsoon disaster preparedness.
- Establishes **transparent** data stewardship, ensuring automated systems enhance local human oversight.



MACRO INTEGRATION • POLICY IMPACT

Economic Accounting

- **Synchronises localised destination metrics** with national Tourism Satellite Accounts (TSA).
- Integrates directly with the UN System of Environmental-Economic Accounting (SEEA).
- Provides verified quantitative data to substantiate national green budget allocations and resilience subsidies.



LOCAL GOVERNMENT

District Authority (MDM)

- Leads inter-agency working teams across mainland, coastal, and island zones.
- Enforces environmental zoning bylaws, commercial licenses, and mandatory waste sorting.
- Orchestrates emergency protocols and risk mitigation during annual severe monsoon seasons.



GRASSROOTS FRONTLINE • CORE ANCHOR

Communities & Homestays

- Homestay operators (e.g., *Kampung Air Papan*) serve as primary community ecological monitors.
- Directly captures visitor spending locally, countering the **50–80%** destination economic leakage phenomenon.
- **Marine Custodianship**, in which local fishermen and certified boatmen serve as active stewards of marine sanctuary boundaries.



INSTITUTIONAL PARTNERS

Academia & Green NGOs

- Public research universities design empirical methodologies, survey instruments, and peer audits.
- Groups such as Sustainable Travel Mersing implement coral restoration and coastal cleanups.
- MOTAC oversees alignment with national strategies and multilateral reporting bodies.



STRATEGIC RECOMMENDATIONS FOR COMCEC

CONSULTATIVE CONSIDERATIONS

ADVISORY PRINCIPLE

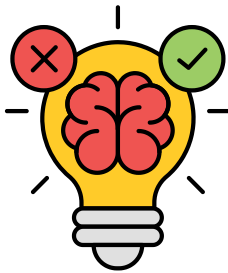
Member states may wish to anchor shared climate efforts in established global frameworks (such as **UN Tourism INSTO** & the **Riyadh Declaration Roadmap**) to avoid duplicative reporting, prioritising voluntary, demand-driven cooperation.

RECOMMENDATION 01

KNOWLEDGE SHARING

Smart Data Exchanges

- Encourage voluntary information sharing on digital destination platforms like MeTOS.
- Explore technical exchanges regarding carrying-capacity modelling and visitor dispersal tools.
- Examine methods for linking local metrics to TSA.



RECOMMENDATION 02

PEER LEARNING

Climate-Risk Benchmarks

- Facilitate optional bilateral peer dialogues on destination climate indicators and risk matrices.
- Review voluntary guidelines for freshwater conservation, clean energy, and waste reduction.
- Share non-binding best practices for protecting delicate marine parks and coastal assets.



RECOMMENDATION 03

COMMUNITY FOCUS

Grassroots Adaptation

- Consider community-centred adaptation approaches to minimise economic leakage.
- Promote case study exchanges involving local councils, homestays, and local SMEs.
- Explore voluntary destination-to-destination knowledge exchanges on nature-based solutions.



THANK YOU *TERIMA KASIH* *TEŞEKKÜRLER*

"Resilient tourism cannot be achieved by policy declarations alone; it requires actionable data, accountable governance, and an empowered community."

