Chapter 6 Governance

"Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP Project)"

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Abstract

Cambodia's coastal and marine governance is evolving rapidly as economic growth and coastal development intensify, accelerating investment in ports, tourism, and coastal infrastructure and increasing cumulative risks across nearshore and offshore waters. Enabling conditions have strengthened through updated laws, institutions, and partnerships, including NCCMD/NCSD and provincial mechanisms, while community-based management has expanded with support from conservation NGOs and multi-year programmes such as CAPFISH and GoTFish. Regional engagement through ASEAN, COBSEA, and PEMSEA supports policy learning and technical cooperation on fisheries, habitat protection, marine litter, and coastal planning. Despite these advances, some constraints persist. The marine mandate for NCCMD remains pending, UNCLOS has not yet been domestically ratified, and coordination remains uneven across fisheries, ports, tourism, conservation, and land-based development. Operational capacity—patrol assets, case follow-up, laboratories, and O&M budgets—lags behind investment and emerging climate and pollution pressures. In several sites, MPAs/MFMAs and co-management are limited by financing gaps, weak compliance incentives, and inconsistent monitoring and enforcement. Data systems are improving, including more regular fisheries monitoring and strengthened SDG reporting, yet data-to-decision feedback loops remain challenging and financial gap. Priority directions emphasize completing core governance instruments; operationalizing marine spatial planning with cumulative-impact thresholds and climate-risk layers; scaling MPAs/MFMAs and ecosystem-based fisheries management; reducing pollution loads through wastewater upgrades and circular-economy measures; strengthening oil-spill preparedness and port environmental management; mobilizing blue/green finance for O&M and enforcement; institutionalizing open marine data and public accountability; and deepening Gulf of Thailand and Mekong cooperation to address shared stocks, transboundary pollution, and climate risks.

Keywords: *Cambodia; coastal governance; ICZM; marine spatial planning; MPA/MFMA; co-management; pollution control; oil-spill preparedness; sustainable finance; marine data systems; climate adaptation; Gulf of Thailand cooperation.*

6. Governance

6.1 Key Findings

- **Rapid growth with rising coastal pressures.** GDP increased from US$3.7 billion (2000) to about US$46 billion (2024), and GDP per capita from ~US$300 to >US$2,600. High investment (≈30–34% of GDP) and strong FDI (≈9–10%) are driving ports, tourism and industrial estates that intensify pressure on coastal and marine resources.
- **Sustainable-finance tools emerging, but marine funding remains limited.** New instruments—sustainable finance principles, a green taxonomy and bond guarantees—create space for blue/green bonds, yet fisheries conservation budgets remain modest (≈US$150,000–440,000, 2013–2020).
- **Expanding PPP and infrastructure pipeline.** The PPP Law and VGF have enabled more than a dozen solicited and several unsolicited projects, including logistics hubs and tourism ports, offering opportunities for the blue economy but requiring stronger integration with ICZM/MSP.
- **ICZM institutions and laws exist, but mandates at sea are incomplete.** NCCMD, NCSD, line ministries and PCCMDs form a multi-level structure supported by modern laws. However, the marine mandate for NCCMD is still pending and UNCLOS is not yet domestically ratified.
- **Protected areas and data systems improving but not yet effective at scale.** Koh Rong MFMA/MNP, Kep and Prek Kampong Smach MFMAs, plus Ramsar/coastal PAs, form a growing network. FiA's marine catch monitoring and 6.5.1/6.5.2 scores (≈62% IWRM; 98% transboundary coverage) show progress, but patrol assets, prosecutions, O&M budgets and adaptive management remain insufficient.
- **Civil society and private actors are central but unevenly resourced.** CFis/CPAs, NGOs and major projects, lead co-management, monitoring and restoration. Tourism and port operators are increasingly engaged, yet committee capacity, stable financing and fair grievance/benefit-sharing mechanisms remain limited.

6.2 Current Status

6.2.1 Economic and Policy Drivers

6.2.1.1 Political–economic drivers and trends

Cambodia's GDP expanded from US$3.7 billion (2000) to US$46.4 billion (2024e), with GDP per capita rising from US$296 to US$2,628. Real growth averaged 7–8% pre-COVID, contracted –3.6% in 2020, and recovered to ~5–6%, with ~4% projected for 2025 (World Bank, 2025a; 2025b; FRED/WB, 2025). This trajectory drives—and strains—coastal development, ports, extractives and tourism in the SCS/GoT interface.

Table 6-1 Summary of Cambodia key selected economic indicators (2020 – 2024)

Key Economic Indicators	2020	2021	2022	2023	2024
GDP (current US$) - Billions	34.82	36.79	39.99	42.34	46.35
GDP (annual % of change)	-3.56	3.09	5.13	5.01	6.02
GDP per capital (current US$)	2081.74	2167.40	2325.03	2429.75	2627.88

Sources: World Bank Group, Cambodia Data (WDI). *See Annex Table 6-2 for more detail of the trend of key economic indicators)*

Public finance remains prudent (debt ~24–27% of GDP in the 2010s; ~29% projected for 2025), creating space for blue-economy investment if safeguards are strong, while inflation is moderate and the current account deficit persists due to import-intensive investment and tourism shocks (IMF, 2025b; World Bank, 2021).

Gross fixed capital formation has increased (21–33% of GDP), reflecting sustained infrastructure development. FDI remains high (~8–11% of GDP; US$3.6–4.4 billion/year), shaping coastal logistics and industrial estates. The Coastal Provinces Master Plan outlines 141 projects (~US$20 billion over 15 years) in transport, municipal services, social development and ecological restoration, positioning the coast as a competitive investment and tourism corridor.

6.2.1.2 Sustainable Financing Initiatives

Cambodia is strengthening enabling conditions for blue/green finance through sustainable finance principles, a developing taxonomy, and bond guarantees that could mobilize private capital for wastewater, solid waste, NbS, and greener ports (ABC, 2019; Green Finance Platform, 2019; CGCC, 2024). The Cambodia Sustainable Finance Principles (2019), endorsed by the Association of Banks in Cambodia and NBC, guide lenders on ESG, while the NBC–IFC Green/Sustainable Finance Taxonomy (initiated in 2023) is being developed with a 2024–25 roadmap to classify blue/green assets (CSFP; NBC–IFC). The CGCC Bond Guarantee Framework (2024) can also de-risk corporate (including sustainability-labelled) bonds, complementing UN-ESCAP/SERC/GGGI support via the Cambodia Sustainable Bond Accelerator (CGCC; UN-ESCAP). However, public financing remains limited and skewed: fisheries conservation budgets rose (DFC from US$150,000 in 2013 to US$440,000 in 2020) but ~85% still targets freshwater and only ~15% supports coastal/marine priorities (World Bank, 2021). NPASMP 2017–2031 estimated US$46.8 million for its first five years, yet biodiversity spending is ~0.18% of the central budget, highlighting chronic under-financing of marine conservation and enforcement (World Bank, 2021).

6.2.1.3 Public–private partnerships (PPP)

On infrastructure, the **PPP Law (2021)** established standard procedures and a **Viability Gap Fund (VGF)**. Active pipelines feature **12 solicited** (e.g., Sihanoukville Logistics Complex; Kampot International Tourism Port) and **7 unsolicited** projects (e.g., Phnom Penh–Sihanoukville Expressway; Funan Techo Canal), several of direct relevance to coastal systems and port capacity (RGC/MEF, 2021; GDPPP, 2025). See Annex Table 6-3 for more detail.

6.2.1.4 Poverty context

The national poverty rate fell from **47.8% (2007)** to **13.5% (2014)** (World Bank, 2014; PEAMSEA MoE, 2019). Through the next decade, monetary poverty declined from **33.8% (2009)** to **17.8% (2019/20),** but COVID-19 likely added **~2.8 percentage points**, exposing the fragility of near-poor, informal and tourism-reliant households—including in coastal provinces (Karamba & Tong, 2022). Emergency cash transfers via **IDPoor** softened the shock and prevented further slippage (World Bank, 2022).

6.2.2 Institutional Setting

6.2.2.1 National Coordination (ICZM)

The National Committee on Coastal Area Management and Development (NCCMD), established in 2012 and chaired by MLMUPC, is the government's primary ICZM coordination body. Its mandate is to guide coastal development and improve inter-ministerial coordination for sustainable management, conservation and local livelihoods. In practice, its authority has focused on coastal lands, with limited reach over marine waters and fisheries. A draft sub-decree aims to extend NCCMD's mandate to the full marine space and formalize coordination with the National Committee for Maritime Security (NCMS), reducing fragmented sea-use decisions as port, tourism and aquaculture investments expand.

The National Council for Sustainable Development (NCSD) provides the **horizontal policy umbrella** for sustainability, climate and circular economy across government. It is mandated to prepare, coordinate and monitor policies, strategies, legal instruments and plans, and to **report internationally** on Cambodia's commitments (NCSD, **2015**). NCSD is the natural locus for aligning climate (CCCSP 2024–2033; NDC 3.0) with marine governance once the NCCMD sub-decree is issued.

6.2.2.2 Line ministries and competent authorities

MLMUPC: Chairs NCCMD; leads land policy, spatial/urban planning and construction—critical to coastal setback, reclamation control and settlement planning (World Bank, **2021**).

MoE – Department of Coastal Zone and Marine Conservation (DCZMC): Established in 2016 to drive marine/coastal conservation and ICM implementation, and to apply the Code on Environment and Natural Resources (EIA, participation, compliance) to coastal projects (World Bank, 2021).

MAFF – Fisheries Administration (FiA): Statutory authority for marine and inland fisheries; sets and enforces harvest rules, establishes MFMAs, and runs catch monitoring. The Department of Fisheries Conservation (DFC) leads coastal conservation/ enforcement (World Bank, 2021).

MPWT: Through the Merchant Marine Department and the General Department of Waterway–Maritime Transport and Port, regulates ports, shipping and waterways; is Cambodia's main counterpart to the IMO on maritime safety and pollution control (World Bank, 2021; IMO, 2025).

MME: Leads hydrocarbons/mining policy and licensing, including any offshore oil & gas elements (World Bank, **2021**).

MoT: Plans and promotes coastal tourism, infrastructure standards and destination management; an anchor player for marine-based livelihoods and visitor pressure management (World Bank, **2021**).

6.2.2.3 Sub-national arrangements

Provincial Committee for Coastal Management and Development (PCCMDs): Each coastal province (Kampot, Kep, Preah Sihanouk, Koh Kong) has a PCCMD, chaired by the governor and comprising departmental and district decision-makers. They serve as NCCMD's arms for screening and coordinating coastal development, environmental protection and donor alignment at the provincial scale (World Bank, 2021).

6.2.2.4 Emergency preparedness and oil spill governance

A sub-decree and a national contingency plan for national oil spill preparedness and response are drafted but not promulgated, creating a response gap for major spills in the Gulf of Thailand (ITOPF, 2019). Interim reliance is on operator/port plans and regional arrangements (ASEAN OSRAP; Gulf of Thailand cooperation). Making the national plan legally effective—with a sensitivity atlas, tiered equipment, command system, and funding/levies—is a high-impact, near-term governance fix (ITOPF, 2019).

6.2.2.5 Regional and International cooperation

Because many coastal and marine challenges are transboundary, Cambodia actively participates in regional cooperation mechanisms.

COBSEA and ASEAN: Cambodia engages in COBSEA initiatives on marine litter, pollution and habitat protection (RAP-MALI; Marine & Coastal Ecosystems Framework), supporting learning on EPR, port-reception and litter monitoring (UNEP/COBSEA, 2019; 2023). Through ASEAN, Cambodia also cooperates on fisheries, biodiversity and disaster risk reduction.

PEMSEA: Through PEMSEA, Cambodia has produced State of the Coasts reports and applied Integrated Coastal Management (ICM) in Sihanoukville. ICM now covers the entire 435 km coastline—an important process milestone that requires consolidation through MSP and stronger enforcement finance (PEMSEA, 2024).

Bilateral cooperation: Cambodia maintains agreements and dialogue with Viet Nam and Thailand on fisheries and pollution control. Joint patrols against IUU fishing occur intermittently but need formalization and more consistent implementation.

Global initiatives: Cambodia contributes to SDG 14 and the Kunming–Montreal Global Biodiversity Framework (30×30), aligning national actions with global ocean and biodiversity commitments.

IMO/MARPOL: Cambodia is an IMO Member State; the priority is translating this into effective port-state control and port compliance (IMO, 2025).

6.2.3 Legal and Policy Setting

Cambodia's coastal–marine governance sits on a wide base of multilateral environmental agreements, complemented by regional cooperation platforms and an evolving domestic legal framework. See Annex Table 6-6 for the summary of the Cambodia's coastal related legal and policy frameworks.

6.2.3.1 International conventions and agreements

Cambodia is party to the major chemicals, biodiversity, climate, and wetlands conventions that shape coastal and marine management. Ratification of the **Basel (2001)**, **Rotterdam (2013)**, and **Stockholm (2006)** Conventions provides the legal basis to regulate hazardous waste, control trade in dangerous chemicals, and phase out POPs—key for estuarine water quality, mangrove health, and seafood safety.

In biodiversity, Cambodia participates in **CITES (1997)** and the **Convention on Biological Diversity (1995)**, enabling trade controls for listed marine species (e.g., sharks, seahorses) and requiring national strategies and reporting for reefs, seagrass, and coastal wetlands.

For climate, Cambodia is party to the **UNFCCC (1995)**, **Kyoto Protocol (2002)**, and **Paris Agreement (2017)**, framing mitigation/adaptation duties, access to climate finance, and

justification for coastal resilience investments (e.g., NbS, wastewater upgrades, storm-surge protection).

Wetlands protection is anchored in the **Ramsar Convention (1999)**, with Koh Kapik & Associated Islets providing a long-standing legal basis for mangrove restoration, nursery protection, and community-based estuarine management.

International engagement has deepened with Cambodia's signature and September 2025 ratification of the **BBNJ ("High Seas")** Treaty, committing to area-based tools, EIA, monitoring, and benefit-sharing beyond national jurisdiction. Conversely, **UNCLOS** remains unratified—an enduring governance gap as clarity on maritime zones, rights, and cooperation mechanisms still depends on its accession.

6.2.3.2 Regional agreements and cooperation

PEMSEA (SDS-SEA & ICM): Supports mainstreaming of marine-pollution control, biodiversity conservation and climate action across the 435-km coastline, and provides peer review for MSP and monitoring (PEMSEA, 2023; 2024).

COBSEA (RAP-MALI & Marine & Coastal Ecosystems Framework): Guides policy coherence on plastics, habitat protection, data and financing under regional strategic directions (UNEP/COBSEA, 2019; 2023).

Maritime-risk cooperation: Cambodia participates in Gulf of Thailand arrangements and the ASEAN MoU on Joint Oil Spill Preparedness and Response (2014), a key mechanism as tanker and port traffic grows along the Sihanoukville corridor (ASEAN, 2014; ITOPF, 2019; IMO, 2023).

6.2.3.3 National laws and regulations

The **Code on Environment and Natural Resources (2023)** modernizes Cambodia's environmental governance by consolidating EIA/SEA, access to information and participation, compliance, and enforcement—thereby strengthening the enabling environment for marine and coastal regulation across sectors (MoE, 2023).

Sectoral pillars include the **Law on Fisheries** (2006, with subsequent amendments and implementing prakas) that enables community fisheries and the declaration of **Marine Fisheries Management Areas (MFMAs)**; the **Protected Areas Law** (2008) with zoning procedures used in coastal parks; the **Law on Water Resources Management** (2007); the **Forestry Law** (2002); and the **Land Law** (2001), all shaping land–sea interactions such as shoreline tenure, concessions, watershed sediment and pollution control (UNODC/SHERLOC, 2006; CDC, 2008; ODC, 2001–2008).

Royal Decrees establish key coordination bodies: the **National Committee on Coastal Area Management and Development (NCCMD)** for coastal planning/ICM, and the **National Council for Sustainable Development (NCSD)** for cross-government sustainability oversight and international reporting (Royal Decree—NCCMD, 2012; Royal Decree—NCSD, 2015). **Sub-decrees** operationalize site-level administration and conservation (e.g., **Peam Krasop Wildlife Sanctuary** zonation; **Organization and Functioning of the NCCMD Secretariat**) (RGC, 2011; RGC, 2012).

6.2.3.4 Marine/coastal management instruments

Cambodia has advanced a mixed protected-area/EAFM model. The **Koh Rong Archipelago MFMA** (Prakas No. 364, 2016) created the first large co-managed marine area; the **Koh Rong**

Marine National Park (MNP) (Sub-Decree No. 14, 2018; **52,498 ha**) gives national-park status over the same island group; Kep's **Koh Po–Koh Tonsay MFMA** (2018) and **Prek Kampong Smach MFMA** (2022) extend the network to additional habitats and landing areas (FiA/MAFF, 2016; MoE, 2018; FiA/MAFF, 2018; FiA/MAFF, 2022). Proposed designations (**Koh Sdach MFMA**, **Kampot MFMA**) and the concept for **Koh Kong Krao MNP** are in the pipeline, but require formalization, sustained budgets, patrol capacity, and monitoring to reach ecological effectiveness (World Bank, 2021; FFI, 2024).

6.2.3.5 Policy strategies, plans and circulars

Strategic instruments provide the main framework for implementation. The **National Protected Area Strategic Management Plan (2017–2031)**, the Fisheries Strategic Planning Framework (2015–2024), and the **Sea Turtle Action Plan (2016–2026)** set targets for conservation, CFis, value chains and by-catch mitigation (MoE, 2017; MAFF/FiA, 2015; 2017). **Circular No. 01 on Coastal Development (2012)** offers useful planning principles but remains weak on enforcement (World Bank, 2021).

Forward-looking policy is guided by the **Circular Strategy on Environment 2023–2028** and the Climate Change Strategic Plan 2024–2033, both aligned with **NDC 3.0** to mainstream climate resilience, circular economy measures and coastal adaptation (NCSD, 2023; 2024).

Marine planning and risk management are advancing but incomplete. A draft **Marine Spatial Plan for the EEZ** appears in national/regional documents, and draft oil-spill arrangements—including a dispersant policy—have been prepared with IMO/PEMSEA support but are still awaiting formal adoption (PEMSEA, 2018; IMO, 2023; World Bank, 2021).

For pollution control, Cambodia relies on key sub-decrees on **Water Pollution Control (Sub-Decree No. 27/1999)** and **Solid Waste Management (Sub-Decree No. 113/2015)**, which establish discharge standards, licensing requirements and core obligations for waste generators. These are complemented by more recent policy instruments, including the **National Policy on Waste Management (2018)** and the **National Action Plan for Marine Plastic Waste Management (2023–2030)**.

6.2.3.6 Data systems, monitoring, and SDG indicators

Implementation capacity has been boosted by **FiA's monthly marine catch monitoring** at landing sites since **2021**, generating CPUE, effort, species, and value statistics for Kampot, Kep, Koh Kong, and Preah Sihanouk; these data are already informing MFMA zoning and EAFM pilots (FiA, 2023). Progress against global indicators includes **SDG 14.6.1** on instruments to combat IUU fishing (FAO scoring and narratives) and **SDG 14.2.1** on ecosystem-based approaches, which Cambodia evidences through its MFMA/PA/ICM portfolio (FAO, 2024; UN Statistics Division, 2020).

6.2.4 Civil society, stakeholders, and participation

6.2.4.1 NGO Co-management, Programs, and financing pipelines

A dense network of conservation NGOs supports day-to-day marine co-management in Cambodia. FFI, MCC, WEA, and WCS assist with MFMA zoning, joint patrols, ecological surveys, and habitat restoration, and evidence from Koh Rong suggests NGO-supported patrols and community engagement improve compliance compared with less-supported sites (FFI, 2020; MCC, 2022). These organizations also translate science into practical rules and help CFis/CPAs apply sanctions and procedures (FFI, 2020; WCS, 2023). Implementation is reinforced by major multi-year investments, including CAPFISH (EU–FAO/UNIDO, 2019–;

~US$18.96 million capture component) to improve post-harvest value chains, hygiene, and legality (FAO, 2024); GoTFish (GEF, 2023–2028) to support ecosystem-approach fisheries management and shared stock assessments in the Gulf of Thailand (GEF, 2023); CamAdapt (FAO/GEF–MAFF–MoE, 2022–2027) to fund adaptation, livelihood diversification, and risk-informed coastal planning (FAO, 2022); and the ADB Sustainable Coastal & Marine Fisheries Project (2023–) to upgrade landing sites, cold chain, and community-based management (ADB, 2023). Complementary efforts include wildlife-crime control (WCS–EU, 2019–2022) and site-based conservation by IUCN (2021–2025), MCC (2016–ongoing), and WEA (2016–ongoing).

6.2.4.2 Community institutions and legal empowerment

CFis and CPAs are the core legal structures for coastal co-management, with assemblies, elected committees and by-laws governing gear, access and habitat protection. While participation rights are strong on paper, capacity varies—committee turnover, bookkeeping challenges and uneven sanction follow-through are common (ODC, 2022; ClientEarth, 2020). Sites receiving NGO support—for transparent budgeting, public posting of accounts and women/youth sub-committees—show higher compliance and patrol performance (ADB, 2023; World Bank, 2021).

6.2.4.3 Participatory monitoring and data systems

SMART patrols and Kobo-based catch/incident logs are widely used in NGO-supported areas and increasingly linked with FiA's landing-site monitoring (CPUE/effort/species/value) to justify closures, gear limits and new no-take zones (FiA, 2023). Time-series evidence has shifted PCCMD/FiA discussions from anecdote to data (FAO, 2025). Academic partners (RUA, RUPP) provide ecological/socio-economic surveys and student training that feed into these monitoring systems (RUA, 2024; RUPP, 2024).

6.2.4.4 Public mobilization and campaigns

Plastic-reduction and clean-up campaigns—***"Today, I Do Not Use Plastic (Bags)"*** and ***"Clean Cambodia, Khmer Can Do!"***—mobilized more than 10 million participants by 2024–2025, with visible declines in plastic-bag use and expanded coastal clean-ups (MoE, 2023; Phnom Penh Post, 2024; Cambodianess, 2024). Youth-led initiatives further reinforce readiness for upstream measures such as EPR and port-reception requirements (UN-PAGE, 2025).

6.2.4.5 Private sector and market levers

Hotels, dive operators, seafood buyers and ports are increasingly involved in beach cleans, mooring codes, gear-swap schemes and steps toward environmental management systems at PPAP and PAS (PEMSEA, 2024; World Bank, 2021). Buyer requirements for legality and traceability—strengthened through CAPFISH and ADB programmes—serve as effective levers for aligning fishing practices with MFMA rules (FAO, 2024; ADB, 2023).

6.2.4.6 Gaps and opportunities

Despite strong NGO–community engagement and new financing, three structural gaps still constrain effective coastal co-management in Cambodia. Table 6-2 below presents each gap with a concrete, near-term opportunity, and suggested leads.

Table 6-2 Stakeholders and partnerships: gaps and opportunities for coastal co-management

Structural gap	Evidence & implications	Practical opportunity / action	Suggested lead actors
Unpredictable financing for community patrols and restoration O&M after projects end	Patrol intensity and restoration upkeep drop when project grants lapse; sub-national budgets are thin and irregular, risking backsliding on MFMA compliance and habitat gains.	Establish a pooled **Coastal Co-management Fund** that disburses against MFMA compliance indicators (patrol days, violation follow-up, habitat maintenance), fed by CAPFISH/ADB counterpart funds, blue philanthropy, and private levies.	MAFF/FiA, MoE (DCZMC/PA), MEF (Budget/Trust Fund), PCCMDs; NGO partners (FFI, MCC, WEA, WCS)
Weak integration of citizen/NGO data into official statistics and decisions	SMART/Kobo patrol logs and community catch notes inform local action but are inconsistently ingested into FiA bulletins or zoning reviews; missed chance to make rules adaptive.	Create formal **data pipelines** and QA protocols from SMART/Kobo → FiA landing-site system (CPUE/effort/species) and MoE PA/MFMA dashboards; standardize meta-data and feedback loops to PCCMDs.	FiA (Statistics/DFC), MoE (DCZMC/PA), NGO data hubs; RUPP/RUA for QA/training
Limited, trusted grievance & benefit-sharing mechanisms for ports/tourism impacts	Conflicts over moorings, wakes, litter, or access persist; communities perceive uneven benefit capture, undermining rule legitimacy.	Codify **clean-marina/harbour protocols** (waste reception, no-discharge, mooring codes) and set up **grievance/benefit-sharing charters** at priority sites; align with RAP-MALI and port EMS upgrades.	MPWT (Ports), MoT, PCCMDs, port operators, municipal councils; PEMSEA/COBSEA for standards

Source: *World Bank 2021; ADB, 2023; FAO 2024, 2025; FiA, 2023; FFI, 2020; PEMSEA, 2024; GEF, 2023.*

6.2.5 Governance Performance and Effectiveness

IWRM & transboundary cooperation. Cambodia's latest SDG 6 dashboard (Figure 6-1) shows **medium–high** implementation of Integrated Water Resources Management—**62% in 2023** across the four dimensions (enabling environment, institutions/participation, management instruments, financing), increased from 46% in 2017. This reflects solid frameworks but continuing **financing and sub-national capacity gaps**, especially for routine monitoring and compliance (UN-Water SDG 6 Data Portal, 2023).

Figure 6-1 Degree of integrated water resources management implementation (0-100) in Cambodia, progress over time, by dimension (DSG 6.5.1)

For SDG **6.5.2**, Figure 6-2 indicates that Cambodia reports **near-complete operational arrangements (98%)** for surface transboundary waters via Mekong cooperation mechanisms, indicating strong formal cooperation even as data interoperability and joint pollution control can be strengthened (UNECE/UN-Water, 2023).

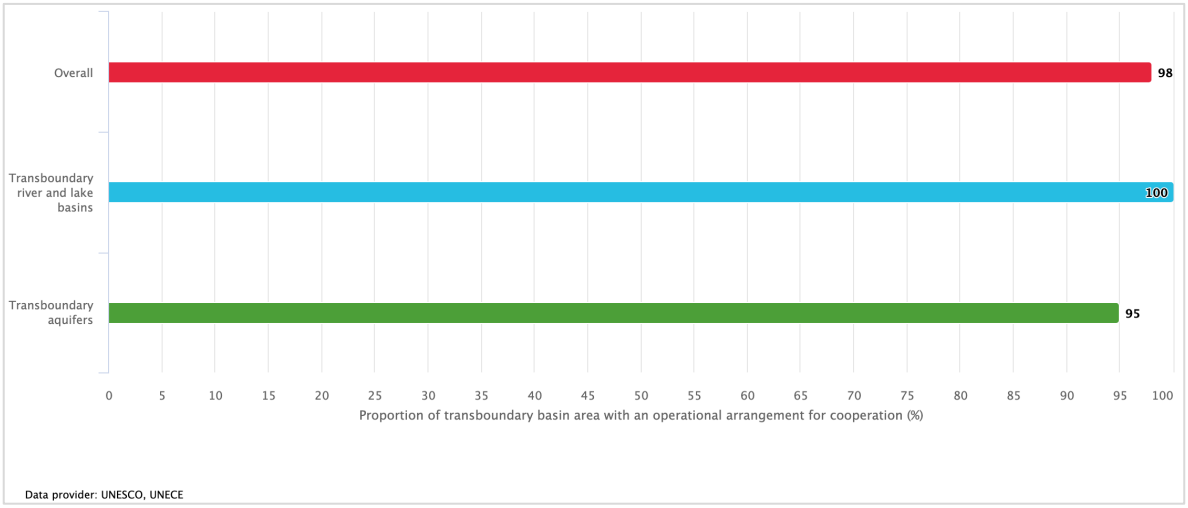

Figure 6-2 Proportion of transboundary basin area with an operational arrangement for water cooperation in Cambodia, progress over time, by component (DSG 6.5.2)

Marine protection and compliance: Cambodia's marine estate is centred on the Koh Rong MFMA (2016), Koh Rong MNP (2018) and key Ramsar/PA sites such as Koh Kapik and Peam Krasop. METT scores show gradual improvement, but effective coverage remains limited by gaps in patrol assets, prosecution follow-through and O&M budgets. FiA's monthly catch monitoring (since 2021) provides essential CPUE/effort/species/value data for EAFM, while participation in COBSEA's RAP-MALI improves policy coherence on marine litter, though port-reception and EPR pilots remain inconsistent.

Financing and instrument deployment: Institutions (NCSD/NCCMD/PCCMDs) and major programs (CAPFISH, ADB coastal fisheries, GoTFish, CamAdapt) provide important support, but operational budgets lag behind mandates. Conservation funding has grown but remains weighted toward freshwater; coastal enforcement and lab O&M remain under-resourced. Sites with strong NGO–community co-management perform better, but scaling requires predictable domestic finance, streamlined sanctioning and integrated data systems.

International environmental and governance benchmarks: Cambodia's 2024 Environmental Performance Index (EPI) ranks the country around 170th of 180, with a score of ~31, placing it in the lowest global tier (EPI, 2024). The World Bank Worldwide Governance Indicators (WGI) also point to systemic constraints: Government Effectiveness remains in the 10–13th percentile, Regulatory Quality in the 15–20th percentile, and Control of Corruption in the 5–10th percentile (WGI, 2024). These limitations affect the consistency of ICZM/MSP implementation, enforcement, and transparent decision-making in coastal development**.** See Annex 6-2 for more detail and explanatory notes.

6.3 Discussion and Conclusions

6.3.1 Risk assessment: Current governance capacity to engage stakeholders, reduce ecosystem stresses, improve/protect ecosystems, achieve socially just outcomes, and improve well-being

6.3.1.1 Governance Assessment

Cambodia's coastal–marine governance system is broadly established and increasingly participatory. National bodies (NCSD, NCCMD), sector ministries, provincial PCCMDs and community institutions (CFis/CPAs) are reinforced by strong NGO co-management (FFI, MCC, WEA, WCS). This aligns with the TDA–SAP distinction between *good governance* (institutions and participation) and *effective governance* (implementation and behaviour change). Using the Transboundary Waters Assessment Programme (TWGAP) Governance Architecture Assessment Framework, effectiveness is assessed against four outcome categories, as following:

a) Stakeholder engagement and compliance

Co-management arrangements supported by NGOs have increased patrol days, zoning, and community reporting in MFMA and MPA sites, in line with TWGAF's expectation that behaviour change is a precursor to stress reduction. CFis and CPAs provide formal spaces for local voice in rule-making and implementation, while PCCMDs offer a platform for inter-agency coordination at provincial level. However, the depth and consistency of engagement vary by site, depending heavily on project presence and NGO support.

b) Reduced stresses

The expansion of MFMAs and the Koh Rong MNP, together with FiA's landing-site monitoring of CPUE, effort, species and value since 2021, provides a foundation for ecosystem-based fisheries management. In MFMA sites, joint patrols, community reporting, no-take zones and gear rules are applied more consistently than in unmanaged areas. National anti-plastic campaigns have reduced plastic-bag use, and IWRM implementation reached 62% in 2023, with 98% of transboundary basin area under cooperation—signals of maturing water and pollution governance. However, wastewater and solid-waste services remain limited, and at-sea enforcement and monitoring continue to face chronic O&M budget constraints.

c) Improved ecosystems

Management Effectiveness Tracking Tool (METT) reviews for Koh Rong demonstrate stepwise gains in management performance and the roll-out of restoration pilots for seagrass and coral, and the MFMA network has expanded to Kep (2018) and Prek Kampong Smach (2022). Nonetheless, system-wide ecological recovery is still partial. Effective coverage of MPAs/MFMAs remains modest relative to the scale of pressures, prosecution follow-through is inconsistent, and proposed areas (Koh Sdach and Kampot MFMAs; Koh Kong Krao MNP concept) still require formal designation, adequate budgets, and sustained patrol capacity to achieve ecological objectives (World Bank, 2021; FFI, 2024).

d) Socially just solutions

Cambodia's co-management laws recognise CFis/CPAs with defined access and decision-making rights, and programmes such as CAPFISH, the ADB Sustainable Coastal & Marine Fisheries Project, and CamAdapt support livelihoods, hygiene/traceability, and climate

resilience. TWGAF, however, stresses that equity must be demonstrated, not assumed. Evidence points to uneven grievance handling and benefit-sharing in tourism and port developments, with needs for stronger gender-responsive livelihood support, transparent revenue-sharing, and accessible complaint mechanisms to sustain compliance incentives (FAO, 2024; ADB, 2023; ClientEarth, 2020).

e) Improved well-being

Poverty fell sharply pre-COVID (47.8% to 13.5% between 2007–2014; 33.8% → 17.8% between 2009–2019/20), yet the pandemic added ~2.8 percentage points, hitting tourism-dependent coastal areas hardest (World Bank, 2014; Karamba & Tong, 2022). IDPoor cash transfers cushioned impacts, but many coastal households remain vulnerable to fish-price volatility, climate hazards, and tourism cycles. Meanwhile, large-scale anti-plastic and clean-up campaigns (10–11 million participants) indicate strong public readiness for upstream pollution reforms that can enhance coastal health, livelihoods, and tourism prospects (MoE, 2023; UN-PAGE, 2025).

As part of the TWAP of LMEs in 2017 an assessment of transboundary governance architecture for the SCS and GoT LMEs was undertaken using the framework of completeness, integration and engagement (Table 6-3).

Table 6-3 TWAP Governance Architecture Assessment Framework

Risk Rank	Completeness Range	Integration Range	Engagement Range
Very Low	80-100%	0.8-1.0	80-100%
Low	60-80%	0.6 -0.8	60-80%
Medium	40-60%	0.4-0.6	40-60%
High	20-40%	0.2-0.4	20-40%
Very High	0-20%	0.0-0.2	0-20%

Source: *Fanning et al., 2017.*

A self-assessment for Cambodia, using the TWAP governance architecture framework (Fanning *et al* 2017), and drawing on the evidence and risk analysis presented above, was undertaken with the following results in Table 6-4 below:

Table 6-4 Cambodia's national governance architecture self-assessment

	Completeness	**Integration**	**Engagement**
Cambodia	55-60% (Medium-Low)	0.35-0.45 (High-Medium)	45-55% (Medium)

See Annex 6-3 *for more details and rational for Cambodia's TWAP Governance Scores*

6.3.1.6 Residual systematic risks

Cambodia's current governance capacity is **directionally strong but not yet sufficient** to fully deliver reduced stresses, resilient ecosystems, socially just outcomes and durable improvements in well-being. The main risks relate to:

(i) fragmented sea-use decisions pending adoption of the NCCMD marine sub-decree and operational marine spatial planning;

(ii) chronic under-financing of enforcement, monitoring, laboratories and O&M;

(iii) an incomplete national oil-spill preparedness system; and

(iv) pollution pressures—especially plastics and untreated wastewater—that continue to outpace local management capacity. Tackling these constraints is essential to move from well-designed frameworks to consistently effective coastal and marine governance.

6.3.2 Current governance capacity to respond to climate and major environmental changes, as well as population growth and demand

Cambodia's capacity to respond to climate change and rising environmental pressures is improving, with updated laws, monitoring systems and stronger regional cooperation. However, financing constraints, limited enforcement and incomplete marine planning continue to limit the shift from policy ambition to resilient, on-the-ground action.

6.3.2.1 Policy alignment and enabling instruments

Recent reforms provide a significantly stronger enabling environment for climate-responsive coastal management. The ***Code on Environment and Natural Resources*** *(2023)* consolidates EIA/SEA, compliance and access-to-information rules, while the *Circular Strategy for Environment (2023–2028)* and the *Cambodia Climate Change Strategic Plan 2024–2033*, aligned with *NDC 3.0*, commit the government to risk-informed planning, circular economy measures, and climate-adapted coastal development (NCSD, 2023; 2024). These instruments create a clearer policy pathway for integrating coastal resilience, wastewater management, mangrove restoration, and adaptation finance into national and provincial plans.

6.3.2.3 Marine-specific adaptive capacity

Adaptive capacity in marine systems has risen through (i) expansion of the MFMA/MPA network; (ii) FiA's standardized marine catch monitoring (since 2021) providing near-real-time CPUE, effort, species and value data; and (iii) Cambodia's engagement in COBSEA's RAP-MALI for marine-litter monitoring and upstream plastics reduction (FiA, 2023; UNEP/COBSEA, 2019–2024). These generate critical inputs for ecosystem-based and climate-responsive management. However, monitoring-to-action links remain weak. FiA landing-site data are not consistently used for stock assessments, adaptive harvest controls, or cumulative-impact thresholds under MSP. Enforcement across the MFMA/MPA system is limited—patrol effort, prosecution follow-through, and O&M budgets remain insufficient amid rising fishing effort and coastal development pressures.

6.3.2.4 Climate exposure and major environmental risks

Cambodia's coastal provinces face rising vulnerability to sea-level rise, storm surge, saline intrusion, and extreme rainfall events—pressures compounded by intensive port expansion, rapid tourism development, and growing urban wastewater loads (World Bank, 2021). The most acute readiness gap remains **oil-spill preparedness**: although a national contingency plan and dispersant policy have been drafted, they have not yet been formally adopted or funded. As tanker traffic and port throughput expand in Sihanoukville, this gap represents a critical shortfall in climate and disaster preparedness (IMO, 2023; ITOPF, 2019).

6.3.2.5 Population growth, economic expansion, and rising demand

Population growth, urbanization, and blue-economy investment are increasing pressures on coastal infrastructure, fisheries, and nearshore water quality. Coastal settlements continue to expand into hazard-prone areas; tourism hubs require rapidly increasing wastewater, solid-waste and port-reception capacities; and fishing effort intensity remains high despite declining CPUE for some nearshore species.

6.3.3 Strategies to enhance government responses to climate change and achieve sustainability of coastal and marine environments

a) Finalize and operationalize the foundational marine governance framework

Governance effectiveness requires a consistent, enforceable basis for marine decision-making. Priorities include adopting the NCCMD coastal and marine sub-decree to establish whole-of-sea coordination rules, clarify ministerial mandates, and formalize a national mechanism that aligns port development, fisheries management, conservation, aquaculture, and tourism. Marine Spatial Planning (MSP) for the EEZ should be operationalized through clear zoning, cumulative-impact thresholds, and integration of FiA monitoring with MoE EIA/SEA requirements. Domestic ratification of UNCLOS should anchor maritime zones and clarify obligations complementary to Cambodia's BBNJ ratification (2025), reducing fragmented sea-use decisions.

b) Scale effective MPAs/MFMAs and ecosystem-based fisheries management (EAFM)

MFMA and marine park coverage has expanded (e.g., Koh Rong, Kep, Prek Kampong Smach), but effectiveness remains constrained by limited budgets and enforcement capacity. Priorities include formalizing proposed MFMAs (Koh Sdach and Kampot) and advancing the Koh Kong Krao MNP concept, while securing sustained patrol and O&M financing through public budgets, trust funds, and blended finance (e.g., CAPFISH, ADB). SMART/Kobo monitoring should be embedded into adaptive EAFM controls—seasonal closures, gear limits, and no-take replenishment zones—and restoration pilots (seagrass, coral) scaled with livelihood support and tourism partnerships.

c) Implement pollution reduction and circular economy measures

Pollution continues to limit ecosystem recovery, requiring measures that reduce leakage at source and strengthen municipal systems. RAP MALI should be operationalized through national Extended Producer Responsibility (EPR) pilots for plastics, tourism packaging, and port-reception facilities, alongside stronger wastewater and solid-waste systems in coastal towns through green/blue bonds, PPPs, and municipal investment. Circular economy actions under the Circular Strategy for Environment (2023–2028) should be mainstreamed, building on strong social mobilization (10–11 million participants in clean-up campaigns). Port environmental management should be upgraded through no-discharge rules, oily-waste reception, and green logistics.

d) Strengthen risk management and oil-spill preparedness

Rising tanker traffic and port expansion in Sihanoukville increase the need for a fully functional national oil-spill system. Priorities include promulgating the National Oil Spill Contingency Plan and dispersant policies, establishing a national sensitivity atlas with tiered response capacity and equipment caches, and creating a dedicated financing mechanism using levies and joint industry arrangements. Port, fisheries, tourism, and protected-area authorities should conduct joint exercises under GI-SEA and Gulf of Thailand frameworks.

e) Finance the blue transition and resilience measures

Core functions—enforcement, O&M, laboratories, and monitoring—remain underfunded, requiring scaled and diversified finance. Options include sovereign or municipal blue/green bonds enabled by the Cambodian Sustainable Finance Principles and NBC–IFC taxonomy,

and use of PPP Law (2021) tools, including the VGF, to finance resilient wastewater systems, green port infrastructure, mangrove buffers, and cold-chain upgrades. A Coastal Co-management Fund could disburse against MFMA compliance indicators, while climate-finance access expands through NDC pipelines and multi-donor trust funds.

f) Strengthen marine data systems, transparency, and evidence-based decision-making

Effective governance requires consistent use of credible data across agencies. Priorities include institutionalizing open marine data (CPUE, effort, species, bycatch, plastics, HABs) across FiA, MoE, NCCMD, and PCCMDs; integrating SMART/Kobo streams into FiA bulletins and MoE dashboards; and linking land–sea datasets within IWRM and MSP frameworks to guide hazard mapping, zoning, and policy cycles. Periodic review and evaluation, consistent with TWGAF and SDS-SEA guidance, should track governance improvement over time.

6.3.4 Recommended priority actions including regional cooperation

6.3.4.1 Near-term priorities (1–2 years)

a) Adopt core marine governance instruments

Cambodia should approve the NCCMD marine sub-decree, adopt and fund the National Oil Spill Contingency Plan, and launch national port-waste reception standards alongside enforceable no-discharge rules.

b) Strengthen fisheries management and enforcement

FiA and provincial authorities should scale catch-monitoring data into harvest-control pilots (e.g., Koh Kong, Kampot), while the Royal Government and partners should increase domestic support for CFi/CPA co-enforcement and patrols and resource no-take replenishment zones and targeted gear restrictions in priority MFMAs.

c) Reduce pollution pressures

Cambodia, municipalities, and the private sector should launch EPR pilots for plastics with COBSEA support, sustain national anti-plastic campaigns linked to municipal KPIs for waste reduction, and upgrade wastewater management for key coastal towns through PPPs and blue bonds.

d) Establish a Blue Public Investment Program (BPIP)

The Ministry of Economy and Finance, together with sector ministries, should package priority investments—Sihanoukville port decarbonization, coastal wastewater and sludge systems, mangrove restoration corridors, and cold-chain/landing-site modernization—using the PPP Law's VGF and CGCC guarantees.

6.3.4.2 Medium-term priorities (3–5 years)

a) Operationalize marine spatial planning

NCCMD, MoE, FiA/MAFF, and relevant ministries should finalize MSP zoning for the EEZ, integrate cumulative-impact thresholds and climate-risk layers, and harmonize MSP with tourism development, port master plans, and MFMA networks.

b) Expand and strengthen the MPA/MFMA system

MoE and FiA, with provincial administrations, should formalize Koh Sdach MFMA, Kampot MFMA, and Koh Kong Krao MNP; they should also ensure sustained O&M and patrol budgets and routine ecological monitoring, and embed community benefit-sharing agreements and accessible grievance mechanisms.

c) Strengthen climate adaptation systems

NCSD/MoE and subnational authorities should integrate NDC 3.0, CCCSP 2024–2033, and circular-economy commitments into provincial plans, expand nature-based solutions (mangroves, dunes, reefs) for coastal protection, and strengthen provincial disaster management systems and early-warning capacity.

6.3.4.3 Regional and transboundary cooperation

a) Strengthen Gulf of Thailand coordination

Cambodia, Viet Nam, and Thailand should conduct joint oil-spill exercises and share sensitivity mapping, strengthen transboundary stock assessments under GoTFish, and cooperate on marine-litter source reduction and monitoring (RAP-MALI).

c) Expand Mekong transboundary water governance

Cambodia and Mekong partners should improve joint water-quality monitoring and pollution data exchange, and align coastal hazard and watershed sediment management under SDG 6.5.2 frameworks.

c) Align with emerging global frameworks

Cambodia should prepare for BBNJ implementation (area-based management tools, EIAs, genetic-resource benefit-sharing), peer-review MSP and MPA expansion via PEMSEA's SDS-SEA mechanism, and coordinate with IMO to strengthen MARPOL implementation and port state control capacity.

6.4 Methodology and analysis

This section summarizes the framework, evidence base, and steps used to assess governance architecture, processes, participation, social justice, and effectiveness, drawing on TWAP, Mahon et al. (2017), and the National Governance TDA Guidance.

6.4.1 Analytical Framework

The assessment applied two complementary lenses: **good governance** (institutional arrangements, mandates, integration, transparency, and participation) and **effective governance** (stress reduction, ecosystem condition, social justice, and adaptation outcomes). Indicators were organized into five domains aligned with TWAP: **economic/policy drivers**, **institutional setting**, **legal/policy setting**, **stakeholders**, and **governance performance**.

6.4.2 Data Collection

Evidence was compiled from three streams. **Quantitative indicators** covered macroeconomic trends, sectoral finance, SDG 6.5.1/6.5.2, MFMA/MPA metrics, regional engagement, and co-management coverage. An **institutional and legal review** examined laws and decrees, project documents, NGO assessments, grievance cases, MSP drafts, and participation in MEAs. **Stakeholder evidence** drew on community and NGO patrol logs,

provincial inputs, academic partner data, site observations, and compliance reviews of ports and operators.

6.4.3 Assessment Steps

The analysis: (1) classified indicators across the five governance domains; (2) reviewed governance architecture and processes, including mandates, integration, policy-cycle completeness, and adequacy of budgets, O&M, and enforcement; (3) assessed effectiveness using enforcement effort, stress-reduction signals, ecosystem proxies (e.g., CPUE, METT, restoration), and social-justice and well-being outcomes; and (4) evaluated regional alignment against SDS-SEA, RAP-MALI, ASEAN protocols, Gulf of Thailand cooperation, and emerging obligations under MARPOL and BBNJ.

6.4.4 Synthesis

The combined evidence identified key **strengths** (updated laws and institutions, growing monitoring capacity, and regional engagement), **weaknesses** (limited oil-spill readiness, chronic under-financing of enforcement/O&M, and incomplete MSP), **risks** (fragmented mandates and weak data–decision feedback loops), and **opportunities** (MSP expansion, EPR mechanisms, blue finance, and strengthened co-management funding).

Glossary

Term	Definition
Adaptive management	A management approach that uses monitoring and learning to adjust policies and actions over time.
Blue economy	Economic activities linked to oceans and coasts that aim to be environmentally sustainable and socially inclusive (e.g., fisheries, tourism, ports).
Blue/green finance	Financial instruments and investments that support environmental outcomes, including coastal resilience, pollution reduction, and ecosystem protection.
Bond guarantee	A mechanism that reduces investor risk and borrowing costs by guaranteeing repayment (often used to mobilize private capital).
Capacity (institutional/operational)	The staff, skills, equipment, systems, and budgets needed to plan, monitor, enforce, and deliver services effectively.
Circular economy	A system that reduces waste and pollution by designing products and materials for reuse, recycling, and recovery.
Co-management	Shared governance where government and communities jointly manage resources, set rules, monitor compliance, and share benefits.
Compliance	The extent to which individuals and organizations follow laws, permits, and management rules.
Cumulative impacts	Combined effects of multiple activities and pressures over time (e.g., ports, fishing, dredging, wastewater, climate stress) that together degrade ecosystems.
Ecosystem-based adaptation (EbA)	Using ecosystems (mangroves, reefs, dunes, seagrass) to reduce climate risks while providing biodiversity and livelihood benefits.
Ecosystem services	Benefits people receive from ecosystems, such as fisheries production, tourism value, carbon storage, and coastal protection.
Ecosystem Approach to Fisheries Management (EAFM)	Fisheries management that accounts for habitats, food webs, and ecosystem limits in addition to catches and effort.
Early warning system	A system that monitors hazards and provides timely alerts to reduce harm through preparedness and response actions.
Enforcement	Actions taken to ensure compliance with laws and rules (patrols, inspections, penalties, prosecutions).
Extended Producer Responsibility (EPR)	Policy approach where producers share responsibility for products after use, supporting collection, recycling, and waste reduction (e.g., plastics).
Environmental Impact Assessment (EIA)	Process to identify and mitigate environmental risks of a project before approval, including monitoring requirements.
Gear restrictions	Rules that limit fishing gear types, mesh sizes, or methods to reduce habitat damage and juvenile/bycatch mortality.
Governance effectiveness	The degree to which institutions and rules reduce pressures, improve ecosystem condition, and deliver equitable outcomes.
Grievance mechanism	A formal process for communities and stakeholders to raise concerns and seek remedies related to projects or management actions.
Hazard mapping	Spatial identification of areas exposed to hazards (flooding, erosion, storm surge) used to guide zoning and investment.
Integrated Coastal Zone Management (ICZM)	Coordinated planning and management across sectors and agencies to reduce conflicts and cumulative impacts in coastal areas.
Integrated Water Resources Management (IWRM)	Coordinated management of water, land, and related resources to maximize social and economic benefits without harming ecosystems.
Marine litter	Solid waste in marine and coastal environments, including plastics and fishing gear, that harms ecosystems and livelihoods.

Marine Spatial Planning (MSP)	A public planning process to allocate marine space among uses (conservation, fisheries, ports, tourism) to reduce conflicts and manage impacts.
Monitoring	Regular collection of data to track conditions, compliance, and outcomes (ecological, social, and institutional).
Monitoring, Control and Surveillance (MCS)	Fisheries enforcement system combining monitoring (data), control (licensing/rules), and surveillance (patrols/tracking).
Nature-based solutions (NbS)	Actions that protect, restore, or manage ecosystems to address societal challenges (risk reduction, water quality) while benefiting biodiversity.
No-discharge rule	Regulation prohibiting discharge of wastes or oily water into coastal waters, often enforced through port controls.
No-take zone	Area where extraction (e.g., fishing) is prohibited to allow stock and habitat recovery.
Oil-spill preparedness	Policies, plans, equipment, training, and coordination needed to prevent and respond to oil spills effectively.
Operations and maintenance (O&M)	Routine funding and activities needed to keep infrastructure and systems functioning (e.g., patrols, labs, wastewater systems).
Other Effective Area-Based Conservation Measure (OECM)	A geographically defined area managed to deliver long-term biodiversity outcomes, even if not formally designated as a protected area.
Port reception facility	Facilities and services for ships to dispose of waste and oily residues legally and safely at ports.
Public–Private Partnership (PPP)	A contractual arrangement where government and private sector share roles and risks to deliver infrastructure or services.
Risk screening	A rapid assessment to identify key hazards, exposure, vulnerability, and priority mitigation measures for projects or sites.
Social inclusion	Ensuring different groups (women, migrants, vulnerable households) can participate in decisions and benefit fairly from policies and projects.
Strategic Environmental Assessment (SEA)	Assessment of environmental impacts of policies, plans, or programmes, including cumulative effects and alternatives.
Sustainable financing	Reliable funding mechanisms that can cover recurring costs (O&M, enforcement, monitoring) over the long term.
Transboundary cooperation	Collaboration among countries to manage shared resources and risks (shared fish stocks, pollution, oil spills, river flows).
Transparency	Openness in decision-making, data access, and reporting to improve accountability and trust.
Viability Gap Fund (VGF)	A type of state support, which is a direct subsidy on capital expenditures of a PPP Project in order to increase the financial viability of the project for the private partner.

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Annex 6

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List of Acronyms

ABC	Association of Banks in Cambodia
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BBNJ	Biodiversity Beyond National Jurisdiction (High Seas Treaty)
CAPFISH	Cambodia Programme for Sustainable and Inclusive Growth in the Fisheries Sector
CBD	Convention on Biological Diversity
CDC	Council for the Development of Cambodia
CGCC	Credit Guarantee Corporation of Cambodia
CFI / CFi	Community Fisheries
CPA	Community Protected Area
CPUE	Catch Per Unit Effort
CSFP	Cambodian Sustainable Finance Principles
DCZMC	Department of Coastal Zone and Marine Conservation (MoE)
DFC	Department of Fisheries Conservation (FiA/MAFF)
EAFM	Ecosystem Approach to Fisheries Management
EIA	Environmental Impact Assessment
EEZ	Exclusive Economic Zone
EPR	Extended Producer Responsibility
FAO	Food and Agriculture Organization of the United Nations
FiA	Fisheries Administration (MAFF)
FDI	Foreign Direct Investment
FFI	Fauna & Flora International
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GEF	Global Environment Facility
GoTFish	Ecosystem-Approach Fisheries Project for the Gulf of Thailand
ICM / ICZM	Integrated Coastal Management / Integrated Coastal Zone Management
IDPoor	Identification of Poor Households Programme
IFC	International Finance Corporation
IMO	International Maritime Organization
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
MAFF	Ministry of Agriculture, Forestry and Fisheries
MEF	Ministry of Economy and Finance
METT	Management Effectiveness Tracking Tool
MFMA	Marine Fisheries Management Area
MLMUPC	Ministry of Land Management, Urban Planning and Construction
MME	Ministry of Mines and Energy
MNP	Marine National Park
MoE	Ministry of Environment
MoI	Ministry of Interior
MoT	Ministry of Tourism
MPA	Marine Protected Area
MPWT	Ministry of Public Works and Transport

MSP	Marine Spatial Planning
NBC	National Bank of Cambodia
NCSD	National Council for Sustainable Development
NCCMD	National Committee on Coastal Area Management and Development
NDC	Nationally Determined Contribution (Climate)
NGO	Non-Governmental Organization
NPASMP	National Protected Area Strategic Management Plan
O&M	Operations and Maintenance
ODC	Open Development Cambodia
PA	Protected Area
PCCMD	Provincial Committee for Coastal Management and Development
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PPP	Public–Private Partnership
POP	Persistent Organic Pollutant
RAP-MALI	Regional Action Plan on Marine Litter (COBSEA)
RGC	Royal Government of Cambodia
RIS	Ramsar Information Sheet
RUA	Royal University of Agriculture
RUPP	Royal University of Phnom Penh
SDG	Sustainable Development Goal
SEA	Strategic Environmental Assessment
SEZ	Special Economic Zone
SMART	Spatial Monitoring and Reporting Tool
TDA	Transboundary Diagnostic Analysis
TWGAF	Transboundary Waters Governance Assessment Framework
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
VGF	Viability Gap Fund
WEA	Wild Earth Allies
WCS	Wildlife Conservation Society
EPI	Environmental Performance Index
WGI	World Bank Worldwide Governance Indicators (

Annex 6-1 Data Sources, Metadata, Assessment Method, and Explanatory Text

A. Economic and Policy Drivers

This annex summarizes the macro-economic and policy conditions that shape pressures on Cambodia's coastal and marine environment as well as the country's capacity to respond. It draws on long-term economic indicators from the World Bank WDI (2000–2024), national budget documents, and sustainable-finance initiatives to understand how GDP growth, investment flows, and fiscal space interact with coastal development trajectories. Particular attention is given to **gross fixed capital formation (GFCF)** and **foreign direct investment**

(FDI), which influence construction-driven pressures in coastal zones, including SEZ expansion, port development, and tourism infrastructure.

The annex also reviews Cambodia's **public financial architecture** for environmental governance, including annual budget allocations to fisheries law enforcement, protected areas, and biodiversity conservation. These data help determine whether current fiscal commitments are adequate relative to the scale of ecological degradation. The **MEF PPP pipeline** is evaluated to understand the alignment of proposed and ongoing public–private partnerships with ICZM, marine spatial planning, EIA/SEA requirements, and sustainability safeguards.

Finally, the annex integrates poverty headcount data and vulnerability metrics to identify how macroeconomic trends translate into distributional outcomes for coastal households. This is essential for assessing whether economic growth is increasing resilience or reinforcing livelihood precarity. Together, the indicators provide an evidence base for assessing Cambodia's long-term readiness for **blue-economy investment**, sustainable financing instruments, and equitable coastal development.

Annex Table 6-1 Economic and Policy Drivers: Data Sources, Metadata, and Assessment Method

Category	Details
Data Sources	• World Bank WDI (GDP, GFCF, FDI, CA balance, inflation, unemployment) • National budget documents (biodiversity, fisheries enforcement, NPASMP costing) • MEF PPP pipeline (solicited/unsolicited projects, VGF status) • Sustainable finance initiatives (CSFP, NBC–IFC taxonomy, CGCC guarantees)
Metadata	• GDP (current US$, annual % change), 2000–2024 • FDI inflows (current US$ and % GDP) • GFCF (current US$ and % GDP) • Poverty headcount (national poverty lines and US$1.90/day) • Budget allocations to fisheries, enforcement, and PA systems
Assessment Method	• Evaluate macroeconomic conditions shaping coastal development pressures. • Determine fiscal space and readiness for blue-economy financing. • Assess alignment of PPP projects with ICZM, MSP, and EIA/SEA obligations. • Link poverty and vulnerability data to coastal resilience and social-justice outcomes.

Cambodia's macroeconomic drivers—strong GDP growth, high FDI concentration in coastal SEZs, and rising GFCF—continue to intensify land-use change, port expansion, and tourism pressure in coastal provinces. Limited fiscal space and modest allocations for fisheries and PA management constrain the transition toward sustainable blue-economy investment, while persistent poverty pockets reduce household adaptive capacity.

Annex Table 6-2 Summary of Cambodia's key economic indicators (2020-most recent)

Year	GDP (current US$) - Billions	GDP (annual % of change)	GDP per capital (current US$)	Inflation rate, (average consumer prices)	Unemployment, total (% of total labor force) (modeled ILO estimate)	Current account balance (% of GDP)
2000	3.69	9.99	296.43	-0.79	0.74	-3.68
2001	4.15	7.39	327.50	-0.60	0.77	-2.12
2002	4.50	6.27	350.15	0.21	0.85	-2.38
2003	5.05	10.28	386.69	0.94	0.91	-4.63
2004	5.88	9.46	444.20	4.32	1.00	-3.11

2005	7.07	13.30	525.80	6.62	1.06	-4.34
2006	8.35	10.94	612.25	5.81	1.15	-2.80
2007	10.13	10.40	731.69	8.71	1.26	-4.18
2008	12.17	7.48	866.28	24.10	0.83	-6.74
2009	12.50	4.07	875.75	-1.24	0.58	-5.93
2010	13.81	5.08	952.27	4.00	0.77	-7.10
2011	16.03	7.29	1088.98	5.48	0.58	-6.40
2012	17.83	7.65	1192.80	2.93	0.50	-6.80
2013	19.81	7.86	1305.66	2.94	0.44	-6.54
2014	22.04	8.00	1431.56	3.86	0.69	-6.55
2015	24.17	7.21	1547.32	1.22	0.39	-6.61
2016	26.56	7.91	1675.20	3.02	0.72	-6.53
2017	29.36	8.08	1826.35	2.91	0.14	-6.16
2018	33.15	8.78	2036.67	2.46	0.13	-8.74
2019	36.69	7.94	2225.88	1.94	0.12	-8.00
2020	34.82	-3.56	2081.74	2.94	0.17	-1.00
2021	36.79	3.09	2167.40	2.92	0.40	-29.61
2022	39.99	5.13	2325.03	5.34	0.23	-18.96
2023	42.34	5.01	2429.75	2.13	0.23	1.30
2024	46.35	6.02	2627.88	…	0.27	0.48
2025	…	4.00	…	…	…	…

Sources: World Bank Group, Cambodia Data (WDI). Accessed 2025.

Annex Table 6-3 PPP Projects (Solicited & Unsolicited Projects)

Project title	Sector	Implement agency	Location	Cost (USD)	Status
A) Solicited Projects					
Agro-Industrial Park (AIP) in Kratie Province	Agro-Industrial Park	MEF	Kratié	170 million	Phase II
Establishment of New Ratanakiri Airport	Aviation	State Secretariat of Civil Aviation	Ratanakiri	96 million	Phase I
Establishment of Wholesale Market in Cambodia	Trade	Ministry of Commerce	Cambodia	-	Phase I
Mekong River Waterway Improvement Project from Kampong Cham to Kratie	Transportation	MPWT	Kratié	-	Phase I
Developing a Chhlong Tourism Port	Tourism	MPWT	Kratié	-	Phase I
Developing a Multi-Purpose Port	Transportation	Phnom Penh Autonomous Port	Kratié	-	Phase I
Green Special Economic Zone	Special Economic Zone	MEF	Cambodia	400 million	Phase II
Sihanoukville Smart Parking	Transpotation	Preah Sihanouk	Preah Sihanouk	11.8 million	Phase III

		Administration			
Kampot International Tourism Port	Tourism	MPWT	Kampot	9.27 million	Phase V
Electric Buses in Siem Reap City	Transportation	MPWT	Siem Reap	26.8 million	Phase II
Prey Kabas Irrigation Systems	Irrigation System	Ministry of Water Resources and Meteorology	Kandal, Takeo	11.4 million	Phase II
Sihanoukville Logistics Complex	Logistics	MPWT	Preah Sihanouk	264 million	Phase II
B) Unsolicited Project					
Funan Techo Canal	Transportation	MPWT	Kandal, Takeo, Kampot, Kep	1,156 million	Phase V
Phnom Penh-Siem Reap-Poi Pet Expressway	Transportation	MPWT	Siem Reap, Banteay Meanchey	-	Phase III
Provision of Aviation Security Services	Aviation	State Secretariat of Civil Aviation	Cambodia	5 million	Phase V
Phnom Penh Logistics Complex	Logistics	MPWT	Phnom Penh	340 million	Phase IV
Phnom Penh-Bavet Expressway	Transportation	MPWT	Kandal, Prey Veng, Svay Rieng	1,380 million	Phase V
Development of New Mondulkiri Airport	Aviation	State Secretariat of Civil Aviation	Mondulkiri	-	Phase III
Phnom Penh-Sihanoukville Expressway	Transportation	MPWT	Kandal, Kampong Speu, Koh Kong, Preah Sihanouk	1,897 million	Phase V

Source: General Department of Public-Private Partnerships (GDPPP)/ MEF. https://ppp.mef.gov.kh/projects/solicited-projects. **Note:** *Phase I: Project Identification and Selection; Phase II: Project Preparation and Appraisal Phase III: Project Approval; Phase IV: Contracting Phase V: Management of PPP Contract.*

C. Institutional Setting

This annex maps the institutional architecture governing Cambodia's coastal and marine environment. It compiles the mandates of national bodies—such as NCSD, MoE, FiA/MAFF, MPWT, MLMUPC, MME, and MoT—through relevant Royal Decrees and sectoral laws. The analysis assesses whether existing institutional arrangements collectively cover the full range of land–sea interface issues, including fisheries, biodiversity, pollution control, maritime transport, land-use planning, and disaster preparedness.

A second dimension evaluates the **degree of coordination**, both vertical (national–provincial–local) and lateral (across sectors). SDG indicators 6.5.1 and 6.5.2 provide benchmarks of integrated water resources management and transboundary cooperation. The annex also examines key regional platforms (COBSEA, PEMSEA/SDS-SEA, ASEAN DRR) to understand Cambodia's participation in joint planning, marine litter action, and oil-spill contingency efforts.

Operational capacity is assessed using FiA and PCCMD monitoring systems, patrol logs, MPA/ Marine Fisheries Management Area (MFMA) management data, and laboratory/equipment inventories. These indicators help clarify whether institutions have the

financial, technical, and human resources necessary for effective coastal governance. The annex highlights remaining gaps, including limited MSP formalization, oil-spill response readiness, data integration, and sustained O&M funding.

Annex Table 6-4 Institutional setting: data sources, metadata, and assessment method

Category	Details
Data Sources	• NCCMD Royal Decree (2012); NCSD Royal Decree (2015) • Line ministry mandates (MoE, FiA/MAFF, MPWT, MME, MoT, MLMUPC) • SDG 6.5.1 (IWRM 62% in 2023); SDG 6.5.2 (98% transboundary arrangements) • Regional platforms: COBSEA, SDS-SEA/PEMSEA, ASEAN DRR • FiA monitoring systems and PCCMD operational data
Metadata	• Institutional mandates and degree of formalization • Existence of vertical and lateral coordination mechanisms • Presence of monitoring systems (catch data, patrol logs, MPA/MFMA systems)
Assessment Method	• Determine whether institutions cover all coastal–marine governance functions. • Assess vertical (local–provincial–national) and lateral (sectoral) integration. • Evaluate operational readiness (financing, O&M, patrol assets, labs). • Identify gaps in oil-spill contingency planning and MSP formalization.

The institutional landscape covers most marine–coastal issues but remains weakly integrated, with significant coordination gaps between national, provincial, and community levels. Operational readiness is uneven: FiA and MoE have structured mandates but lack sufficient financing, O&M budgets, patrol assets, and laboratory capacity to deliver consistent enforcement and monitoring across all coastal provinces.

C. Legal and Policy Setting

This annex reviews Cambodia's legal and policy frameworks governing environmental protection, natural resources management, climate change, and coastal development. It maps both international commitments (Basel, Stockholm, CBD, CITES, Ramsar, UNFCCC/Paris, BBNJ) and domestic legal instruments (Environment Code 2023, Fisheries Law, Protected Areas Law, Water Law, Land Law). The analysis clarifies ratification status, reporting obligations, and the degree of legal alignment with global standards.

A central focus is whether Cambodia's laws enable **ecosystem-based management (EBM)**, **marine spatial planning (MSP)**, and integrated land–sea approaches. This includes examining the completeness of policy cycles—from data collection and decision-making to implementation and review—and the effectiveness of key implementing regulations such as the EIA/SEA framework and coastal development circulars.

The annex also evaluates the enforcement architecture: penalties and sanctions, licensing procedures, monitoring responsibilities, and the institutional ability to apply laws in practice. This helps identify gaps where legal instruments exist but lack operational mechanisms, or where emerging issues (e.g., marine litter, climate resilience, offshore activities, oil-spill responsibilities) are not yet fully covered.

Annex Table 6-5 Legal and policy setting: data sources, metadata, and assessment method

Category	Details
Data Sources	• International conventions: Basel, Rotterdam, Stockholm, CBD, CITES, UNFCCC, Kyoto, Paris, Ramsar, BBNJ • Domestic laws: Environment Code (2023), Fisheries Law, Protected Areas Law, Water Law, Land Law • National plans: CCCSP 2024–2033, Circular Strategy on Environment, NPASMP, fisheries strategies

	• EIA/SEA frameworks; Circular No. 01/2012 (coastal development)
Metadata	• Ratification status and reporting obligations • Sectoral legislation and implementing regulations • Degree of policy-cycle completeness (data → decision → implementation → review)
Assessment Method	• Review alignment of domestic law with international commitments. • Assess whether legislation enables EBM, MSP, and integrated coastal management. • Evaluate strength of enforcement mechanisms and regulatory tools. • Confirm regularity and effectiveness of policy reviews.

Cambodia has ratified most major environmental conventions and updated key domestic laws (Environment Code 2023, PA Law), but the enabling regulations and enforcement mechanisms needed for ecosystem-based management and MSP remain only partially implemented. Policy-cycle reviews are irregular, and areas such as marine litter, coastal zone planning, offshore activities, and oil-spill liability require clearer legal provisions and operational guidance.

Annex Table 6-6 Coastal–marine related legal and policy frameworks

Instrument	Status (year)	Lead / Competent Authority	Scope & relevance to coastal–marine	Implementation /notes
A) International Conventions & Agreements				
Basel Convention	Party (2001)	MoE (hazardous waste); Customs	Control of transboundary movement/disposal of hazardous waste; prevents coastal dumping/legacy contamination	National EIA/permits reference Basel lists; supports port & SEZ waste controls.
Rotterdam (PIC)	Party (2013)	MoE; MAFF	Prior informed consent for hazardous chemicals/pesticides that reach coasts via rivers & cities	Underpins pesticide/chemical import control and coastal run-off management.
Stockholm (POPs)	Party (2006)	MoE	Phase-out of POPs that bioaccumulate in marine food webs	National plans target legacy POPs; relevance to seafood safety.
CBD	Party (1995)	MoE/NCSD	National biodiversity strategies, PA systems, ABS; applies to reefs, seagrass, mangroves	Provides policy basis for MPAs & species measures.
CITES	Party (1997)	MAFF/FiA; Customs	Regulates trade in listed marine species (e.g., sharks, seahorses)	Permits & seizures guide; complements MFMA enforcement.
UNFCCC & Paris	Party (1995); Party (2017)	NCSD/MoE	Climate mitigation/adaptation; coastal resilience finance	Frames NDCs; enables coastal NbS & resilient ports investment.
Kyoto Protocol	Party (2002)	NCSD/MoE	GHG commitments (legacy)	Historical context for sector MRV.
Ramsar	Party (1999)	MoE	Wetlands of Intl. Importance (e.g., Koh Kapik)	Legal hook for mangrove conservation and restoration.
UNCLOS	Signature (1983); domestic ratification incomplete	MFAIC with line ministries	Maritime zones/rights, marine environment obligations	Legal gap noted in diagnostics; priority for completion.
BBNJ (High Seas Treaty)	Signed 9 Jun 2025; Ratified 6 Sep 2025	MFAIC/NCSD/MoE	ABNJ area-based tools, EIA, MGR benefit sharing	Signals global ocean governance engagement.
B) Regional Cooperation & Frameworks				

PEMSEA SDS-SEA & ICM	Ongoing program	MoE/PEMSEA Nat'l Focal	ICM across entire 435-km coastline; SDS-SEA 2023–2027 priorities (pollution, biodiversity, climate)	Platform for MSP/ICM peer support & training.
COBSEA RAP-MALI	Regional action plan (2019–)	MoE/NCSD	Marine litter prevention, control, cooperation	Aligns with national anti-plastic campaigns; port reception.
COBSEA Marine & Coastal Ecosystems Framework / Strategic Directions 2023–27	Guidance & workplan	MoE/line agencies	Ecosystem conservation, governance, cross-cutting enablers	Reference for regional best practice & projects.
Gulf of Thailand Oil Spill Framework	Cooperative mechanism	MPWT (competent authority)	Joint preparedness & response	Complements national contingency plan (draft).
ASEAN MoU on Joint Oil Spill Preparedness & Response (2014)	ASEAN mechanism	MPWT	Regional mutual aid and drills	Supports tiered response readiness.
C) National Laws & Core Regulations				
Code on Environment & Natural Resources	In force (2023)	MoE	Modernizes EIA/SEA, participation, compliance; cross-sector environmental governance	Foundational for MSP, marine pollution control, disclosure.
Law on Fisheries	In force (2006; with later amendment)	MAFF/FiA	Fisheries management; CFis; MFMAs; enforcement	Legal basis for MFMA network & co-management.
Protected Areas Law	In force (2008)	MoE	PA system, zoning, management	Applied to Koh Rong MNP & coastal PAs.
Water Resources Law	In force (2007)	MOWRAM	Basin/IWRM principles affecting land–sea flows	Links to SDG 6.5.1 progress.
Forestry Law	In force (2002)	MAFF/FA	Mangrove/forest governance	Relevant to coastal mangrove belts.
Land Law	In force (2001)	MLMUPC	Tenure/registration incl. coastal lands	Interface with PA/MFMA zoning & concessions.
Royal Decree – NCCMD	In force (2012)	MLMUPC (Chair)	National coastal coordination/ICM	Sub-decree under preparation to extend to marine waters.
Royal Decree – NCSD	In force (2015)	NCSD	Cross-gov't sustainability & reporting	Coordinates NDC/NBSAP and SDG reporting.
D) Site-Specific Marine/Coastal Instruments (EAFM/MPA)				
Koh Rong Archipelago MFMA	Prakas No. 364 (2016)	FiA/MAFF	First large MFMA (~405 km²) around Koh Rong/Samloem	Co-management; basis for gear/zone controls.
Koh Rong Marine National Park	Sub-Decree No. 14 (2018)	MoE	52,498 ha (inshore + offshore)	Active management; METT improving.
Kep: Koh Po & Koh Tonsay MFMA	Prakas (2018)	FiA	Habitat & fisheries protection	Supports small-scale fisheries & tourism.
Prek Kampong Smach MFMA (P. Sihanouk)	Prakas (2022)	FiA	10,923 ha	Expands coastal coverage; needs enforcement resourcing.
Peam Krasop Wildlife Sanctuary zoning	Sub-Decree 179 (2011)	MoE	Zonation (core, conservation, SUZ, community)	Mangrove nursery protection and community use.
Koh Kapik & Associated Islets	Ramsar Site (1999)	MoE	12,000 ha mangrove-delta	International protection & restoration anchor.
Proposed: Koh Sdach MFMA	In designation process	FiA + FFI	16,158 ha biodiversity & fishing grounds	Requires formal gazettal & budget.
Proposed: Kampot MFMA	Concept with WEA/MCC/CFis	FiA + partners	Seagrass, coral, marine mammals	Threats: reclamation, IUU; proposal under review.

Proposed: Koh Kong Krao MNP	Concept	MoE + FFI	Largest Cambodian island & coastal complex	Studies commissioned; progress slow.
E) Policies, Plans & Circulars				
National Protected Area Strategic Management Plan	2017–2031	MoE	System-wide PA management targets (incl. coastal parks)	Costed actions; needs sustained financing.
Strategic Planning Framework for Fisheries (update)	2015–2024	FiA/MAFF	Sector strategy incl. conservation, CFis, value chains	Basis for MFMA rollout & enforcement priorities.
Action Plan for Sea Turtles	2016–2026	FiA/partners	Species & habitat protection in coastal waters	Education, by-catch mitigation.
Circular No. 01 on Coastal Development	2012	RGC (MLMUPC-led)	Principles for coordinated coastal planning	Guidance without strong enforcement "teeth."
Circular Strategy on Environment	2023–2028	NCSD/MoE	Cross-gov't environmental priorities; circular economy	Aligns with Pentagonal Strategy Phase 1.
Cambodia Climate Change Strategic Plan	2024–2033	NCSD/MoE	Adaptation/mitigation incl. coastal resilience	Framework for NDC3.0 delivery.
NDC 3.0	Latest submission	NCSD/MoE	Raises ambition; adaptation for coasts	Guides finance pipelines (NbS, wastewater, ports).
Draft Marine Spatial Plan (EEZ)	Drafting stage	MoE (with NCCMD)	Spatial zoning of uses/pressures	Referenced in national & PEMSEA reports.
National Oil-Spill Arrangements & Dispersant Guideline	Drafting stage	MPWT (competent); MoE	Preparedness/response; port reception	Technical workshops done; formal adoption pending.
Statement No. 01 – Marine Fisheries Principles	2019	RGC	Vision for sustainable small-scale fisheries	Policy signal for MFMA and equity focus.
Sub-Decree on Water Pollution Control (No. 27)	1999	MoE	Establishes discharge standards, permitting and monitoring requirements for wastewater and effluent	Foundational instrument for controlling industrial, municipal and port-related discharges; enforcement capacity remains uneven.
Sub-Decree on Solid Waste Management (No. 113)	2015	MoE	Regulates solid waste generation, collection, transport and disposal	Provides legal basis for municipal and industrial waste management; challenges persist in coastal towns and tourism areas.
National Policy on Waste Management	2018	MoE	Sets national direction for integrated solid waste management	Supports improved collection, disposal and reduction of leakage to rivers and coastal waters.
National Action Plan for Marine Plastic Waste Management	2023–2030	MoE / NCSD	Targets reduction of plastic leakage into marine and coastal environments	Emphasises source reduction, awareness, recycling and inter-agency coordination; aligns with regional marine debris initiatives.
F) Data Systems, Monitoring & SDG Governance Indicators				
FiA Marine Catch Monitoring (landing sites)	Operational since 2021	FiA/MAFF	Monthly CPUE, effort, species, value for Kampot, Kep, Koh Kong, Preah Sihanouk	Inputs to EAFM, stock assessments, MFMA zoning.
SDG 14.6.1 (IUU instruments)	FAO scoring	FiA/MAFF, MoJ, Navy/NCMS	Tracks adoption/enforcement of IUU tools	Use FAO portal & UN metadata bands 1–5.
SDG 14.2.1 (Ecosystem-based approaches)	Qualitative evidence	MoE/FiA/NCCMD	Recognizes EAFM/MPAs/ICM as EBAs	Aggregate from MFMA/PA/ICM instruments.

SDG 6.5.1 / 6.5.2 (IWRM & transboundary)	62% (2023) / 98% coverage	MOWRAM/ NCSD	Land–sea planning, Mekong cooperation	Indicates enabling environment but finance/capacity gaps.

D. Civil Society, Stakeholders and Participation

This annex synthesises the roles and contributions of civil society organisations, community groups, and other stakeholders in coastal and marine governance. It draws on NGO conservation program documents (FFI, MCC, WEA, WCS, IUCN), co-management agreements, SMART/Kobo field monitoring, and participation records from PCCMD, FiA, and MoE processes.

The analysis assesses the **breadth and depth of engagement**, mapping how many actors are involved, in what capacity, and with what degree of influence over planning and enforcement. Special attention is paid to **inclusion and social equity**—specifically, the extent to which women, youth, Indigenous people, and marginalized households participate in marine resource decision-making.

The annex evaluates the functioning of co-management structures (CFi, CPA, MFMA committees), their geographic coverage, resourcing, and effectiveness in improving compliance and stewardship. It also reviews the presence of grievance mechanisms, benefit-sharing arrangements, and transparency practices, all of which are critical for building legitimacy and trust. Finally, it checks for evidence of behavioural change, such as improved compliance, reduced destructive fishing, or adoption of sustainable practices.

Annex Table 6-7 Stakeholder participation: data sources, metadata, and assessment method

Category	Details
Data Sources	• NGO programs (FFI, MCC, WEA, WCS; IUCN) • Co-management agreements and CPA/CFi by-laws • SMART/Kobo monitoring datasets • Public awareness programs (MoE, UN-PAGE) • PCCMD/FiA/MoE stakeholder participation records
Metadata	• Number and diversity of stakeholders engaged • Inclusion of women, youth, Indigenous and marginalized groups • Geographic coverage and resourcing of co-management units • Existence of grievance-handling and benefit-sharing systems
Assessment Method	• Evaluate effectiveness and meaningfulness of stakeholder engagement. • Assess dependence on project-based participation versus institutionalised processes. • Identify evidence of behavioural change from outreach/co-management. • Identify gaps in grievance handling, benefit-sharing, and transparency.

Civil society organisations and co-management groups play a critical bridging role in monitoring, patrol support, and community engagement, yet participation remains project-dependent and uneven across provinces. While women and youth engagement is improving, gaps persist in grievance handling, transparent benefit-sharing, and long-term resourcing for CFis/CPAs and MFMA committees.

E Governance Performance and Effectiveness

This annex evaluates governance effectiveness using outcome-based indicators under the Transboundary Waters Assessment Framework (TWAF) and regional commitments such as SDS-SEA and RAP-MALI. It brings together ecological, social, and institutional metrics to

assess whether governance systems are achieving meaningful results across five outcome domains: **stakeholder engagement, stress reduction, ecosystem state, social justice, and human well-being**.

Ecological indicators include CPUE trends, species composition, habitat restoration metrics, and MPA/MFMA METT scores. Pollution indicators (MoE/MPWT) and wastewater compliance levels help determine whether stressors are decreasing in high-risk coastal areas. Social outcomes incorporate poverty, livelihoods, access rights, and benefit-sharing.

The annex also integrates hazard and oil-spill readiness assessments (IMO/ITOPF) to determine governance capacity for risk reduction and emergency response. A critical dimension is the extent to which monitoring systems are **translated into adaptive decisions**, regulatory adjustments, or enforcement actions—rather than remaining purely descriptive.

The final analysis identifies systemic constraints that limit governance effectiveness, including underfunding, weak integration between land and sea planning, incomplete MSP frameworks, fragmented monitoring systems, and limited cross-agency coordination. These findings directly inform recommendations for improving Cambodia's coastal governance architecture.

Annex Table 6-8 Governance performance and effectiveness: data sources, metadata, and assessment method

Category	Details
Data Sources	• SDG 6.5.1 and 6.5.2 indicators • FiA marine catch monitoring (CPUE, effort, species, value) • METT/SMART evaluations of MPA/MFMA sites • MoE/MPWT pollution & wastewater monitoring • Poverty and well-being indicators • Oil-spill readiness (IMO/ITOPF)
Metadata	• Stress-reduction indicators (compliance, plastics reduction) • Ecosystem-state proxies (CPUE, habitat condition, MPA coverage) • Social-justice outcomes (access rights, livelihoods, benefit-sharing) • Risk indicators (hazard exposure & response capacity)
Assessment Method	• Apply TWGAF outcomes: engagement, stress reduction, ecosystem state, social justice, well-being. • Compare national progress against SDS-SEA and RAP-MALI commitments. • Assess translation of monitoring data into adaptive decisions. • Identify systemic bottlenecks (financing, integration, MSP gaps).

Governance performance shows pockets of progress—improving METT scores, stronger community engagement, and some local stress-reduction outcomes—but system-wide effectiveness is hampered by weak monitoring–decision linkages, limited financing, and incomplete MSP and pollution-control frameworks. Risk preparedness, especially for oil spills and climate hazards, remains insufficient relative to increasing development pressure and hazard exposure.

Annex Table 6-9 Institutions and duties/functions related to coastal–marine governance & qualitative observations

Institute	Mandate	Linkages to Marine Governance	Legal Foundation	Qualitative Observations

Ministry of Land Management, Urban Planning and Construction (MLMUPC)	Land policy, land-use planning, construction permitting, and resolution of land disputes including coastal areas; chairs NCCMD.	Integrates and oversees coastal land-use and development planning, including zoning for tourism, SEZs, and port expansion.	*Land Law (2001)*; *Construction Law (2019)*; *Royal Decree on NCCMD (2012)*.	Strong lateral coordination with MoE, FiA, and MPWT; critical role in preventing coastal land-use conflicts; capacity improving but enforcement inconsistent, especially regarding coastal EIAs and speculative land conversion.
Ministry of Environment (MoE)	Lead and manage environmental protection, biodiversity conservation, pollution control, and sustainable natural resource use.	Leads coastal/marine conservation, manages MPAs/MFMAs (delegated), chairs DCZMC for ICZM, oversees coastal water quality monitoring.	*Environment Code (2023)*; *Protected Areas Law (2008)*; *Sub-Decree on EIA (1999)*; *Royal Decree on NCSD (2015)*.	National lead for conservation and pollution monitoring; increasingly active in MPA/MFMA co-management; vertical linkages strong but resources for enforcement still limited; water-quality data improving.
Ministry of Agriculture, Forestry and Fisheries (MAFF)	Manage and control natural-resource use across Cambodia.	FiA manages marine and freshwater fisheries; DFC leads marine conservation enforcement, species protection, and MFMA governance.	*Fisheries Law (2006)*; *MAFF Prakas on Fisheries Management Areas*; *Sub-Decree on FiA Structure*.	Core authority for marine fisheries; strong patrol presence in some provinces; data systems improving (CPUE, SMART); livelihood programmes expanding, but enforcement uneven due to limited patrol assets.
Ministry of Mines and Energy (MME)	Promote industrial development, hydropower, mining, and oil/gas exploration.	Oversees offshore petroleum blocks; regulates coastal energy infrastructure with implications for marine habitats and oil-spill risks.	*Law on Petroleum (2019)*; *Mining Law (2001)*; MME regulatory prakas.	Engagement mainly linked to offshore blocks and hydropower; limited direct role in habitat governance; environmental safeguards improving but oil-spill readiness weak.
Ministry of Tourism (MoT)	Develop and regulate national tourism policies, tourism products, and services.	Oversees coastal tourism planning, infrastructure standards, and environmental quality for coastal destinations.	*Tourism Law (2009)*; national coastal tourism master plans.	Coastal tourism growth increases pressure; works well with MoE on beach clean-ups and water-quality monitoring; lacks long-term ecosystem-based tourism planning.

Ministry of Public Works and Transport (MPWT)	Responsible for national transport systems including ports, waterways, and maritime navigation.	Merchant Marine Department and GD Waterway–Maritime Transport regulate ports, vessel safety, wastewater from ships, and marine transport pollution.	*Law on Waterway Transport*; MPWT port regulations; maritime safety prakas.	Key for port wastewater, maritime regulations, and stormwater; compliance actions improving; monitoring capacity still low for ship-based pollution and port effluents.
National Committee on Coastal Area Management and Development (NCCMD)	Inter-ministerial coordination body for coastal development and management.	Leads integrated coastal management; coordinates ministries, approves coastal zoning, and supports ecosystem conservation and livelihoods.	*Royal Decree on NCCMD (2012)*.	Effective inter-ministerial coordination mechanism; provides vertical integration through PCCMDs; policy cycle partially complete; monitoring and enforcement depend on member ministries.
National Council for Sustainable Development (NCSD)	National body for climate change, green growth, environmental policy integration.	Leads national climate policy, supports marine climate adaptation, integrates biodiversity and SDG reporting.	*Royal Decree on NCSD (2015)*.	Strong climate leadership; integrates SDG and environmental policies; good cross-sector coordination; high-level but limited operational enforcement capacity.
Provincial/District Authorities (MoI)	Oversee local administration, development planning, and law enforcement.	Implement coastal regulations, enforce fishing rules, manage coastal land concessions, and coordinate local development.	*Law on Administrative Management of Capital, Provinces, Municipalities (2008)*.	Strong on-ground enforcement role; vertical coordination improving; gaps in technical expertise and budget; community engagement strong but enforcement varies widely by province.
Provincial Committee for Coastal Management and Development (PCCMD)	Provincial-level coastal planning and enforcement committee.	Coordinates marine patrols, coastal zoning, pollution control, and enforcement between MoE–FiA–police–military at provincial level.	*NCCMD Implementation Guidelines*; provincial prakas (Kep, Kampot, P. Sihanouk, Koh Kong).	Effective provincial coordination mechanism; strong in multi-agency patrols and rapid response; limited analytical capacity and budget for coastal planning; reliant on national-level guidance.

Annex 6-2 Explanatory Note: International Environmental and Governance Benchmarks: Cambodia

This annex provides additional detail on Cambodia's performance against selected **international environmental and governance benchmarks**, namely the **Environmental Performance Index (EPI)** and the **World Bank Worldwide Governance Indicators (WGI)**. These indicators are not used as direct performance measures within the TDA, but rather as **contextual benchmarks** to help interpret national governance capacity, systemic risks and constraints relevant to coastal and marine resource management.

A. Environmental Performance Index (EPI)

Cambodia's results in the **2024 Environmental Performance Index (EPI)** highlight the scale and persistence of its environmental management challenges. The country ranks **around 170th out of 180 countries**, with a composite score of approximately **31**, placing it in the **lowest global decile**. Over the past decade, Cambodia's overall EPI score has shown only **marginal improvement (Δ≈0.4)**, indicating limited progress in addressing structural environmental pressures.

From a coastal and marine governance perspective, several EPI components are particularly relevant:

Air quality and pollution

- **Air Quality:** Cambodia is ranked **158th** globally with a low score of **18.1**. Indicators like **Anthropogenic PM2.5 exposure** (rank 133) reflect the serious impact of air pollution on human health.
- **Air Pollution (Ecosystem Vitality):** Ranked **176th** with a score of **14.5**, this indicates very poor control over emissions affecting ecosystems, such as **nitrous oxides** and **sulfur dioxide** emissions growth rates (ranked 176 and 174, respectively).
- These pressures are closely linked to coastal urbanisation, port activity and tourism growth, with indirect effects on coastal and marine ecosystems through atmospheric deposition and urban runoff.

Climate Change and Ecosystem Vitality

Despite some areas of strength in biodiversity protection, performance in overall ecosystem health and climate mitigation is poor

- **Climate Change Mitigation:** Ranked **178th** globally with a score of **16.7**. This highlights the country's struggle to manage its **Greenhouse Gas (GHG) emissions growth rate**, especially for **carbon dioxide** (ranked 178).
- **Forests:** Ranked **110th** with a score of **37.6**. Cambodia is grappling with issues like **Primary Forest Loss** and **Tree cover loss**, largely attributed to illegal logging, agricultural expansion, and land conversion, which contributes to land degradation and deforestation.
- **Water Resources:** Ranked **150th** with a score of **13.4**. This low score reflects a major issue with inadequate infrastructure, particularly in **wastewater collection** (rank 141) and **wastewater treated** (rank 148), which contributes to water pollution in inland and coastal areas.

- Cambodia ranks among the lowest globally for greenhouse-gas emissions trajectories, with rapid growth in CO_2 and other GHG emissions. While Cambodia's absolute emissions remain low in global terms, the trend reflects increasing reliance on fossil fuels, urban expansion and industrial activity, which compound climate risks affecting coastal zones (e.g. sea-level rise, heat stress and extreme events).

Areas of Relative Strength

While the overall rank is low, Cambodia shows better performance in specific indicators within the Ecosystem Vitality objective:

- **Biodiversity & Habitat:** Ranked **57th** with a score of **56.9**. The country scores relatively well in protecting specific areas, such as **Terrestrial Biome Protection** (rank 1, score 100.0) and **Species Protection Index** (rank 14), suggesting that a large portion of its terrestrial biomes is formally protected.
- **Agriculture:** Ranked **48th** with a score of **64.6**, notably high in **Phosphorus Surplus** management (rank 1, score 100.0) and **Relative Crop Yield** (rank 45).
- **Forest and land-use change:** EPI scores in this domain are moderate, but continued primary forest and tree-cover loss associated with agricultural expansion, economic land concessions and infrastructure development remain evident. These land-use changes increase sediment loads and alter freshwater inflows to estuaries, mangroves and nearshore habitats, with downstream implications for fisheries productivity and coastal ecosystem health.

Annex Table 6-10 Cambodia's EPI 2024 summary

Metric	Value	Interpretation
Global Rank	**170** (out of 180 countries)	Places Cambodia in the bottom 10% globally, indicating very poor environmental performance.
EPI Score	**31.2**	This low score suggests that the country is far from meeting established environmental policy targets across various issues.
Regional Rank	**22** (e.g., in the Asia-Pacific region)	Indicates poor performance relative to its regional peers.
10-Year Change (Δ)	**0.4**	Suggests a negligible improvement in environmental performance over the past decade.

Source: *Environmental Performance Index (EPI), 2024. Cambodia Country Profile*

Areas of relative strength in the EPI include **biodiversity and habitat protection**, where terrestrial biome protection and species-related indicators score comparatively higher, and certain **agricultural indicators** (e.g. phosphorus surplus and relative crop yield). These results suggest that conservation designations and specific sectoral measures can be effective where implementation and enforcement are sustained.

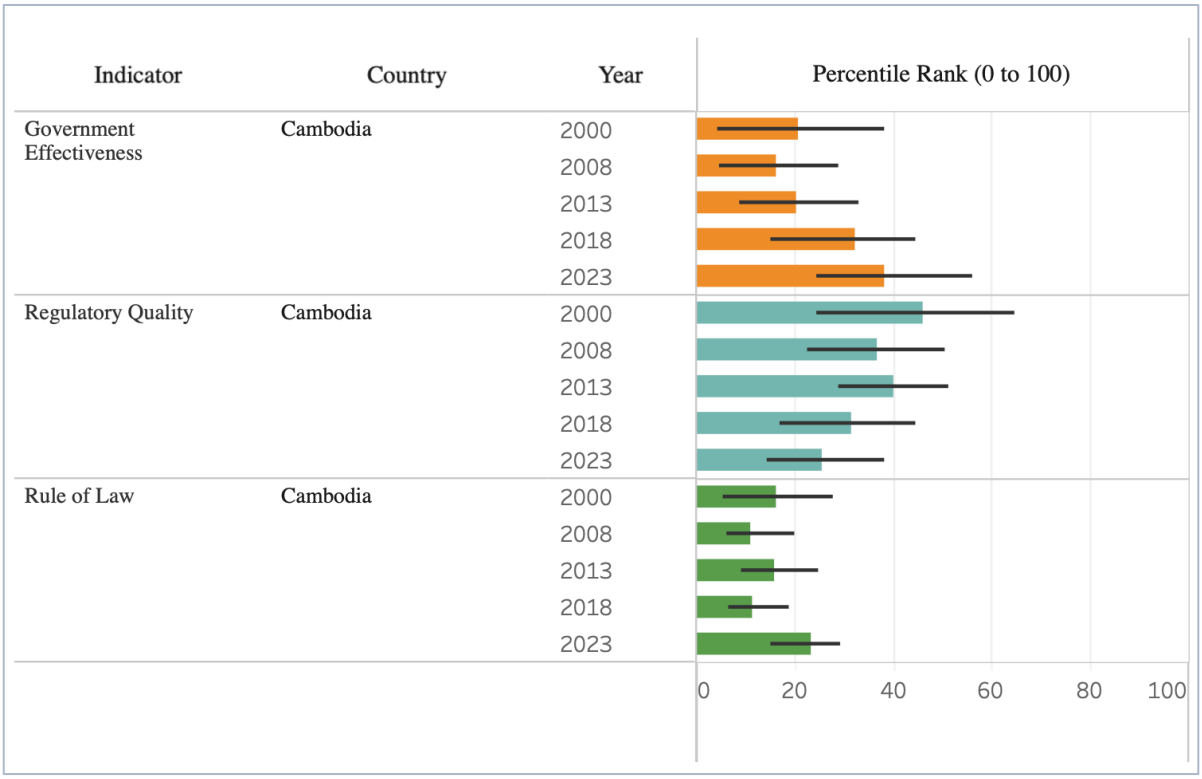
Overall, for the purposes of this TDA, the EPI underscores that **structural pollution pressures, land-use change and climate-related risks remain high**, reinforcing the need for sustained investment in wastewater and solid-waste management, air-emissions control, and land-use planning that safeguards coastal ecosystems.

B. World Bank Worldwide Governance Indicators (WGI)

The **World Bank Worldwide Governance Indicators (WGI)** provide complementary insight into Cambodia's broader governance environment and its implications for coastal and marine

management capacity. Cambodia's scores remain low across several dimensions that are directly relevant to environmental governance.

- **Government Effectiveness:** Cambodia ranks in approximately the **10–13th percentile globally**, reflecting weak perceptions of public-service quality, policy implementation and bureaucratic capacity. These constraints affect the ability of national and provincial administrations to plan, implement and sustain complex governance instruments such as **integrated coastal zone management (ICZM)**, **marine spatial planning (MSP)**, routine compliance monitoring and environmental service delivery.
- **Regulatory Quality:** With scores in the **15–20th percentile**, Cambodia faces challenges in designing and enforcing predictable, transparent and pro-environment regulatory frameworks. In coastal areas, this is reflected in uneven application of **EIA/SEA conditions**, limited cumulative-impact control, and difficulties in regulating ports, tourism development, fisheries, aquaculture and pollution sources in a coordinated manner.
- **Control of Corruption:** Cambodia's position in the **5–10th percentile globally** indicates persistent corruption risks in both public and private sectors. These risks undermine equitable benefit-sharing, increase the likelihood of non-compliant or informal development in sensitive coastal zones, and weaken trust in licensing, enforcement and grievance-redress mechanisms.



Annex Figure 6- 1 World Bank Worldwide Governance Indicators (WGI) – Cambodia
Source: *World Bank, 2024, Worldwide Governance Indicators, 2024 Update, World Bank.*

Annex 6-3 Explanatory Note: Rationale for Cambodia's TWAP Governance Scores

This annex records the basis for Cambodia's self-assigned scores under the **TWAP Governance Architecture Assessment Framework** (Fanning et al., 2017). Consistent with TWAP practice, the scoring is an **evidence-based qualitative judgment** drawing on the

institutional review, indicators and risk discussion presented in Chapter 6. The framework assesses three attributes of governance architecture—**Completeness, Integration and Engagement**—as proxies for the extent to which governance arrangements are capable of delivering coherent, adaptive and inclusive management of coastal and marine systems.

A. Completeness (55–60%; Medium–Low)

Score rationale. Cambodia's completeness score reflects that the principal building blocks of a coastal–marine governance system are in place, including: (i) a broad legal and policy framework for environment, fisheries and protected areas; (ii) designated national and subnational institutions with mandates relevant to coastal and marine management; and (iii) a growing set of management instruments, including co-management arrangements (e.g., MFMAs/CPAs), compliance/patrol mechanisms and emerging monitoring and reporting functions.

Key evidence supporting the score.

- **Policy and legal coverage is largely present** across the main management functions (planning, regulation, conservation/co-management, compliance) and aligns with national strategies on environment and climate.
- **Institutions exist at multiple levels** (national–provincial–local) to implement sectoral mandates and coordinate selected cross-sector actions.
- **Monitoring and management tools are expanding**, particularly through site-based co-management and protected area systems.

Why the score is not higher. The policy cycle is not yet consistently operational across provinces and sectors. Constraints include **variable implementation and enforcement capacity**, uneven resourcing for routine functions (monitoring, laboratories, patrols, wastewater oversight), and limited institutionalization of **adaptive management** (systematic use of monitoring results to revise rules, zoning, investment priorities and budgets). These limitations reduce the effectiveness of otherwise complete formal arrangements, supporting a Medium–Low score.

B. Integration (0.35–0.45; High–Medium Risk)

Score rationale. Integration is assessed as the main structural weakness. While Cambodia demonstrates progress in selected coordination mechanisms and regional cooperation, governance for the coastal–marine space remains **fragmented across institutions and sectors**, particularly for sea-use decisions and land–sea interactions.

Key evidence supporting the score.

- **Vertical integration has advanced in principle** through national-to-subnational arrangements and expanding coastal management initiatives, and Cambodia participates actively in **regional cooperation** platforms relevant to SCS–GoT.
- However, **horizontal integration remains limited** among core coastal drivers (ports/shipping, tourism, urban development, wastewater/solid waste, fisheries and aquaculture).
- **Marine spatial planning is not yet fully operational**, and mandates related to sea-space planning, licensing, compliance and monitoring remain distributed, creating coordination gaps at the land–sea interface.

Why the score remains in the High–Medium risk band. The current architecture does not consistently enable "whole-of-government" coastal planning or cumulative impact control,

especially where blue-economy investments intersect with sensitive habitats and pollution pathways. Sectoral decision-making therefore tends to remain **siloed**, and integration is often project- or site-dependent rather than institutionalized.

C. Engagement (45–55%; Medium)

Score rationale. Cambodia's engagement score reflects meaningful stakeholder participation in parts of the system—especially through co-management—while recognizing that participation and accountability mechanisms are **uneven across sectors and development contexts**.

Key evidence supporting the score.

- **Co-management platforms** (e.g., MFMAs and protected-area community arrangements) provide structured participation and have strengthened local stewardship and compliance in several locations.
- **Formal participation provisions** exist through EIA/SEA-related processes and other consultation mechanisms.

Why the score is not higher. Engagement is less consistent in large-scale coastal development contexts (e.g., ports/SEZs, reclamation, tourism corridors), where decision-making can be predominantly top-down. Coverage and quality of participation, grievance handling, transparency, and systematic inclusion of women, youth and vulnerable groups are variable. These gaps support a Medium engagement score.

Summary interpretation

Overall, Cambodia's governance architecture is assessed as **moderately complete** in terms of formal structures, but **less mature in integration and consistent implementation** across sectors and provinces. Engagement is **moderate**, anchored by co-management strengths but constrained by uneven participation and accountability in major coastal development processes. These results help explain why cumulative pressures (pollution, habitat conversion, coastal development intensity and resource-use conflicts) remain difficult to manage without further institutionalization of cross-sector planning, sustainable financing and routine compliance capacity.