



CRITICAL UNDERWATER INFRASTRUCTURE

Southeast Asian Approaches to the Security of Submarine Cables: Lessons for the Arctic?

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Presentation Overview

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**The Security of Submarine
Cables: Mapping the Landscape**

02

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**Southeast Asian Approaches to
the Security of Submarine
Cables**

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Lessons for the Arctic

Causes of Damage to Submarine Cables

Natural Causes

- **Seismic activity & tsunamis**
Earthquakes trigger turbidity currents (underwater landslides) that snap cables and displace pipelines.
- **Submarine landslides**
Sediment displacement buries or crushes seabed infrastructure.
- **Extreme weather & currents**
Strong bottom currents, storms and ice scour cause abrasion and displacement.

Man-Made Causes

Accidental / Negligent

- **Fishing activity**
Bottom trawling accounts for ~50–70% of all cable faults worldwide.
- **Vessel anchoring**
Dragged anchors shear cables and breach pipeline coatings.
- **Dredging & construction**
Unintended strikes during seabed development or port works.

Intentional

By States

- **State-sponsored sabotage**
Covert operations against adversary infrastructure; plausibly deniable methods.
- **Grey-zone / hybrid warfare**
Use of merchant or shadow fleet vessels to damage cables with deniability.

By Non-State Actors

- **Terrorism & insurgency**
Deliberate attacks to disrupt communications or trigger energy crises.
- **Criminal networks**
Seeking strategic disruption of critical infrastructure.

NORWAY

SWEDEN

Damage sustained to Baltic-connector pipeline and three telecommunications cables

Helsinki

Inkoo

Ust-Luga

Tallinn

Paldiski

ESTONIA

LATVIA

LITHUANIA

Sept. 27, 2022

Two leaks reported on
— Nord Stream 1 pipeline

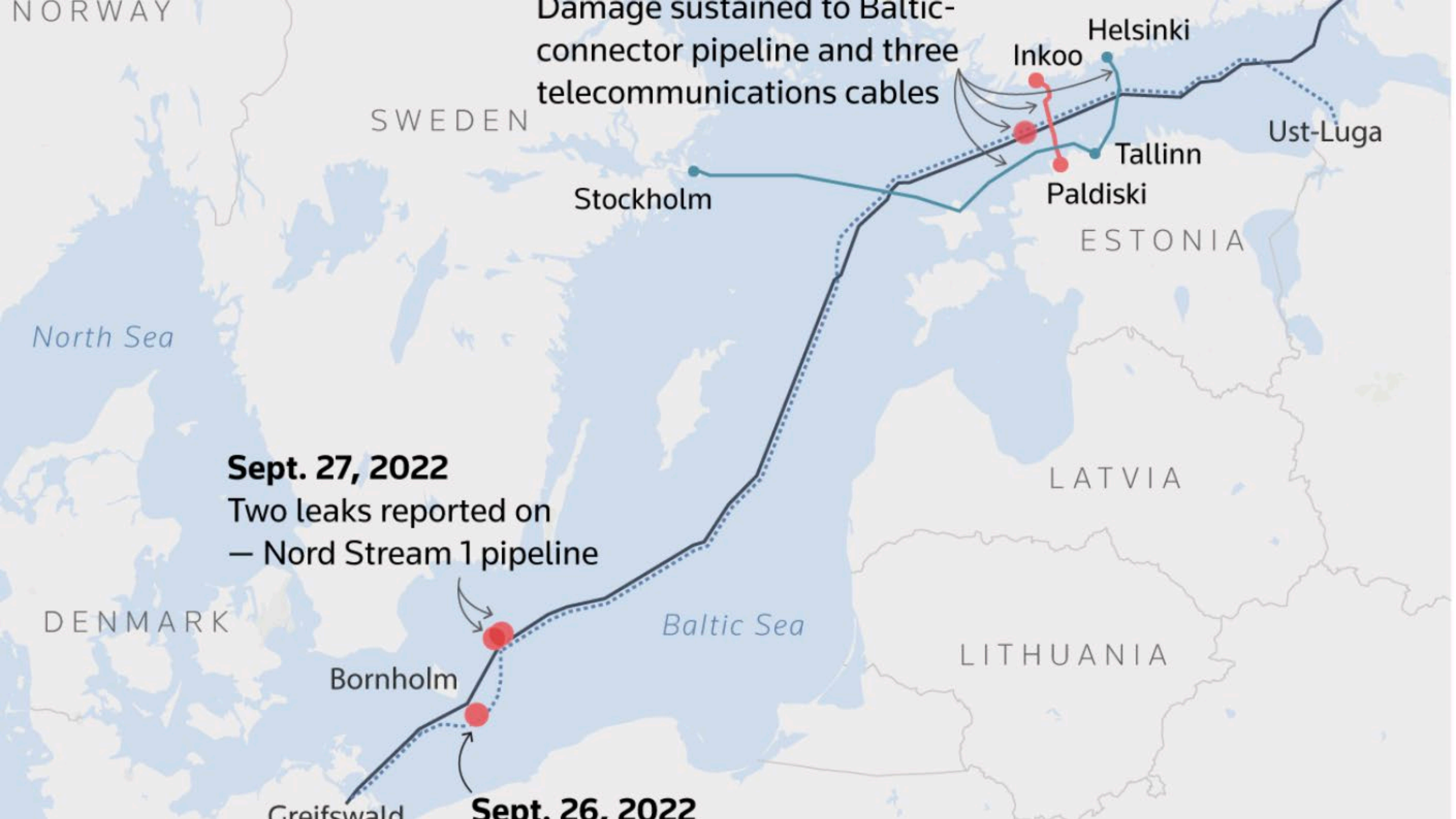
DENMARK

Bornholm

Baltic Sea

Sept. 26, 2022

Greifswald



Damage to Submarine Infrastructure

Incident	Date	Flag State	Infrastructure	Location	Action Taken	Outcome
Nord Stream	26 Sep 2022		Nord Stream 1 & 2 gas pipelines	EEZ of Denmark & Sweden, Baltic Sea	Investigation by Germany, Sweden & Denmark. No interdiction. All three investigations subsequently closed.	Pipelines destroyed by underwater explosions. No state held responsible. Attribution remains disputed.
Newnew Polar Bear	7–8 Oct 2023	Hong Kong (China)	Balticconnector gas pipeline + 3 telecom cables (Finland–Estonia; EE-S1; Baltika)	EEZ / High Seas, Gulf of Finland & Baltic Sea	No boarding. Finland & Estonia launched criminal investigations and sent legal assistance requests to China. China acknowledged damage Aug 2024, attributing it to storm.	Captain arrested in Hong Kong (May 2025); pleaded not guilty (Feb 2026). Criminal trial ongoing in Hong Kong.
Yi Peng 3	17–18 Nov 2024	China	2 telecom cables: BCS East-West Interlink (Sweden–Lithuania); C-Lion1 (Finland–Germany)	Swedish EEZ, Baltic Sea	Denmark accompanied vessel. Ship anchored in Kattegat (Danish EEZ). No boarding without Chinese consent. Limited flag-states supervised inspection permitted 19 Dec 2024.	Vessel released 21 Dec 2024. No legal proceedings. Swedish investigation: no conclusive evidence of intent. Classic illustration of EEZ enforcement gap.
Eagle S	25 Dec 2024	Cook Islands	Estlink 2 power cable + 4 telecom cables (Finland–Estonia)	Finnish EEZ, Gulf of Finland	Finland diverted vessel into territorial waters; boarded by special forces. Taken to port. Criminal investigation. Three crew under travel ban. Anchor chain dragging — no anchor attached.	Finnish court dismissed charges (Oct 2025): intent not proven; negligence referable to flag state. Vessel released. First use of coastal state diversion strategy to overcome EEZ enforcement gap.

Operational Challenges



Mundane to Sophisticated Means

Anchors and trawl gear — or submarines, divers and underwater drones using cutters and explosives = plausible deniability



Cause is Hard to Identify

Faults trigger automatic re-routing; the cause may not be known until repairs.



Multiple States Affected

Cables span jurisdictions and serve many states — making it hard to identify the intended target.



State and Non-State Actors

Hybrid/grey-zone tactics, terrorism and crime at sea blur traditional security categories.

Legal Regime Governing Submarine Cables under UNCLOS

Freedom to Lay & Repair Submarine Cables

Arts. 58, 79, 87(1)(c) — All states enjoy the freedom to lay cables in the EEZ and on the high seas, subject to due regard for other states' rights. Coastal state consent required for pipeline routes on the continental shelf (Art. 79(3)).

Protection of Submarine Cables

Arts. 113–115 — Flag states must criminalise wilful/negligent damage to cables, ensure liability for repair costs, and compensate vessel masters who sacrifice gear. Extended to the EEZ by Art. 58.

Territorial Sea

Arts. 2, 21(1)(c), 25, 27

Laying & Repair of Submarine Cables

- **Foreign cables:** may be laid in the territorial sea only subject to coastal/archipelagic state consent

Protection of Cables

- **Prescriptive jurisdiction:** coastal state may adopt laws protecting cables during innocent passage (Art. 21(1)(c)).
- **Enforcement:** state may prevent non-innocent passage and exercise criminal/civil jurisdiction over cable damage (Arts. 25, 27, 28).

EEZ & Continental Shelf

Arts. 56, 58, 79, 112–115

Freedom to Lay & Repair

- **All states have freedom to lay and repair cables** in the EEZ and on the continental shelf (Arts. 58(1), 79(1)).
- **Due regard obligation:** must respect the rights and duties of the coastal state (Art. 79(5)).

Protection of Cables

- **States must criminalise wilful or negligent damage by their vessels or nationals** (Art. 113)
- **No general interdiction:** no right against foreign vessels in EEZ without flag state consent.

High Seas & Deep Seabed

Arts. 87, 89, 112–115, 136, Part XI

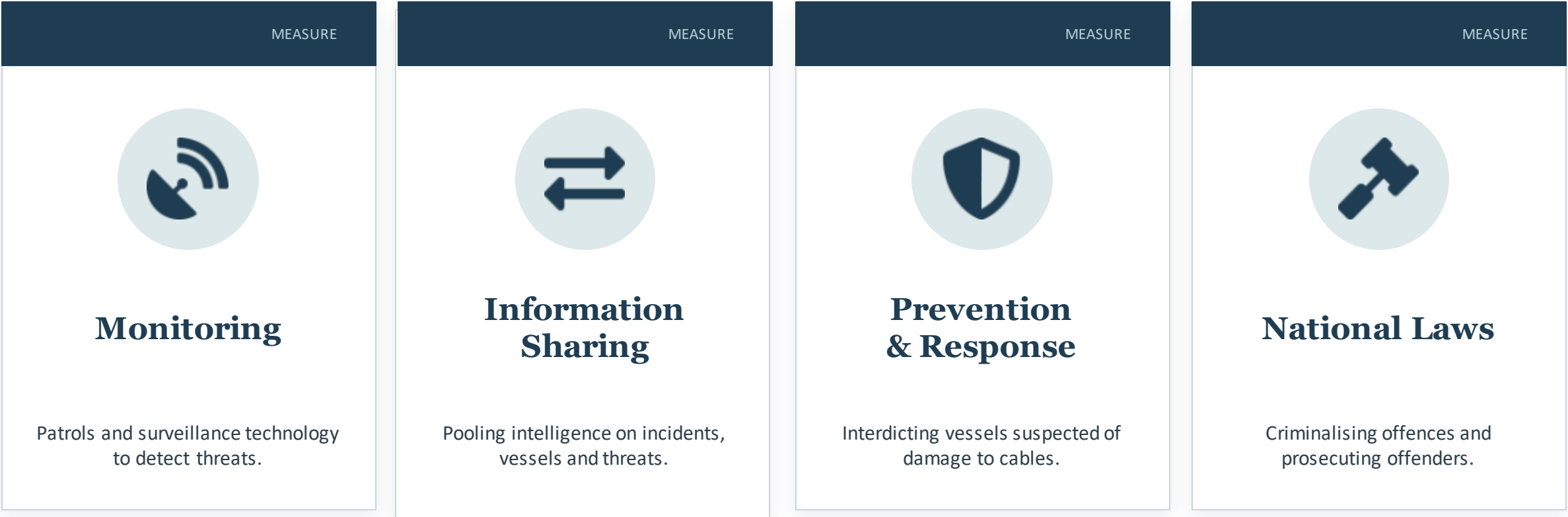
Freedom to Lay & Repair

- **All States have freedom to lay submarine cables in the high seas** (Art. 87(1)(c)).
- **Deep Seabed (Area):** cables subject to general UNCLOS regime; ISA regulates mining but not cables per se (Art. 136).

Protection of Cables

- **States must criminalise wilful/negligent breaking of cables by their vessels or nationals** (Art. 113)
- **No general interdiction:** no right to board foreign vessels without flag state consent in the high seas

Key Legal Measures Necessary to Protect Cables



Importance of Submarine Cables to Southeast Asia

US\$1 TRILLION

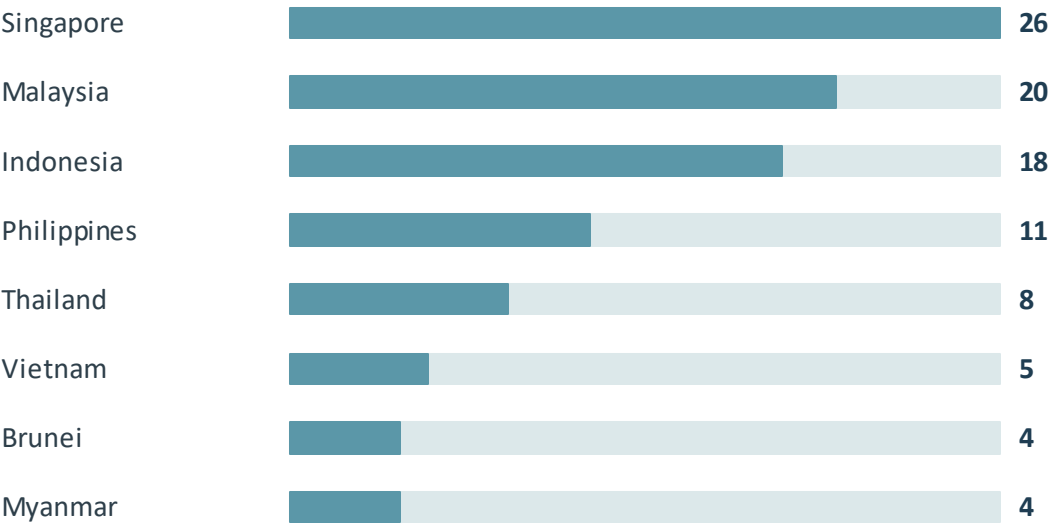
\$1T

Projected size of Southeast Asia's digital economy by 2030.

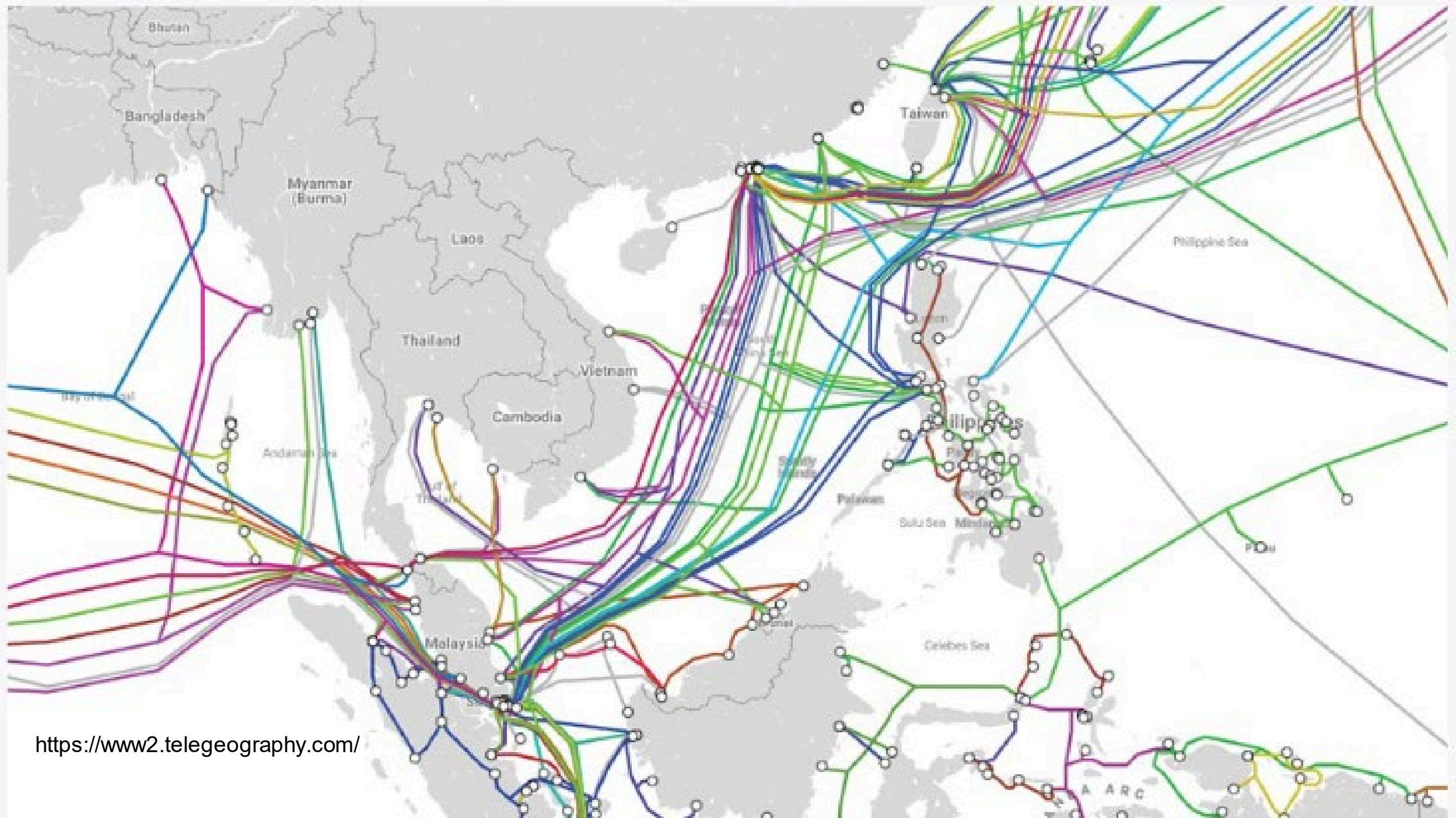
Submarine fibre-optic cables carry the data underpinning this growth — affirmed by ASEAN as “critical infrastructure that needs to be protected.”

Submarine cables connected

By Southeast Asian state



Source: TeleGeography (excludes domestic systems)



Challenges for Cooperation to Protect Cables in Southeast Asia

1

Contested Maritime Space

Overlapping claims, pending continental shelf submissions, and unresolved South China Sea disputes.

2

Diverging Priorities

States vary in cable reliance and maritime threats — IUU fishing, piracy, terrorism — making submarine-cable security a non-uniform priority.

3

Asymmetric Capabilities

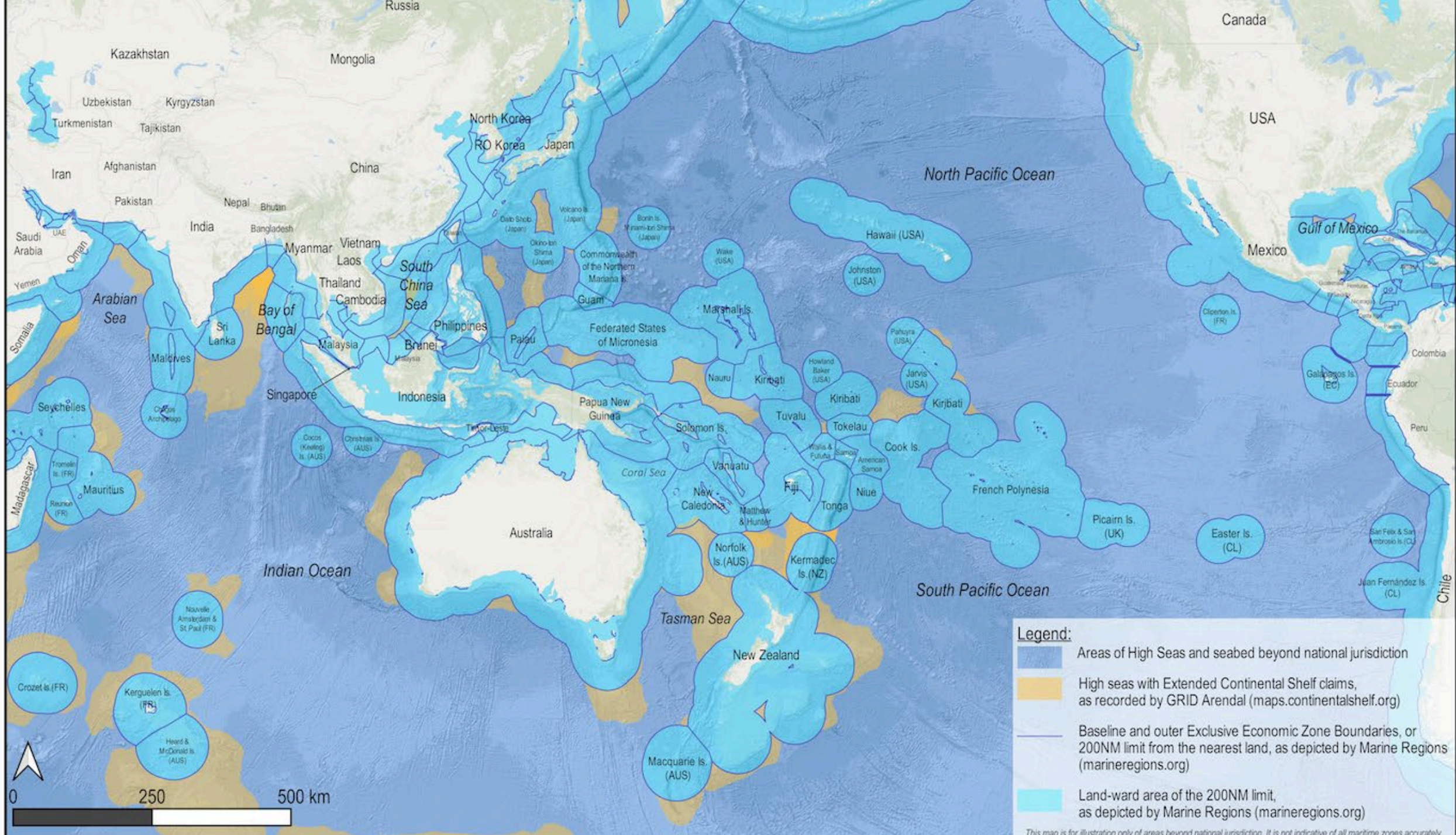
Vast maritime spaces with limited naval and coast guard resources; some of the largest maritime governance gaps sit alongside the lowest budgets.

4

Sovereignty & Outside Powers

Reluctance toward extra-regional initiatives perceived as compromising sovereignty or aligning with major powers.

State	TS	EEZ	CS	CLCS Submission	Objection	CLCS Recommendation	Deposit
Brunei	☒	☒	☒	1 Preliminary Information	No	Pending	-
Cambodia	☒	☒	☒	X	-	-	-
Indonesia	☒	☒	☒	4 Submissions	No	1 recommendation 3 Pending	X
Malaysia	☒	☒	☒	2 Submissions	China Philippines	2 Pending	-
Myanmar	☒	☒	☒	1 Submission	Bangladesh	1 Pending	-
Philippines	☒	☒	☒	2 Submissions		1 recommendation 1 Pending	☒
Singapore	☒	☒	X	X	-	-	-
Thailand	☒	☒	☒	X	-	-	-
Timor-Leste	☒	☒	☒	X	-	-	-
Viet Nam	☒	☒	☒	2 Submissions	China Philippines	2 Pending	-



Monitoring



Challenges

- Cables are continuous, multi-spot targets — kilometres long, not point assets.
- Limited national capabilities to patrol vast EEZs and archipelagic waters.
- Third-state surveillance in EEZs may be contested as military activity, surveys or intelligence.
- Concerns that surveillance technology may collect ancillary defence information.

Opportunities

- Joint or coordinated monitoring among states with shared interest.
- Build on the Malacca Straits Patrol (Indonesia, Malaysia, Singapore, Thailand).
- Build on the Trilateral Cooperative Arrangement in the Sulu/Celebes Sea.
- “Minilateral” cooperation among smaller groups of states with common interests.

Information-Sharing

The most realistic near-term win.

Southeast Asian states already participate in regional information-sharing mechanisms — and existing infrastructure can absorb cable-incident data with relatively little friction.

Key requirements:

- Cable owners and operators to notify cable faults to relevant agencies.
- Channels for sharing AIS / vessel data with operators.
- Confidentiality and competition-law frameworks (per ICPC best practices).

Existing platforms to build on

ReCAAP-ISC

Regional Cooperation Agreement on Combating Piracy and Armed Robbery — collects and disseminates incident data.

Information Fusion Centre (IFC)

Singapore-based; real-time actionable intelligence across maritime security threats.

Prevention & Response

Where can a coastal state board a vessel suspected of damaging a cable?

Territorial Sea	Exclusive Economic Zone	High Seas
STRONG POWERS Coastal states may treat passage as non-innocent and enforce national laws — including the right of hot pursuit.	LIMITED POWERS Generally, only flag-state consent permits boarding. No express UNCLOS right to interdict for cable damage. Coastal State may have interdiction powers if cable damage can be linked to its sovereign rights and jurisdiction in the EEZ	VERY LIMITED Flag-state consent required. The 1884 Convention applies only between its parties — Japan is the only Asian state party.

Sovereign-immune actors (warships, government ships, submarines) cannot be interdicted at all

National Laws

Most Southeast Asian states have not yet criminalised intentional damage to submarine cables in dedicated legislation.

01

No dedicated offence

Most states rely on general telecoms or penal-code provisions, not cable-specific laws.

02

No coverage beyond sovereignty

Damage in the EEZ or high seas typically falls outside national criminal law.

03

UNCLOS Art. 113 unimplemented

No SEA state has enacted the duty to penalise breaking of cables by their nationals or flag vessels.

04

Uneven terrorism treaty uptake

No state is party to the 2005 SUA Protocol; participation in others is mixed.

05

Critical-infrastructure laws

Focus on cyber protection — physical damage to cables is not expressly covered.

06

Existing MLAT under-used

The 2004 ASEAN MLAT can help — but only once a domestic offence exists.

Initial Focus on Repair but Slowly Moving to Securitization

ASEAN remains the central forum — but the issue must move across pillars.

Economic Community Pillar

ADGMIN · Digital Masterplan

- 2019 Guidelines on resilience & repair of submarine cables – adopted enhanced guidelines in 2026.
- Critical Information Infrastructure Protection focuses on cyber threats.
- Has not addressed protection from intentional physical damage.

Political-Security Pillar

AMM · ADMM · ASEAN Regional Forum

- Mandate to enhance maritime security and cooperation.
- Submarine-cable protection is on the agenda with the ADMM adopting a concept paper on security of critical infrastructure
- ARF could leverage interest from external partners (Quad, NATO, EU).



ASEAN Coordinating Council could host a cross-pillar Working Group — as it did for COVID-19 — to align telecoms, defence, maritime and cybersecurity agencies.

Four Recommendations for ASEAN Member States



Go Minilateral

Pursue cooperation on monitoring and response among smaller groups of states with common cable interests — building on Malacca Straits & Sulu/Celebes models.



Use What Exists

Make cable-incident reporting a category in the IFC and ReCAAP — an immediate, low-cost win that engages cable owners and operators.



Close the Legal Gaps

Enact dedicated offences for intentional cable damage; implement UNCLOS Art. 113; engage the 2004 ASEAN MLAT for prosecution.



Whole-of-ASEAN Approach

Use the Coordinating Council to align Economic and Political-Security pillars — protection is more than a digital-economy issue.