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Protecting Critical Maritime Infrastructure: Emerging Challenges and the Need for Cooperation

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Outline

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I. What is Critical Maritime Infrastructure?

II. Implications of Critical Maritime Infrastructure Disruptions (Cyber-Physical Risks)

III. Closing Remark

Critical Maritime Infrastructure

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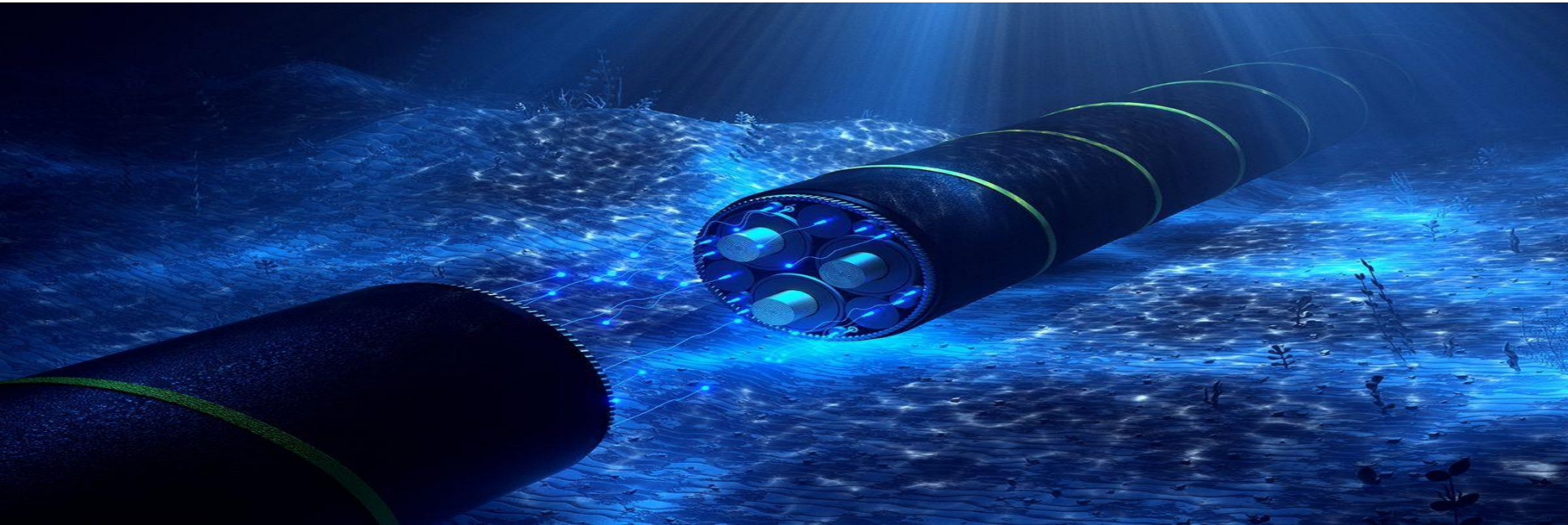










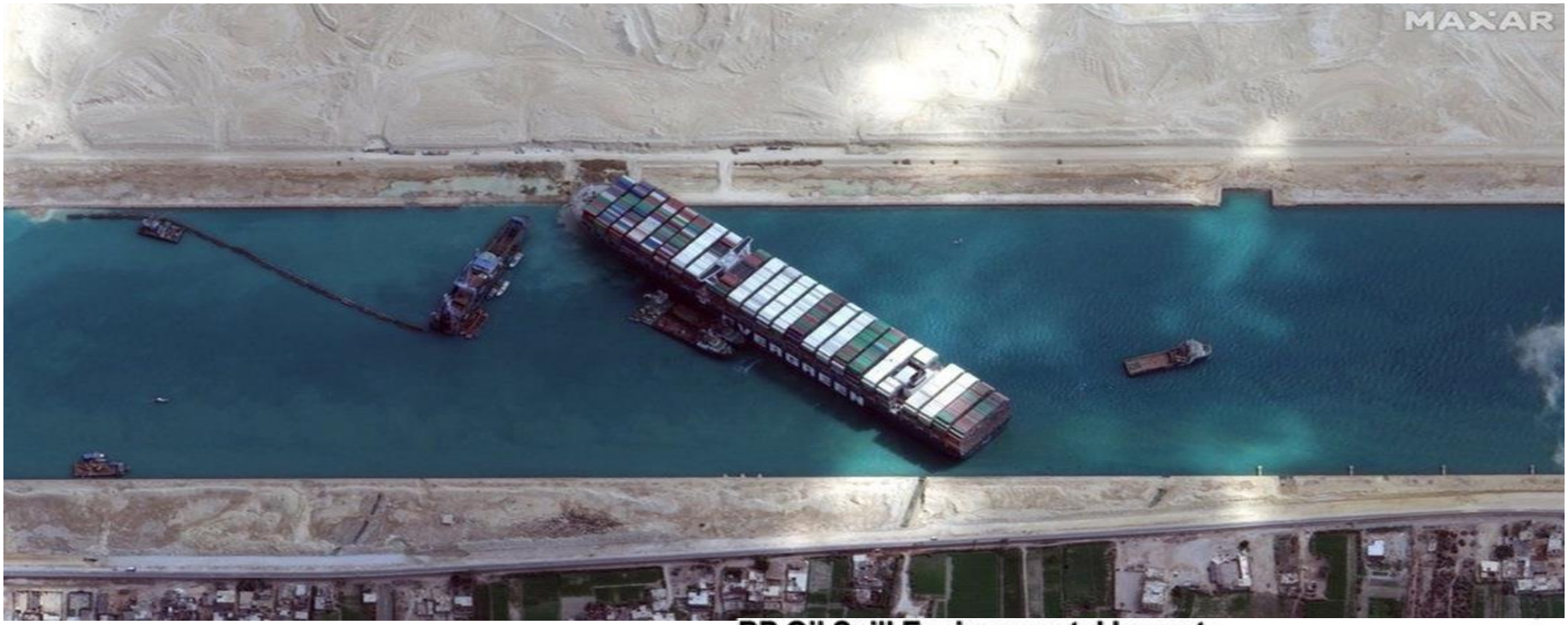


Implications

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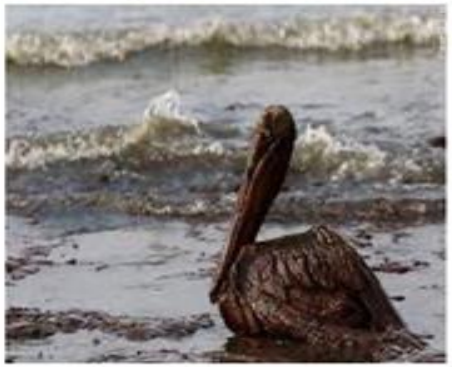
- Disruptions to critical maritime infrastructure (ports, shipping, submarine cables, offshore energy infrastructure) can weaken **supply chain resilience**, which in turn affects the availability and affordability of energy and food.

- Environmental Security- Oil spills ; Offshore infrastructure accidents



BP Oil Spill Environmental Impact











Reported Incidents

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TECHNOLOGY

Japan's biggest port, Nagoya, hit by suspected cyberattack

Ransomware shuts down Toyota's export hub



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Safety and Security, People, Ports and Terminals

DP World Australia hit by cyber attack

November 30, 2023

By Dom Magli

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Cyber attack hits state-owned terminal at India's JNPT

February 22, 2022

Facebook Twitter Linkedin Email



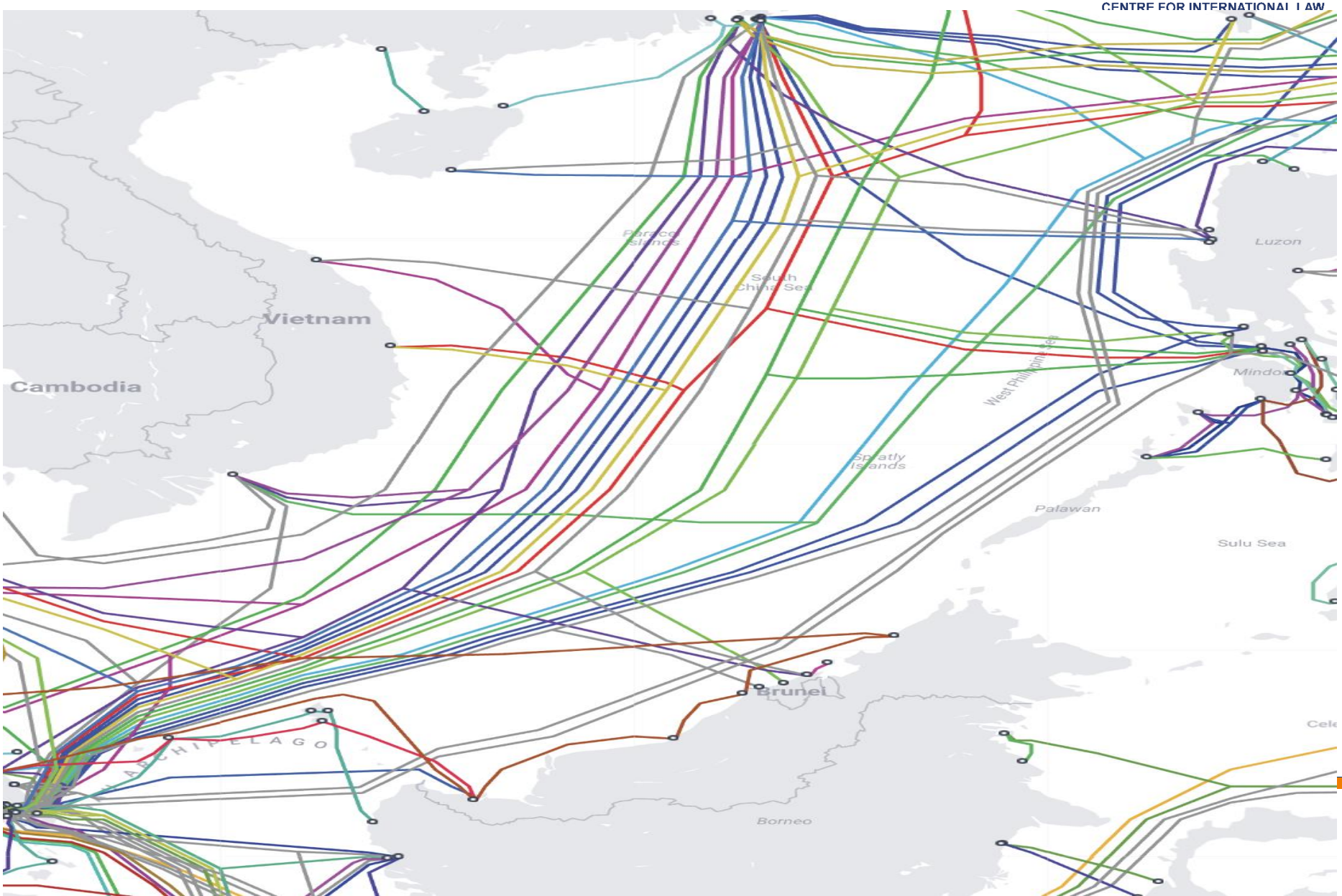
Significance of SCS for global shipping & trade

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- 80% of global trade by volume is transported by sea.
- The South China Sea carries approximately one third of global shipping
- **$5.3 trillion worth of goods transits through the South China Sea annually** (China Power, How Much Trade Transits the South China Sea?, 2026)

Submarine Cables Traffic in SCS

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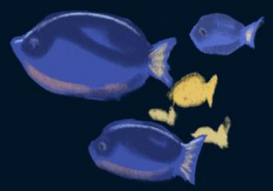


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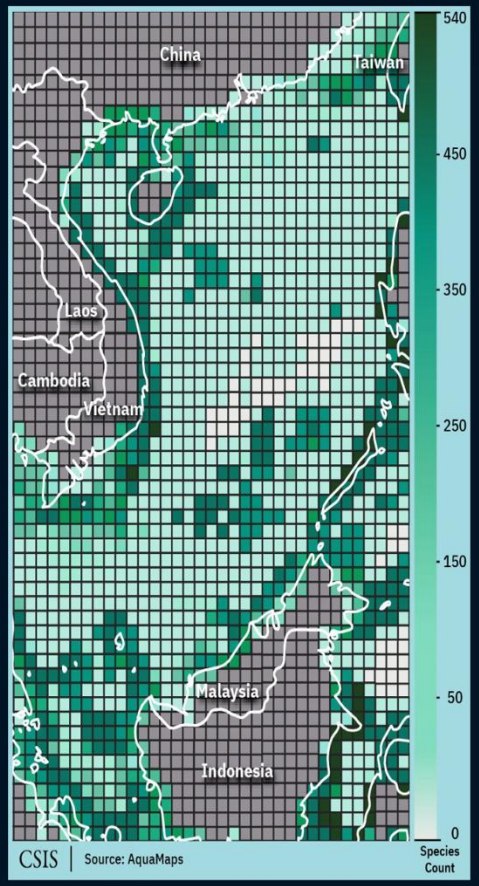
I. Life in the South China Sea II. Reef Destruction III. Overfishing IV. The Future of the South Chi

I. Understanding Life in the South China Sea



The South China Sea has one of the highest levels of marine biodiversity in the world.

It boasts over 6,500 marine species, each of which has a role to play in the success of this enormous, interconnected ecosystem.



This map of the biodiversity of hard coral shows the density of species scattered throughout the South China Sea.

Closing Remark!

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Unlike many traditional South China Sea issues, which concern maritime boundaries and the exercise of jurisdiction, cyber threats do not respect maritime boundaries.

A cyberattack on critical maritime infrastructure can have transboundary and cascading effects across shipping, energy, communications, and supply chains, while the difficulty of attribution complicates legal accountability and response.

This makes cooperation, not just jurisdiction, a key element of resilience.