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Gateway to growth: Borneo's ports & the promise of BIMP-EAGA connectivity

BORNEO
INTERNATIONAL
MARITIME WEEK 2025
Gearing towards a Sustainable Maritime Logistics Hub for BIMP-EAGA

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Haskoning is an independent international engineering and project management consultancy.



Haskoning is a leading independent, international engineering consultancy service provider with roots established in the Netherlands, the United Kingdom and South Africa. Its headquarters are in Amersfoort, the Netherlands. Originally founded in 1881, the company celebrated its 140th anniversary in 2021.

Who we are

6,000

Colleagues

95

Nationalities

25

Countries

140

Years of experience

We cover a wide range of infrastructure assets, offering services that ranges from consultancy, engineering design, software and technology. The company is operated globally, which allows deployment between countries.

What we do



Aviation



Buildings



Energy



Industry



Infrastructure



Maritime



Urban development



Water

Services: Consulting, Planning, Designing, Project Management, Asset Management, and Digital Service



Due diligence



Feasibility studies



Port master planning



Marine Design and
Construction Services



Tender documents,
Evaluation of bids



Logistic Chain
Development



Port and Shipyard
operation and
maintenance



Port & Shipping
Economics

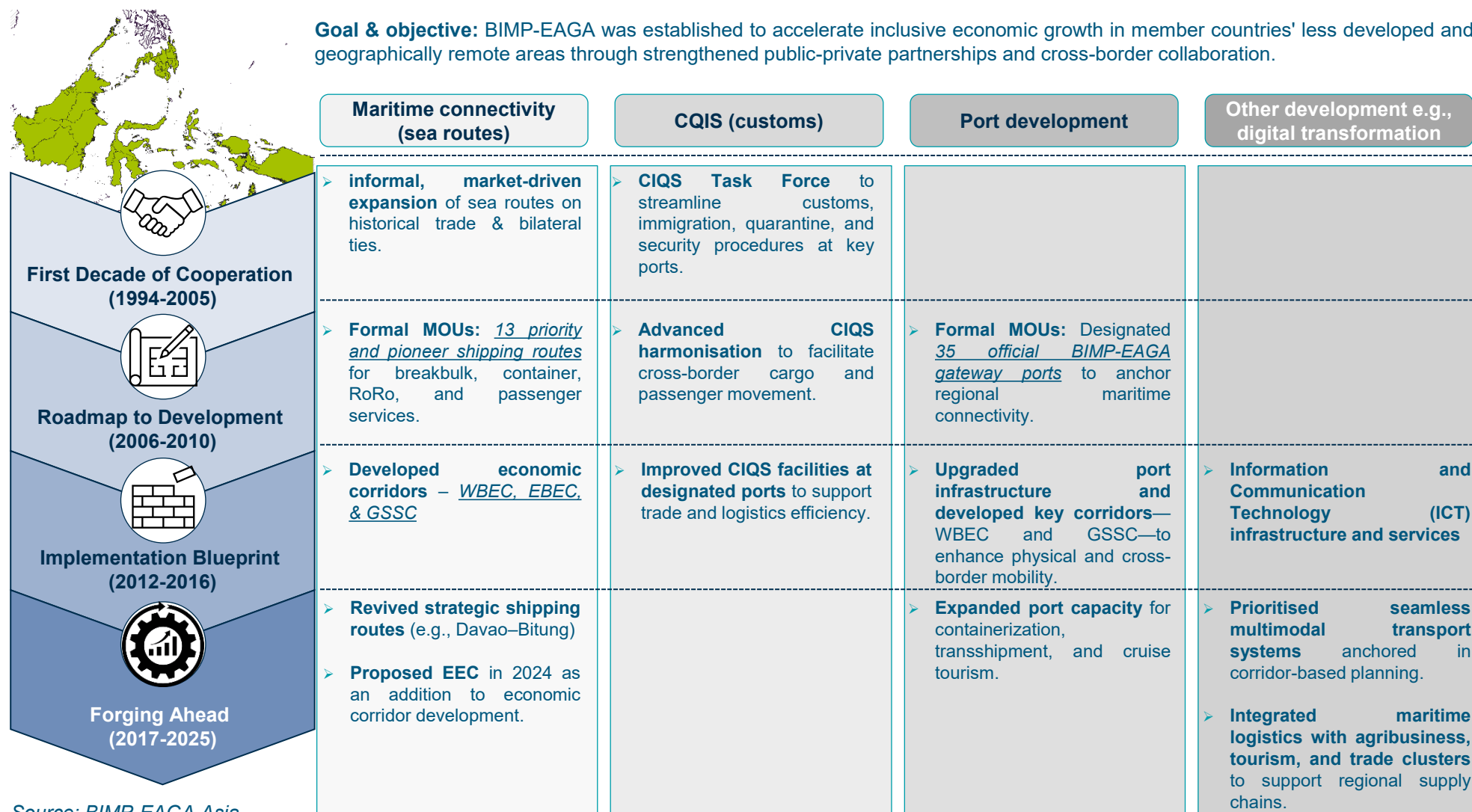


Smart Ports, Energy
Efficiency &
Sustainability



Nautical, mooring,
electrical &
mechanical,
geotechnical studies

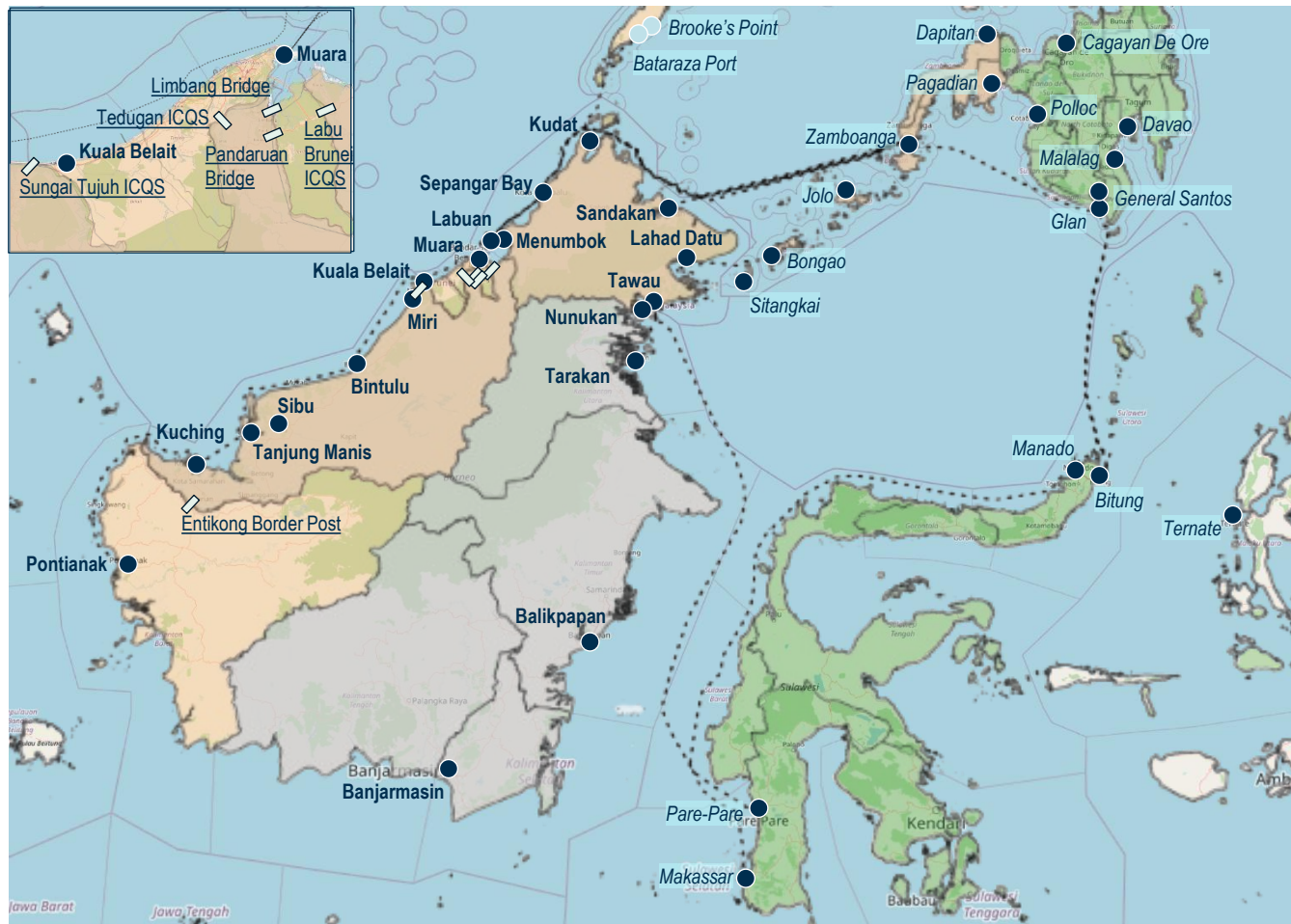
BIMP-EAGA's early initiatives established maritime trade as a catalyst for integrating remote regions. Key infrastructure was prioritized and developed through economic corridors, with ongoing upgrades and technology integration enhancing freight and passenger flow



Source: BIMP-EAGA Asia

Borneo hosts 19 designated gateway ports across its West & East Economic Corridors. Around 70% of freight and passenger movement occurs within Borneo, aligned with BIMP-EAGA's prioritized port-pair routes. Ongoing CIQS harmonization reflects deeper cross-border logistics integration.

Port and Corridor Integration: Borneo–Mindanao–Sulawesi Maritime Linkages



BIMP-EAGA

Borneo

Designated gateway port (MOU Sea Linkage 2007)



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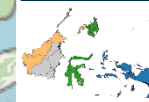
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Objective of the designated gateway port:

- facilitate intra-regional maritime trade
- streamline cross-border movement
- Support new shipping services, especially in the underserved routes

Borneo

Economic corridors



- **BIMP-EAGA:** WBEC, EBEC, GSSC, & EEC
- **Borneo:** WBEC & EBEC

Strategic & priority shipping connectivity



Borneo port-pairs: 23

- Within Borneo: 16 [69.6%]
- Outside Borneo: 7 [30.4%]

Approach

- Prioritize routes from MOU 2007, BIMP-EAGA publications, and economic corridors.
- Includes port pairs with both origin & destination located in Borneo for analysis

Customs, Immigration, Quarantine & Security (CIQS) & border crossings

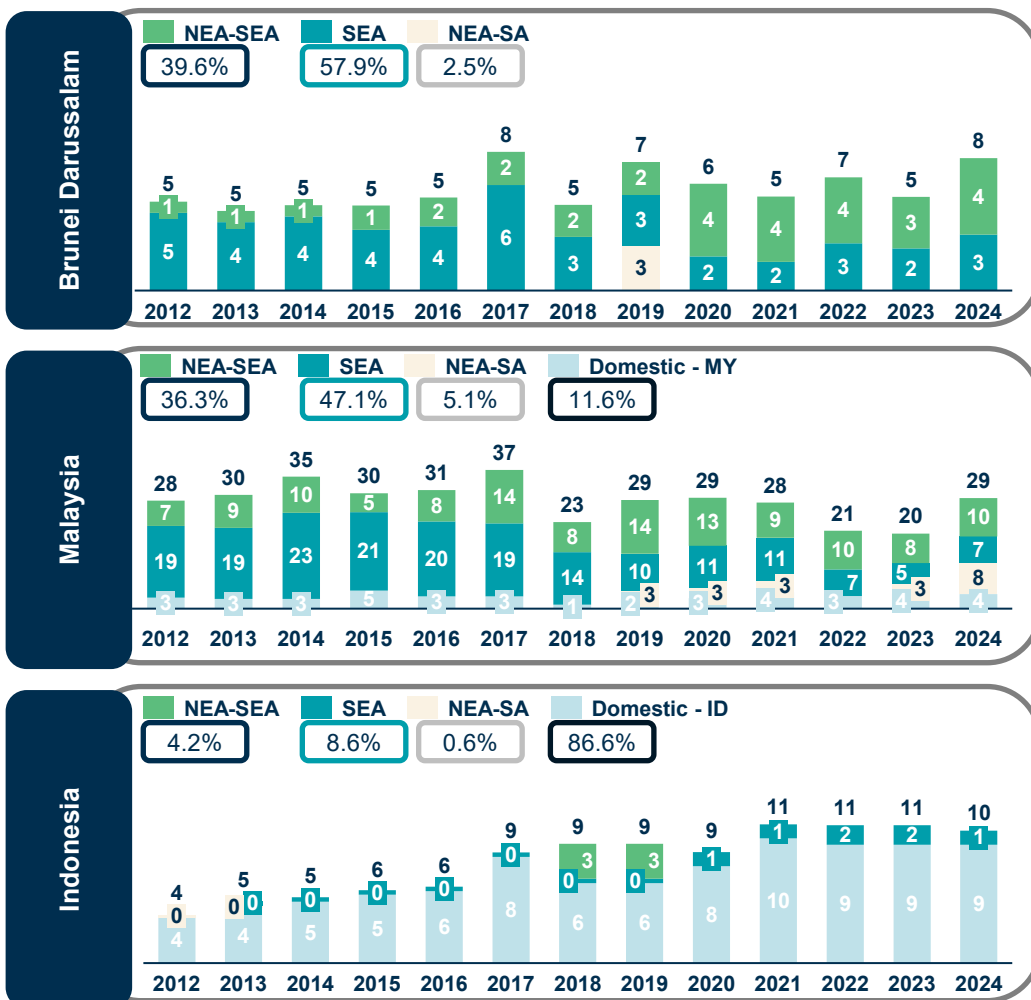


- Brunei Darussalam – Malaysia: 5
- Indonesia – Malaysia: 1

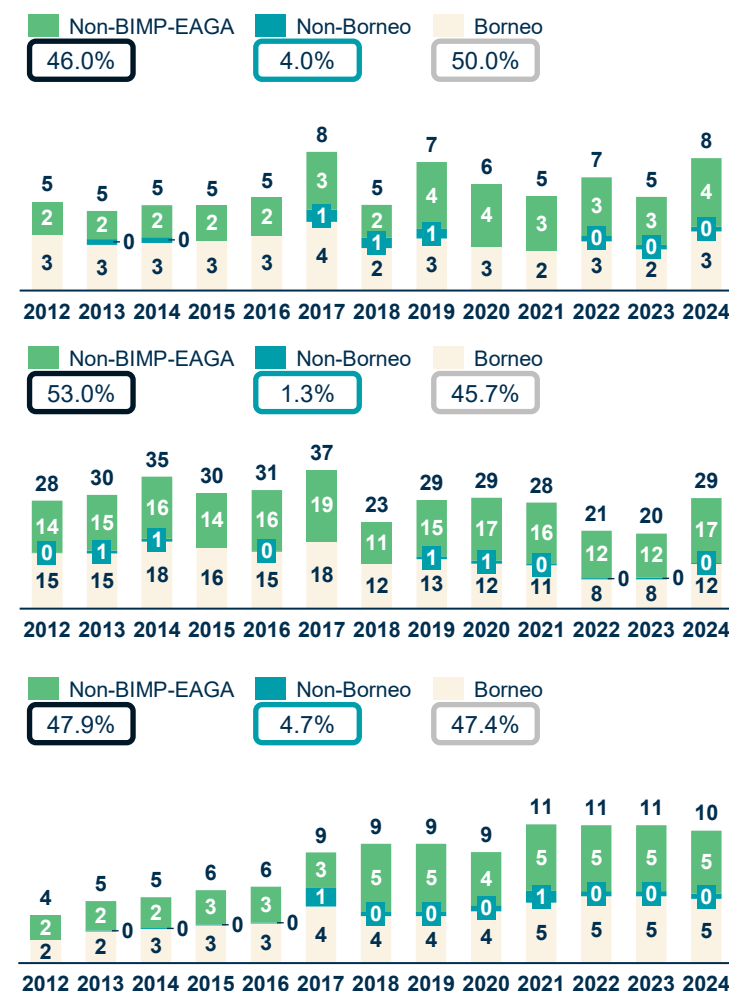
Source" BIMP-EAGA Asia, Google Map

Using containerized trade as reference for Borneo trade development and partnerships. Prioritized shipping routes under BIMP-EAGA have enabled intra-Borneo container flows to rival Southeast Asia and Far East volumes, with short-sea demand favoring feeder vessels over deep-draft infrastructure.

Route-based weekly capacity and market share analysis of Borneo ports , 2012-2024 ('000 TEU)



Alternate view – Container trade facilitation through Borneo ports by regional interaction, 2012-2024 (TEU)



Vessel size and range



2024
435 ~ 1,810 TEU



2024
110 ~ 2,806 TEU



2024
120 ~ 1,510 TEU

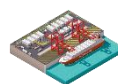
Evergreen – JPI, Evergreen - CPM2

Recent BIMP-EAGA developments focus on CIQS harmonization to reduce border inefficiencies and enhance trade and mobility. In Borneo, PIPs at ports & logistics corridors aims to improve cargo and passenger flows, with pilot nodes guiding phased upgrades and cross-border coordination.

Overview of seaports upgrades and border links via Trans-Borneo Highways for CIQS alignment in Borneo



Borneo: Pilot Ports & border crossings involved in CIQS harmonisation



➤ Muara, Sandakan, Labuan



➤ Entikong Border Post (Entikong – Tebedu)

Ports

Border crossings

Borneo-specific Priority Infrastructure Projects (PIP) for in WBEC & EBEC contribute to CIQS harmonisation

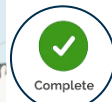
PIP: Seaport



Dredging



In-Progress



Complete

➤ Dredging of Miri Port [Q1 2027]

➤ Capital dredging of Sungai Sarawak
➤ Dredging of Tawau Port



Port expansion

➤ Muara port expansion [Q2 2027]
➤ Sepangar Bay Container Port expansion [2026]



Port Development

➤ Lahad Datu POIC Container Port
➤ Bintulu LNG ISO Tank Export Facilities
➤ Borneo gateway system

PIP: Roads & Bridges

■ **Borneo cross-border connectivity:** The Trans-Borneo Highway, a flagship PIP, strengthens land connectivity across Kalimantan, Sabah, Sarawak, and Brunei, linking with the Pan Borneo Highway and integrating key CIQS nodes to streamline border clearance. It advances BIMP-EAGA corridors, supports trade and tourism, and anchors logistics systems like the Borneo Gateway. Completion stands at over 99%, with final works pending in Sarikeo and Lambir.

■ **CIQS-linked road upgrades at Entikong border post:** Beyond the Trans-Borneo Highway, the Pontianak–Entikong link and Balai Karangan upgrade enhance access to Entikong–Tebedu and support CIQS harmonisation by improving cross-border flow and coordination.

■ **Logistic integration and CIQS diffusion across emerging corridors:** Key PIPs—including Kalabakan–Serudong and Pagalungan–Bantul roads with new CIQS facilities—enable direct Malaysia–Indonesia crossings in Sabah, bypassing Sarawak. These projects expand CIQS harmonisation to emerging nodes, boosting logistics integration in underlinked areas. Malaysia–Brunei coordination is similarly advancing via Limbang Phase 2.

Despite ongoing and completed projects to strengthen Borneo's logistics supply chain, key gaps remain—particularly in customs clearance, port infrastructure, and hinterland connectivity. These nodes continue to limit efficiency and highlight the need for further targeted improvements.

Limitation & challenges

CIQS harmonisation



- **Fragmented CIQS protocols:** Disjointed implementation across borders—such as at Sungai Tujoh and Tarakan—delays clearance and raises transaction costs, as highlighted in BEV 2025.
- **Disconnected customs systems:** Limited digital integration and data sharing between member states' customs platforms impede coordinated clearance and real-time processing.
- **Divergent standards & procedures:** Inconsistent inspection protocols and CIQS practices across Malaysia, Indonesia, and the Philippines hinder seamless cargo movement, especially for perishables.

Maritime development



- **Uneven port capabilities:** Many ports lack container, cold chain, and transshipment facilities—limiting cargo diversity and regional roles.
- **Draft limitation and aging assets:** Shallow berths and aging assets restrict vessel size and reduce operational efficiency.
- **Incomplete intermodal linkages:** Gaps between ports and hinterlands constrain throughput and corridor performance.

Logistic connectivity



- **Discontinuous road corridors:** gaps in networks like the Trans-Borneo Highway slow inter-port and cross-border movement.
- **Underserved last-mile zones:** Inadequate infrastructure in rural and interior areas limits access and logistic efficiency.
- **Unaligned vehicle standards:** Lack of harmonised axle road load limits and vehicle specifications across borders disrupts cross-border transport.

Examples

- **Sungai Tujoh:** Misaligned customs and immigration procedures—compounded by limited operating hours and the absence of a unified digital system.
- **Tarakan:** Persistent challenges in harmonising quarantine and customs procedures with Malaysia and the Philippines—where inconsistent inspection standards and limited system interoperability lead to disruptions to the flow of goods, especially perishables & seafood products.
- **Kudat & Tawau (Sabah):** Limited facilities for containerisation and cold storage, constraining their role in seafood export and regional logistics.
- **Labuan & Miri (Sarawak):** Constrained by hinterland connectivity with limited rail/high capacity road links to major inland production zones.
- **Trans-Borneo Highway:** Key stretches – especially between Sarawak & Kalimantan – remained incomplete/under-maintained
- **Interior Sabah & North Kalimantan:** Rural areas (e.g., Pensiangan in Sabah) & Malinau (Kalimantan) face poor road access, limiting connectivity at Tawau & Tarakan ports.
- **Axle load & vehicle specifications:** Differing axle load limits and vehicle classifications across Malaysia & Indonesia delay cross-border freight and require transshipment at border points.

While CIQS integration and protocol alignment remain central to improving cross-border flows, stakeholders and investors have opportunities to support maritime trade through corridor-based port development and logistics infrastructure that bridge coastal and hinterland linkages.

Opportunity & recommendation

Opportunity & recommendation	Strategic objective & transformation aim
CIQS Integration & standardisation  ➤ Standardise CIQS protocol across borders: Unified custom clearance & inspection procedures across BIMP-EAGA to ensure consistency – especially critical for time-sensitive cargoes. ➤ Upgrade and align digital customs platforms: Aim for parity in digital capabilities across all member states. Invest in interoperable digital systems for real-time data sharing and coordinated processing. ➤ Leverage lessons from pilot nodes: Systematically collect feedback from successful CIQS pilot sites and replicate proven practices at non-pilot crossings and ports. ➤ Institutionalise best practices regionwide: Develop a regional CIQS playbook based on pilot learnings to guide implementation, training and monitoring.	■ Clearance process acceleration ■ Reduced transaction costs ■ Enhance cargo integrity and trade facilitation ■ Deepen regional integration under BIMP-EAGA
Corridor-based port development  ➤ Upgrade port-based logistic infrastructure: Develop container yards, cold chain facilities, & transshipment hubs to support diversified cargo & regional trade roles. ➤ Established integrated logistic hubs: Position multimodal logistics centres near strategic ports to consolidate warehousing, value-added processing, and last-mile distribution.	■ Increase cargo throughput & modal efficiency ■ Strengthen competitiveness and corridor regional integration
Bridging coastal-hinterland trade linkage  ➤ Strengthen hinterland connectivity: Improve the road and rail linkages between ports and inland production zones—such as Kalimantan’s agro-industrial clusters and Mindanao’s fisheries—to facilitate exports and reduce logistics bottlenecks. ➤ Promote inclusive economic uplift: Enable inland communities to access broader markets, boosting local production, consumption, and living standards beyond coastal zones.	■ Expand export capacity for inland producers ■ Inclusive growth across the coastal and hinterland regions

BIMP-EAGA has improved port and inland connectivity, spurring growth in remote areas and linking coastal and hinterland regions. Strengthening trade nodes and integration remains key. Models like BPG offer replicable success, but progress depends on sustained public-private collaboration.

- **Goal & Objective:** The BIMP-EAGA was established to accelerate inclusive economic growth in the less developed and geographically remote areas of member countries through strengthened public-private partnerships and cross-border collaboration.

Promise of port development and maritime connectivity

- Revitalization and promotion of underutilized strategic shipping routes
- Designated priority infrastructure projects (PIP) Initiatives advancing maritime, inland, and cross-border connectivity
- Customs Immigration Quarantine & Security (CIQS) harmonization initiation

Hinterland of Borneo regional trade & economic development with reference to containerized trade

- Half of Borneo's container trade is intra-regional, making CIQS harmonisation within Borneo a priority before scaling it up to BIMP-EAGA.
- East Malaysia and Brunei primarily trade with Southeast Asia; Kalimantan trades mainly with other Indonesian islands.

Challenges



- Fragmented CIQS protocols
- Disconnected customs systems
- Divergent standards & procedures



- Uneven port capabilities
- Draft limitation and ageing assets
- Incomplete intermodal linkages



- Discontinuous road corridors
- Underserved last-mile zones
- Unaligned vehicle standards

Recommendation

- Standardise CIQS protocol across borders
- Upgrade and align digital customs platforms
- Leverage lessons from pilot nodes
- Institutionalise best practices regionwide

- Upgrade port-based logistic infrastructure
- Established integrated logistics hubs

- Strengthen hinterland connectivity
- Promote inclusive economic uplift

Key recent BIMP-EAGA maritime development

- **[Sapangar Bay]** In 2024, Sabah Ports partnered with DP World and designated Sapangar Bay Port as a dedicated transshipment hub for the BIMP-EAGA region. Plans are underway to expand its capacity, aiming to double its current cargo handling volume.
- **[Borneo Port System]** The software system was fully implemented in 2023 and became mandatory for port submissions, streamlining and digitising documentation and processes, with a primary focus on Bintulu Port.

Moving forward...



Due diligence



Feasibility studies

- Stakeholders may consider conducting market scans or economic studies to identify key import-export hinterlands and strengthen port connectivity through logistics hub development or ongoing improvements to Borneo's road and rail infrastructure.