

Policy Brief

Strengthening Open Government Data for Digital Cooperation in ASEAN

Mahirah Mahusin and Hilmy Prilliadi

Key Messages:

- ASEAN's OGD landscape is progressing but remains uneven, constrained by limited infrastructure, regulatory gaps, and low levels of public engagement.
- Strengthening national OGD ecosystems requires targeted capacity building, robust governance mechanisms, and sectoral strategies aligned with broader development objectives.
- The ASEAN Digital Economy Framework Agreement (DEFA) provides a strategic platform to advance cross-border data co-operation by embedding OGD provisions with minimum standards for accessibility, quality, and reusability.
- A regional OGD framework, aligned with global best practices, can enhance interoperability, build institutional capacity, and enable sector-specific applications in areas such as public health, disaster response, and climate action.
- Incentivising OGD use amongst MSMEs, start-ups, and research institutions can unlock greater economic value while improving both the quality and impact of open data.

Open Government Data (OGD) can play a pivotal role in advancing data-driven policymaking and fostering innovation, particularly in addressing complex challenges such as climate change, inequality, and urbanisation. Despite progress in several ASEAN Member States, however, OGD development across the region remains fragmented and constrained by regulatory, cultural, technical, and institutional gaps. The absence of regional standardisation and a clear sectoral lead continues to limit cross-border co-operation and the realisation of shared economic and social benefits.

Integrating OGD frameworks and provisions into trade and digital economy agreements – most notably the forthcoming ASEAN Digital Economy Framework Agreement (DEFA) – offers a strategic opportunity to establish a common foundation for data accessibility, usability, and protection. Drawing on lessons from international agreements and global open data initiatives, this policy brief provides practical recommendations to strengthen OGD ecosystems in ASEAN, including targeted capacity building, sector-specific applications, and collaborative mechanisms to align national initiatives with regional priorities.

Introduction

Open Government Data (OGD) refers to publicly available data produced by the public sector that is free to access, use, and share. Well-designed OGD initiatives improve public service delivery and support data-driven policymaking by reducing inefficiencies and streamlining government operations. They also strengthen participatory governance by enabling access to information and fostering informed civic engagement. In addition, OGD generates economic value by driving innovation and supporting data-driven industries that leverage open data to develop new products and services. Optimising OGD use could generate over US\$3 trillion annually across sectors such as healthcare, transport, and energy (Chui et al., 2014).

For ASEAN, the potential of OGD is particularly significant. The region's digital economy is projected to contribute US\$1 trillion to GDP by 2030 (Google et al., 2023). OGD can help address cross-cutting challenges such as rapid urbanisation, economic inequality, and climate sustainability, while also advancing progress towards the Sustainable Development Goals. Concrete examples already exist: Singapore's MyTransport.SG platform uses open transport data to improve commuter experience and support sustainable urban mobility, while in the Philippines, PhilGEPS and the New Government Procurement Act of 2024 have strengthened transparency and interoperability in public procurement (Open Government Partnership, n.d.; Sukawan and Rachmawati, 2021).

Mahirah Mahusin

Manager for Digital Innovation and Sustainable Economy at ERIA

Hilmy Prilliadi

Research Associate at ERIA

Despite such advances, scaling OGD across the region faces persistent barriers. Concerns over privacy, fragmented regulations, data localisation requirements, limited infrastructure, and a shortage of technical expertise frequently slow progress. Effective release of data at scale also demands resources for standardisation, metadata preparation, and hosting infrastructure. At the societal level, low public awareness and weak cultures of openness further constrain meaningful use and participation.

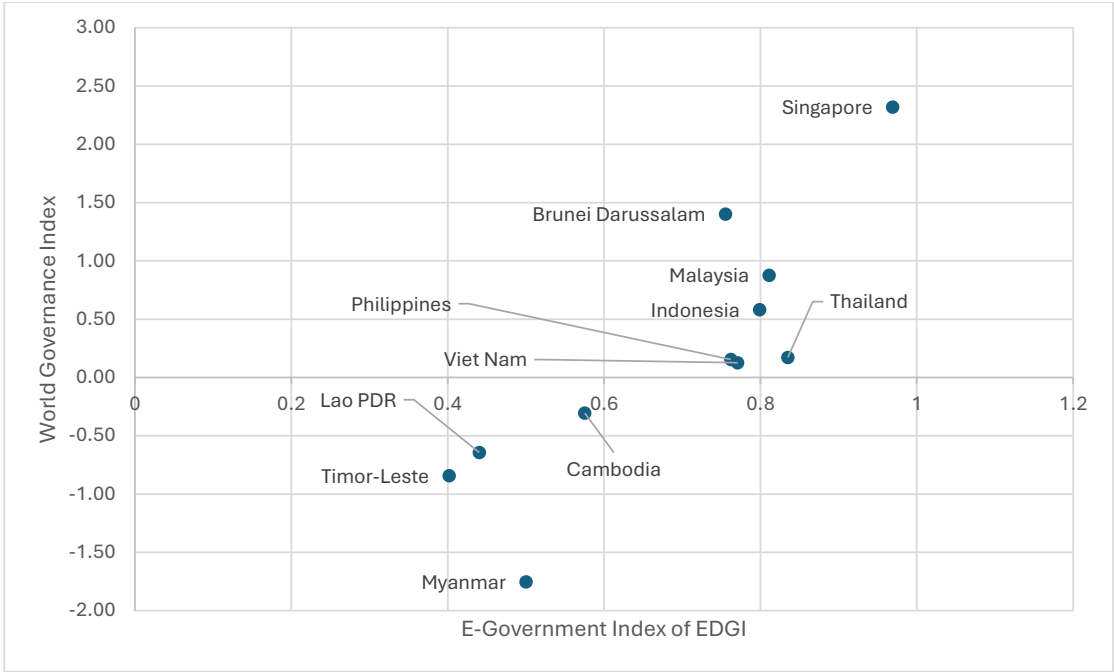
A growing body of critique also highlights the uneven distribution of OGD benefits. Large technology companies, with the resources to aggregate and combine open data with proprietary datasets, often capture disproportionate value, raising concerns that OGD could entrench rather than reduce market concentration. In response, some jurisdictions are exploring legally mandated data-sharing frameworks, reciprocity-based licensing terms requiring private actors to share derived data back with the public, and tiered access regimes designed to balance openness with safeguards for equity and competition (Mazur and Słok-Wódkowska, 2022).

This policy brief examines the current state of OGD in ASEAN, identifies key challenges and policy gaps, and offers targeted recommendations to advance OGD development through the ASEAN Digital Economy Framework Agreement (DEFA). The analysis emphasises the establishment of minimum regional standards, capacity building, and inclusive stakeholder engagement to drive digital transformation and unlock shared regional benefits.

State of Open Government Data in ASEAN

A useful indicator for assessing the state of OGD in ASEAN is the E-Government Development Index (EGDI), which is positively associated with stronger governance outcomes. Figure 1 illustrates a clear correlation between EGDI and the Worldwide Governance Indicators (WGI), suggesting that ASEAN Member States with more advanced digital infrastructure and e-government capabilities tend to perform better on governance.

Figure 1. Correlation Between EGDI and WGI in ASEAN



Source: United Nations, n.d.; World Bank, n.d.

This reinforces the importance of sustained investment in digital systems and public sector innovation to advance transparency, accountability, and service delivery across the region.

OGD initiatives in ASEAN began to take shape in the 2010s. Singapore was an early pioneer, launching data.gov.sg in 2011, followed by the Trusted Data Sharing Framework, the Data Collaboratives Program,

and a Regulatory Sandbox to foster business-driven data innovation. Malaysia introduced its National Data Sharing Policy (NDSP) in 2014, supported by the Public Sector Data Sharing Policy (DPDSA) to enable structured data exchange across public and private sectors. That same year, Brunei Darussalam established data.gov.bn to expand access to government information.

Thailand advanced its OGD agenda in 2019 through the Digitalization of Public Administration and Services Delivery Act, supported by its Open Data Framework. Viet Nam launched its national open data portal (data.gov.vn) in 2020, following Resolution No. 17 and Decree No. 47/2020/ND-CP, which emphasise linking national databases and regulating data sharing amongst state agencies. Also in 2020, the Philippines issued Circular No. 2020-03 to guide inter-agency data sharing under its Data Privacy Act, while the Anti-Red Tape Authority (ARTA) began streamlining public sector data exchange processes. Indonesia launched One Data Indonesia in 2022 to strengthen data standardisation, interoperability, and electronic-based government systems.

Despite this progress, the availability, quality, consistency, and granularity of datasets vary significantly across these initiatives. For OGD to create maximum value, improving data quality is essential – not only for governance and service delivery but also for training artificial intelligence (AI) systems. High-quality, diverse, and well-structured datasets form the foundation of accurate AI models, enabling both public and private sectors to harness emerging technologies for broader social and economic benefit.

At the regional level, ASEAN has also undertaken initiatives to foster OGD cooperation, though interoperability remains a key challenge. The ASEAN Open Data Network under the Master Plan on ASEAN Connectivity (MPAC) 2025 aims to promote cross-border data interoperability. As part of this effort, the ASEAN Open Data Dictionary was launched in 2021, inspired by the Republic of Korea's open data technology. However, progress has stalled due to the absence of a clear sectoral lead, reflecting reluctance to push the initiative forward.

Other ASEAN frameworks have shown stronger momentum. The ASEAN Data Management Framework (DMF) and Model Contractual Clauses for Cross-Border Data Flows (MCCs) provide businesses, including MSMEs, with tools to improve data governance and security. Collectively, these initiatives highlight an emerging opportunity for greater regional alignment on OGD and position.

ODG in Trade Agreements and Regional Frameworks

Beyond national and regional initiatives, Open Government Data (OGD) has gained recognition in international trade and digital economy agreements (DEAs), reflecting its strategic role in fostering transparency and innovation. Several Free Trade Agreements (FTAs) and DEAs – such as the United States–Mexico–Canada Agreement (USMCA) and the New Zealand–United Kingdom FTA – include provisions to improve public access to and the quality of government data, albeit with varying degrees of

commitment. These typically encourage the publication of data in machine-readable formats and introduce mechanisms for requesting government datasets, while stopping short of mandating broader transparency obligations.

The Digital Economy Partnership Agreement (DEPA) was the first non-bilateral FTA to feature explicit OGD provisions. It goes further by outlining areas of co-operation, such as access to high-value datasets in mutually identified sectors, and the development of open data licensing models that address intellectual property rights while enabling free use of open data. DEPA-inspired provisions are also found in subsequent agreements, including the Australia–Singapore DEA, the Australia–UK FTA, the Singapore–UK DEA, and the Korea–Singapore DEA, which support voluntary data-sharing initiatives.

In ASEAN, the Regional Comprehensive Economic Partnership (RCEP) does not contain OGD provisions. By contrast, the upgraded ASEAN–Australia–New Zealand Free Trade Area (AANZFTA) includes an article on OGD that promotes publication in open, machine-readable formats and encourages cross-border co-operation to improve public access to government data. These commitments are designed to support micro, small, and medium-sized enterprises (MSMEs) and facilitate digital trade, while respecting national laws on data protection and intellectual property. The upgraded AANZFTA also recognises different levels of readiness across ASEAN, allowing Cambodia, Lao PDR, and Myanmar a 5-year transition period before the OGD provisions take effect. Further guidance can be drawn from more flexible frameworks such as the APEC Non-Binding Principles for Facilitating Access to Open Government Data, which are designed to accommodate diverse levels of digital readiness. A balanced approach – promoting transparency and innovation while addressing concerns around competition, data privacy, and equity – will be crucial for enabling cross-border collaboration. At the same time, maximising the economic and civic potential of OGD will require institutional support under the ASEAN Digital Economy Framework Agreement (DEFA), extending beyond technical enablers to ensure inclusive access and alignment with broader regional development priorities.

Policy Recommendations

While OGD provisions in regional and international agreements are generally flexible, their implementation may still exceed the current capacity of ASEAN Member States that are at an early stage of OGD development. Building an ASEAN OGD ecosystem should therefore focus on promoting innovation through data openness, supported by dialogue and capacity-building at both national and regional levels.

Such efforts can foster a culture of collaboration and openness in collecting, sharing, and using OGD across ASEAN Member States. Exchanges of good practices, sector-specific use cases, and lessons from successful international models – such as the European Union’s Open Government Data Initiative – can provide valuable insights for ASEAN.

A roadmap for action is proposed as follows:

- Integrate OGD provisions on a best-endeavour basis into DEFA, establishing minimum standards for accessibility, readability, and quality.
- Develop an ASEAN-wide open data framework with guidelines on classification, privacy protection, and stakeholder engagement, enabling national initiatives to align with regional priorities and enhance cross-border interoperability.
- Adopt a sectoral approach to open data collaboration, with emphasis on shared challenges such as climate change, disaster management, and public health. Statistical capacity-building, improved metadata requirements, and enhanced dataset quality can be pursued through mechanisms such as the ASEAN Community Statistical System Committee.
- Strengthen institutional capacity and governance through targeted capacity-building programmes that promote best practices, drawing on frameworks such as ISO/IEC 38505, the Open Data Charter (ODC), and the FAIR principles.
- Stimulate OGD usage by incentivising startups, MSMEs, and research institutions to innovate with open data and contribute to improving dataset quality. Hackathons, innovation challenges, and grants can be used to support evidence-based policymaking and academic advancements.

References

- Chui, M., D. Farrell, and K. Jackson (2014), How Government Can Promote Open Data and Help Unleash Over \$3 Trillion in Economic Value. [https://www.mckinsey.com/~media/mckinsey/industries/public%20and%20social%20sector/our%20insights/how%20government%20can%20promote%20open%20data/how_govt_can_promote_open_data_and_help_unleash_over_\\$3_trillion_in_economic_value.pdf](https://www.mckinsey.com/~media/mckinsey/industries/public%20and%20social%20sector/our%20insights/how%20government%20can%20promote%20open%20data/how_govt_can_promote_open_data_and_help_unleash_over_$3_trillion_in_economic_value.pdf)
- Google, Temasek, and Bain & Company (2023), e-Conomy SEA 2023. <https://economysea.withgoogle.com/report/>
- Mazur, J. and M. Stok-Wódkowska (2022), 'Access to Information and Data in International Law', *Nordic Journal of International Law*, 91(2), pp.310–38. <https://doi.org/10.1163/15718107-91020004>
- Open Government Partnership (n.d.), How the Philippines is Transforming Public Procurement. Retrieved 26 August 2025, from <https://www.opengovpartnership.org/philippines-public-procurement-story/>
- Sukawan, H.A.R. and R. Rachmawati (2021), 'MyTransport.SG as a New Communication Platform in Implementing Smart Mobility in Singapore', *Journal of Physics: Conference Series*, 1834(1), 012006. <https://doi.org/10.1088/1742-6596/1834/1/012006>
- United Nations (n.d.). E-Government Development Index (EGDI). UN E-Government Knowledgebase. Retrieved 17 February 2025, from <https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index>
- World Bank (n.d.). Worldwide Governance Indicators. Retrieved 18 February 2025, from <https://www.worldbank.org/en/publication/worldwide-governance-indicators>

©ERIA, 2025.

DISCLAIMER:

The findings, interpretations, and conclusions expressed herein do not necessarily reflect the views and policies of the Economic Research Institute for ASEAN and East Asia, its Governing Board, Academic Advisory Council, or the Institutions and governments they represent. All rights reserved. Material in this publication may be freely quoted or reprinted with proper acknowledgement.



Sentral Senayan II, 5th, 6th, 15th floors
Jalan Asia Afrika No. 8
Senayan, Central Jakarta 10270, Indonesia
Tel: (62-21) 57974460 Fax: (62-21) 57974463
E-mail: contactus@eria.org

